



PRELIMINARY ENVIRONMENTAL ASSESSMENT EQUIVALENT REPORT

SEPTEMBER 2017

THEODORE ROOSEVELT SENIOR HIGH SCHOOL
456 South Mathews Street
Los Angeles, California 90033

TRC Project Number: 265642

Prepared For:
Los Angeles Unified School District
Office of Environmental Health and Safety
333 S. Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Prepared By:



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Irvine, California 92618
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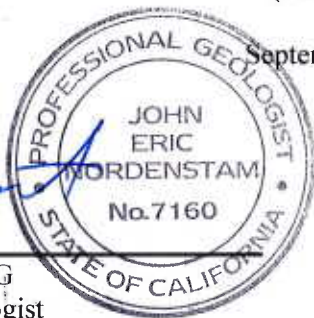


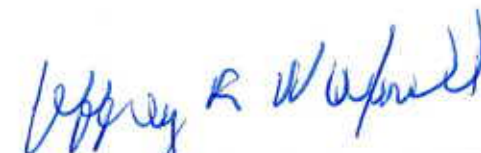
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TABLE OF CONTENTS

SECTION	PAGE
1.0 INTRODUCTION	1
1.1 PEA OBJECTIVES	1
1.2 SCOPE OF WORK	2
1.3 PEA REPORT FORMAT	4
2.0 SITE DESCRIPTION	5
2.1 SITE NAME AND ADDRESS	5
2.2 DESIGNATED CONTACT	5
2.3 MAILING ADDRESS	5
2.4 TELEPHONE NUMBER	5
2.5 OTHER SITE NAMES	5
2.6 REGULATORY IDENTIFICATION NUMBERS	5
2.7 ASSESSOR'S PARCEL NUMBER	5
2.8 GEOGRAPHIC COORDINATES	6
2.9 SITE LAND USE AND ZONING	6
2.10 SITE MAPS	6
3.0 BACKGROUND	6
3.1 CURRENT SITE USE	6
3.2 HISTORICAL SITE USE	6
3.3 SURROUNDING LAND USES	6
3.4 PRIOR SITE INVESTIGATION	7
4.0 APPARENT PROBLEM	7
5.0 ENVIRONMENTAL SETTING	7
5.1 FACTORS RELATED TO SOIL PATHWAYS	7
5.1.1 Site Topography	7
5.1.2 Proximity to Surface Water Bodies	7
5.1.3 Evidence of Releases to the Environment	8
5.1.4 Site Geology and Soil Types	8
5.1.5 Oil and Gas Review	8
5.1.6 Proximity to Nearby Receptors	8
5.2 FACTORS RELATED TO WATER PATHWAYS	9
5.2.1 Groundwater	9
5.2.2 Surface Water	9

5.3	FACTORS RELATED TO AIR PATHWAYS.....	10
6.0	SOIL AND SOIL GAS SAMPLING PROGRAM.....	10
6.1	SUMMARY OF ACTIVITIES	10
6.2	PRE-FIELD ACTIVITIES	11
6.4	SOIL SAMPLE COLLECTION AND ANALYSIS	12
6.4.1	Sample Locations and Rationale.....	12
6.4.2	Boring Advancement and Sample Collection Procedures	14
6.4.3	Sample Handling Procedures	15
6.4.4	Soil Matrix Analytical Procedures	16
6.4.5	Summary of Analytical Results	17
6.5	SOIL GAS SAMPLING AND ANALYSIS.....	19
6.5.1	Sample Locations and Rationale.....	19
6.5.2	Methane Probe Installation	19
6.5.3	Methane Probe Monitoring and Sampling.....	20
6.5.4	Laboratory Analysis of Soil Gas Samples.....	21
6.5.5	Methane Probe Abandonment	21
6.6	INVESTIGATION-DERIVED WASTE	23
7.0	HUMAN HEALTH AND ECOLOGICAL SCREENING EVALUATIONS	23
7.1	HUMAN HEALTH SCREENING EVALUATION.....	23
7.2	ECOLOGICAL SCREENING EVALUATION	24
8.0	DELINEATION OF AREAS OF IMPACTED SOIL	24
9.0	QUALITY ASSURANCE/QUALITY CONTROL	25
10.0	FIELD VARIANCES	26
11.0	CONCLUSIONS AND RECOMMENDATIONS	26
11.1	SUMMARY AND CONCLUSIONS	26
11.2	RECOMMENDATIONS	28
12.0	REFERENCES.....	29

FIGURES

- 1 Site Vicinity Map
- 2 Site Plan
- 3 Area 2 Sampling Locations
- 3A Area 2 Proposed Excavation Locations
- 4 Area 3 Sampling Locations
- 4A Area 3 Proposed Excavation Locations
- 5 Area 5 Sampling Locations
- 5A Area 5 Proposed Excavation Locations
- 6 Area 6 Sampling Locations
- 6A Area 6 Proposed Excavation Locations
- 7 Area 8 Sampling Locations
- 8 Area 9 Sampling Locations
- 8A Area 9 Proposed Excavation Locations
- 9 Hydraulic Hoist and Clarifier Sampling Locations
- 9A Hydraulic Hoist and Clarifier Proposed Excavation Locations

TABLES

- 1 General Site Screening Soil Sample Results – Arsenic, Lead, OCPs, and PCBs
- 2 Summary of Hydraulic Hoist, Clarifier, and Fill Material Soil Sample Results – TPH, VOCs, SVOCs, OCPs, PCBs, and Metals
- 3A Summary of Field Measurements and Laboratory Analysis of Vapor Samples – Methane, Hydrogen Sulfide, Oxygen, and Carbon Dioxide
- 3B Laboratory Analysis of Vapor Samples – Volatile Organic Compounds
- 4A Summary of Proposed Excavation Volumes
- 4B Summary of California Hazardous Lead Excavation Volumes

APPENDICES

- A Proposed PEA Investigation
- B DOGGR Oil Well Records
- C Field Work Notice
- D Geophysical Survey Reports
- E Soil Boring Logs
- F Official Laboratory Reports and Chain of Custody Records – Soil Samples
- G Field Data Sheets for Methane Investigation
- H Official Laboratory Reports and Chain of Custody Records – Soil Gas Samples

1.0 INTRODUCTION

TRC Solutions, Inc. (TRC), on behalf of the Los Angeles Unified School District, Office of Environmental Health and Safety (LAUSD), has prepared this Preliminary Environmental Assessment (PEA) Equivalent Report for Theodore Roosevelt Senior High School (Roosevelt High School or Site), located at 456 South Mathews Street, Los Angeles, California (Site). See Figures 1 and 2 for the site location. Roosevelt High School is scheduled for a comprehensive modernization project involving removal and/or renovation of multiple site structures. In preparation for the school improvements and renovations, this PEA has been completed to investigate recognized environmental conditions (RECs) identified in a Phase I Environmental Site Assessment (Phase I ESA) completed by Converse Consultants in August 2016 (Converse, 2016).

The PEA investigation was conducted in accordance with the work scope provided by the LAUSD (see Appendix A). The PEA Equivalent Report was prepared following the guidelines of the California Environmental Protection Agency (Cal EPA) and Department of Toxic Substances Control (DTSC), as detailed in the *PEA Guidance Manual* (January 1994, Interim Final – Revised October 2013).

1.1 PEA OBJECTIVES

Roosevelt High School is currently an operational LAUSD school scheduled for a comprehensive modernization project involving removal and/or renovation of multiple site structures. The proposed renovation will include demolition of the music building, gymnasium, auditorium/classroom building, industrial arts building, four classroom buildings, and 19 portable classroom buildings. New buildings proposed for construction will include a general classroom building, a science and specialty classroom building, a gymnasium, an auditorium, a lunch shelter, and a health/wellness clinic.

In preparation and prior to the modernization and construction activities, the LAUSD would like to identify any environmental issues in the project area. As previously mentioned, a Phase I ESA was completed by Converse in August 2016 that identified certain potential environmental issues. The purpose of the PEA is to identify if any of the potential issues will need to be mitigated either prior to or during the modernization and renovation effort. The primary objectives of the PEA are as follows:

- 1) Establishing through a field sampling and analysis program the possible presence of potential contaminants in near surface soil and soil gases related to RECs identified in the Phase I ESA and in consideration of historical use of the Site.
- 2) Data derived from the proposed investigation will be evaluated with regard to the following considerations:
 - Evaluate the potential presence of constituents of potential concern in near-surface soil to determine whether special consideration with regard to future soil handling and disposal during the modernization and construction activities is warranted;
 - Determine if the concentrations of constituents of potential concern in near-surface soil exceed health-based screening criteria (residential land-use scenario) for protection of students, faculty, staff, and visitors at the Site;
 - Evaluate the potential existence of methane in the subsurface to determine whether special consideration must be taken with regard to future construction requirements; and
 - If necessary, determine whether further investigation, monitoring, and/or remedial actions are necessary to further define, monitor, or remove contaminants as part of the identified RECs.

Based on the findings of the PEA investigation, the LAUSD will then make an informed decision regarding potential risks posed by the Site. Possible outcomes of the PEA decision include the following:

- Issuance of a “No Further Action” finding if the Site is found not to be significantly impacted, and risks to human health and the environment are found to be within acceptable levels based on the conservative screening level risk assessment;
- Issuance of a “Need for Housekeeping Action” finding if contamination is found and/or soil removal is/will be completed to reduce exposure to contamination discovered during the PEA process;
- Performance of a Supplemental Site Investigation (SSI) if the PEA fails to determine the limits of contamination; or
- Preparation and implementation of a Removal Action Workplan (RAW) if significant impact by hazardous substances release(s) is identified during the field investigation.

1.2 SCOPE OF WORK

The scope of work implemented to prepare this PEA included:

- Scoping discussions with LAUSD representatives;
- Preparing and implementing public notifications;
- Researching available Site background information regarding former and current land use from the previously conducted Phase I ESA;
- Implementing field and laboratory data collection and evaluation to assess environmental conditions at the Site;
- Performing a screening-level human health risk evaluation that assumes a conservative residential land use scenario; and
- Preparing this PEA Equivalent Report.

Numerous information sources were reviewed as part of the background research for development of the PEA Report. However, the Phase I ESA prepared by Converse presents the primary source of information utilized in the PEA Report development. These sources were reviewed to develop an understanding of current and past land uses and practices that may have involved the handling, use, storage, and/or disposal of hazardous substances or wastes.

TRC utilized the information presented in the Phase I ESA as a background search for the Site. The Phase I ESA states that it was completed in accordance with the American Society for Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM Standard E 1527-13). Specific sources of information reviewed and activities performed in conducting the background research include, but are not limited to, the following:

- Site zoning and land-use maps;
- U.S. Geological Survey (USGS) 7½-minute topographic maps;
- Geologic and hydrogeologic maps;
- Sanborn fire insurance maps;
- Building department records;
- Available aerial photographs;
- Environmental database list searches;

- Agency files at Federal, State, and local regulatory agencies and offices for the Site;
- Agency files for listed facilities within ¼ mile of the Site that were identified as having a potential to have impacted the Site;
- Site owner/operator records (if available);
- Site inspections and observations of the Site and surrounding area within ¼ mile;
- Interviews with persons knowledgeable of Site history and operations (if such persons are available);
- Reports of prior investigations and remedial activities performed at the Site; and
- Available applicable information from LAUSD files.

Based on the findings of the Phase 1 ESA, Converse provided the following recommendations as related to the RECs:

- Based on the age of the Site buildings, collect shallow soil samples around the drip lines of the existing and former buildings and analyze them for the potential presence of lead-based paint (LBP) residue, and from around the foundations of the existing and former buildings and analyze them for organochlorine pesticides (OCPs).
- Based on the potential presence of arsenic and polychlorinated biphenyls (PCBs) in shallow soils, collect shallow soil samples across the Site and analyze them for arsenic and PCBs.
- Based on the presence and historical use of the hydraulic hoists and 3-stage clarifier associated with the former auto shop operations (Industrial Arts Building) at the mid-eastern portion of the Site, collect soil samples in these locations to determine whether the subsurface has been impacted from these features.
- Considering that the site is located within the Boyle Heights Oil Field and is within a designated methane zone within the City of Los Angeles, conduct a methane survey in accordance with Los Angeles Department of Building and Safety (LADBS) Site Testing Standards.

Based on the recommendations outlined above, a sampling and analysis program was prepared and implemented to evaluate the potential presence of chemical constituents in shallow soils and soil gas beneath the Site. The Site was divided into six separate investigation areas (Areas 2, 3, 5, 6, 8, and 9; see Figure 2) based on the planned renovation phases. The field and laboratory program included:

- Collection of shallow soil samples at 283 locations across the Site to a depth of 2.5 feet below ground surface (bgs), including 47 locations in Area 2 (physical education building and courts), 48 locations in Area 3 (athletic field and bleachers), 47 locations in Area 5 (auditorium and lunch pavilion), 80 locations in Area 6 (east-central portion of campus), 38 locations in Area 8 (south-central portion of campus), and 23 locations in Area 9 (southeast portion of campus). Soil samples were analyzed for arsenic and lead, and select composite soil samples were further analyzed for OCPs and PCBs.
- Collection of shallow soil samples from an additional 190 borings across the Site to further delineate impacts identified in the initial 283 sampling locations, with sample collection to depths up to 4.5 feet bgs. Soil samples were analyzed for arsenic and lead.
- Collection of soil samples at eight locations near the hydraulic hoists and two locations near the clarifier to evaluate subsurface conditions. Soil borings were advanced to a depth of 10 feet bgs, and soil samples were analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, and metals.
- Collection of soil samples at two locations to evaluate undocumented fill materials beneath the Site. Soil borings were advanced to depths of 10 feet and 14 feet bgs, and soil samples were analyzed for TPH, VOCs, SVOCs, PCBs, OCPs, and metals.

- Installation and sampling of nested, multi-depth soil gas probes at 20 locations to evaluate subsurface methane and hydrogen sulfide concentrations. Each location was constructed with sample intakes at depths of 7, 12, and 22 feet bgs (unless drilling refusal occurred), and soil gas concentrations were evaluated using field instrumentation and by collecting samples for laboratory analysis. Soil gas samples were analyzed for methane, hydrogen sulfide, oxygen, carbon dioxide, and VOCs.
- Evaluation of the analytical results, including comparison to accepted background levels and human health-based risk screening levels such as the Environmental Protection Agency (EPA) Region IX Regional Screening Levels (RSLs) and Cal EPA DTSC-modified Screening Levels (i.e., Human and Ecological Risk Office [HERO] Human Health Risk Assessment Note Number 3 values; DTSC, 2015), as appropriate.
- Preparation of this PEA Equivalent Report.

1.3 PEA REPORT FORMAT

This PEA Equivalent Report is organized in general accordance with the format presented in Chapter 3 of the DTSC's *PEA Guidance Manual*. This PEA Report contains the following sections:

- Section 1.0 – Introduction includes PEA objectives, scope of work, and PEA report format.
- Section 2.0 - Site Description includes a description of the Site, LAUSD contact information, and site-specific classification information.
- Section 3.0 - Background includes current/historical Site uses, surrounding land uses, and a summary of prior Site investigations.
- Section 4.0 - Apparent Problem includes a summary of the RECs and potential contaminants of concern.
- Section 5.0 – Environmental Setting summarizes environmental factors related to soil, water, and air pathways.
- Section 6.0 – Soil and Soil Gas Sampling Program summarizes all field and laboratory investigations and results.
- Section 7.0 - Human Health and Ecological Screening Evaluations summarizes potential risks to human health and the environment.
- Section 8.0 - Delineation of Areas of Impacted Soil summarizes areas impacted by arsenic, lead, and petroleum hydrocarbons above applicable screening levels and provides proposed volumes of impacted soil.
- Section 9.0 - Quality Assurance/Quality Control (QA/QC) includes an overview of QA/QC measures conducted during the PEA investigation.
- Section 10.0 - Field Variances includes a summary of deviations from the original PEA work scope.
- Section 11.0 - Conclusions and Recommendations of the PEA.
- Section 12.0 - References cited in the document.

2.0 SITE DESCRIPTION

2.1 SITE NAME AND ADDRESS

Roosevelt High School is located at 456 South Mathews Street in Los Angeles, California (see Figure 1). The property is bounded by South Mathews Street on the northwest, East 4th Street on the northeast, South Mott Street on the southeast, and East 6th Street on the southwest. The school property is a rectangular-shaped parcel containing approximately 23.70 acres of land.

2.2 DESIGNATED CONTACT

The designated contact person for this project is Mr. Dane Robinson, Site Assessment Project Manager, LAUSD (contract professional).

Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
(213) 241-4122
dane.robinson@lausd.net

2.3 MAILING ADDRESS

Theodore Roosevelt Senior High School
456 South Mathews Street
Los Angeles, CA 90033

2.4 TELEPHONE NUMBER

Phone: (323) 780-6500
FAX: (323) 269-5473

2.5 OTHER SITE NAMES

Theodore Roosevelt Senior High School
Roosevelt High School

2.6 REGULATORY IDENTIFICATION NUMBERS

The Site is not listed in the DTSC Envirostor database or the State Water Resources Control Board (SWRCB) Geotracker database.

2.7 ASSESSOR'S PARCEL NUMBER

The property has the following Assessor's Parcel Number (APN), as designated by the Los Angeles County Office of the Assessor:

- APN# 5185-004-929

2.8 GEOGRAPHIC COORDINATES

The geographic coordinates for the center of Roosevelt High School are 34.0379 North latitude and 118.2104 West longitude.

2.9 SITE LAND USE AND ZONING

According to the City of Los Angeles Zoning Information and Map Access System (ZIMAS; website ZIMAS.lacity.org), the Site is zoned as follows:

- ZI-2129 – East Los Angeles State Enterprise Zone
- ZI-2452 – Transit Priority Area

2.10 SITE MAPS

The location of Roosevelt High School and surrounding area is presented in Figure 1, and the current layout of the school buildings and outdoor areas is presented on Figure 2. The initial proposed soil and soil gas sampling locations proposed as part of this PEA are presented in Figure 2 and Appendix A. The actual locations completed as part of the investigation are presented on the more detailed Figures 3 through 9, which provide additional detail for Areas 2, 3, 5, 6, 8, 9, and the Industrial Arts Building, respectively.

3.0 BACKGROUND

3.1 CURRENT SITE USE

The Site is currently owned by the LAUSD and operated as Roosevelt High School. The Site is a rectangular-shaped property consisting of approximately 23.70 acres. The current campus facilities consist of 16 structures, including an administration/classroom building, a lunch pavilion, a cafeteria, a library/classroom, a music building, a gymnasium, an auditorium/classroom building, an industrial arts building, a former auto shop building, and seven classroom buildings. The property also includes multiple portable classroom buildings. Athletic fields and facilities are located along the northeast portion of the property, as well as in the southeast corner of the property.

3.2 HISTORICAL SITE USE

Aerial Photographs, Sanborn maps, and other historical documentation indicate that the Site was historically developed with multiple residential dwellings and historical streets (South Fickett Street, Eagle Street, and Lanfranco Street) from as early as 1894. Roosevelt High School was constructed in the central portion of the Site in 1922. Subsequent expansions of the school occurred from the 1940s to the 1970s to include the present-day footprint (Converse, 2016).

3.3 SURROUNDING LAND USES

Properties immediately surrounding the Site to the north across East 4th Street, west across South Mathews Street, and east across South Mott Street consist primarily of residential neighborhoods. The property south of the Site across East 6th Street is developed with the Hollenbeck Middle School. The overall area

surrounding the school consists primarily of residential development with some commercial development (Converse, 2016).

3.4 PRIOR SITE INVESTIGATION

The Phase I ESA identified that a geotechnical investigation to support proposed campus modifications was conducted in 2015 (Converse, 2016). The investigation consisted of five exploratory geotechnical borings to depths between 30 and 50.5 feet bgs, and determined that undocumented fill soils are present to depths ranging from 5 to 14 feet bgs in the borings. No environmental sampling was conducted as part of this investigation.

No other prior investigations were identified by the Phase I ESA (Converse, 2016).

4.0 APPARENT PROBLEM

Based on the findings of the Phase 1 ESA, the PEA field investigation is intended to evaluate the following:

- Based on the age of the Site buildings, there is the potential for LBP residue and OCPs in soil surrounding Site structures;
- Based on previous Site use, there is the potential presence of arsenic and PCBs in shallow soils;
- Based on the presence and historical use of the hydraulic hoists and 3-stage clarifier associated with the former auto shop operations (Industrial Arts Building), there is the potential for leakage from these features; and
- Considering that the site is located within the Boyle Heights Oil Field and is within a designated methane zone in the City of Los Angeles, there is the potential for methane in the subsurface

Therefore, contaminants of potential concern associated with the Site include arsenic, lead, OCPs, PCBs, petroleum hydrocarbons, VOCs, SVOCs, and metals in soil, and methane in subsurface soil gas.

5.0 ENVIRONMENTAL SETTING

5.1 FACTORS RELATED TO SOIL PATHWAYS

5.1.1 Site Topography

The site is located on the eastern portion of the Montebello Plain at an elevation of approximately 313 feet above mean sea level (msl). The topography in the area of the site slopes to the south and southeast. The Elysian Hills are located approximately 2.5 miles north-northwest of the site (California Department of Water Resources [CDWR], 1961, and USGS, 1966).

5.1.2 Proximity to Surface Water Bodies

There are two surface water bodies within a 1-mile radius of the Site. The nearest surface water body is the man-made lake at Hollenbeck Park, located approximately 1,850 feet northwest of the Site. The Los Angeles River, a concrete-lined river channel, is located approximately 4,450 feet to the west (USGS, 1966).

5.1.3 Evidence of Releases to the Environment

During the Phase I ESA site inspection, there was no observed evidence of environmental impacts from a release at the Site (e.g., stained soil, stressed vegetation, etc.).

5.1.4 Site Geology and Soil Types

The Site is located within the Los Angeles Coastal Plain. The Los Angeles Coastal Plain is an alluviated lowland surrounded by the mountains and hills of the Transverse and Peninsular Ranges. Recent alluvium composed of gravel, sand, silt, and clay is present beneath the area of the Site to a depth of approximately 60 feet bgs, and the Lakewood Formation underlies the alluvium. The Lakewood Formation is composed of marine and continental gravel, sand, sandy silt, silt, and clay with shale pebbles (CDWR, 1961).

5.1.5 Oil and Gas Review

A review of the Division of Oil, Gas and Geothermal Resources (DOGGR) online well-finder database (<http://www.conservation.ca.gov/dog/Pages/Wellfinder.aspx>) indicates that the Site is located within the Boyle Heights Oil Field (abandoned). No active or abandoned oil wells are located at the Site. There are a total of five abandoned oil wells located within a 0.5-mile radius of the Site. Refer to Appendix B for additional details regarding the Boyle Heights Oil Field and the five abandoned oil wells located near the site.

In addition, per Figure IV.F-2, LADBS Methane and Methane Buffer Zone Map, the Site is located within the City of Los Angeles Methane Zone.

5.1.6 Proximity to Nearby Receptors

TRC assessed other potential receptors within a 1-mile radius of the Site including hospitals, schools, child day care centers, and senior day care centers. In consideration of the available information in the public domain for the Site (Google Earth, 2017), below are the summarized results.

- There are three hospitals and/or medical facilities located within 1 mile of the Site. The closest facility is the Los Angeles Christian Health Center (1625 East 4th Street), which is located approximately 4,000 feet northwest of the Site.
- There are 10 schools located within 1 mile of the Site. The closest school is Hollenbeck Middle School (2510 East 6th Street), which is due south/southwest of the Site across East 6th Street.
- There are three daycare facilities within 1 mile of the Site. The closest facility is the Salesian Family Youth Center (2228 East 4th Street), which is located 1,470 feet northwest of the site.
- There are three senior care facilities within 1 mile of the Site. The closest facility is the Boyle Heights Senior Center (2839 East 3rd Street), which is located 1,560 feet east of the Site.

5.2 FACTORS RELATED TO WATER PATHWAYS

5.2.1 Groundwater

5.2.1.1 *Site Hydrogeologic Setting*

The site is located within the Los Angeles Forebay area of the Central Groundwater Basin of the Los Angeles-San Gabriel Hydrologic Unit. The Central Groundwater Basin is one of four basins designated in the Los Angeles Coastal Plain (Santa Monica Basin, the West Coast Basin, the Hollywood Basin, and the Central Basin). The Central Basin is bounded on the north by the Hollywood Basin and a series of low hills extending from the Elysian Hills on the northwest to the Puente Hills on the southeast, on the west and south by the Newport-Inglewood fault zone, and on the southeast by the Los Angeles-Orange County line (CDWR, 1961).

The first groundwater production zones in the area of the site are the Gasper and Exposition Aquifers (CDWR, 1961). Groundwater in the area of the site has been designated as having beneficial use for municipal, industrial process, and agricultural applications (CRWQCB, 1994).

5.2.1.2 *Impacted Aquifers from Site Releases*

No evidence has been found to suggest a release or threatened release from the Site to groundwater. Therefore, aquifers are not known or suspected to have been impacted from Site releases.

5.2.1.3 *Nearby Groundwater Wells*

According to the Los Angeles County Department of Public Works Hydrologic Records Division website (<http://dpw.lacounty.gov/general/wells>), there are no active wells located within a 1-mile radius of the Site (LADPW). The nearest well is located over 1 mile to the southwest of the Site (State Well ID 2S13W10A01), near the intersection of East 12th Street and South Soto Street. The depth to water measured in this well in May 2017 was 244.60 feet bgs. Only limited information was available for this well.

The nearest groundwater monitoring wells to the Site as found on the SWRCB Geotracker website are approximately 450 feet northwest of the Site. The wells were installed as part of an open Leaking Underground Storage Tank case (Los Angeles Regional Water Quality Control Board [LARWQCB] Case #900330416) at the Winall Oil Co. service station located at 401 S. Soto Street, which is located at the southwest corner of Soto Street and 4th Street. The depth to groundwater was most recently measured in the seven wells on that property in November 2016, and the depths ranged from approximately 42 to 54 feet bgs. In addition, liquid-phase hydrocarbons were measured in 6 of the 7 wells at a maximum thickness of 0.12 foot. The groundwater flow direction beneath the Winall site is reportedly toward the north (Economy Environmental, Inc., 2017).

According to the Phase I ESA report, the Environmental Data Resources (EDR) Radius Report, there are no public water supply wells within a 1-mile radius of the Site (Converse, 2016).

5.2.2 Surface Water

No surface water bodies exist on the Site or surrounding area. Therefore, surface water sampling was not performed as a component of this investigation. With the exception of planter areas and the grass-covered

athletic fields, the surface of the Site is covered with asphalt, concrete or buildings. Storm water from the Site is directed by curb and gutter systems toward the City-maintained storm sewer system.

5.3 FACTORS RELATED TO AIR PATHWAYS

Based on the current Site development (e.g., asphalt and concrete paving and school buildings and structures), potential emissions from soil are considered to be insignificant under current conditions. There is no documentation of a release of hazardous substances to the atmosphere. Future Site development activities would result in the removal of asphalt and concrete paving and certain buildings and structures that could increase the potential for fugitive dust generation. Potential sources of a hazardous substances release to the atmosphere are limited to fugitive dust from surface soils. Therefore, the potential for releases of hazardous substances from the Site to the atmosphere is considered to be *de minimis*. Sensitive receptors in the vicinity of the Site (within 1 mile) are discussed above in Section 5.1.6.

6.0 SOIL AND SOIL GAS SAMPLING PROGRAM

TRC completed a PEA field investigation consisting of an extensive soil and soil gas sampling program to investigate the RECs identified in the Phase I ESA and to prepare the Site for the modernization and construction activities. The following sections describe the sampling strategy, investigation methods and procedures, sample handling and storage, decontamination procedures, and management of waste materials for the PEA investigation. Soil samples were collected within the project area in accordance with DTSC's PEA Guidance Manual and DTSC's *Interim Guidance for Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers* (DTSC, 2006). Soil gas probe installation and sampling was conducted in general accordance with the guidelines provided by the *DTSC Advisory – Active Soil Gas Investigations* (DTSC, 2015). This investigation was conducted under the direct supervision of the California-licensed Professional Geologist whose certification and signature appear on the title page of this report.

Site access and notification of school administrative personnel were coordinated with the LAUSD Project Manager, the LAUSD Facilities Plant Manager, and the school Plant Manager. Field sampling activities were supported by Subsurface Surveys and Associates, Inc. (geophysical survey and utility clearance) and Environmental Support Technologies, Inc. (drilling and soil gas probe installation, sample collection, and analysis).

6.1 SUMMARY OF ACTIVITIES

The PEA sampling program consisted of shallow soil sampling in the areas of existing buildings, common areas, athletic fields, and parking lots planned for removal/replacement and construction, and soil gas sampling was conducted across the entire Site to evaluate for the potential presence of subsurface methane. It should be noted that some boring locations were moved from their originally proposed locations, co-located with samples collected for other purposes, or removed from the soil sampling program due to logistical challenges (e.g., utility conflicts, presence of overlying structures, or limited work areas). A general summary of the PEA sampling program is presented below.

Initial PEA investigation activities were conducted on October 3, and the weekends of October 8-9, 15-16, 22-23, and 29-30, 2016, and field sampling activities included the following:

- collection of shallow soil samples at a total of 283 locations across the Site, including 47 locations in Area 2 (physical education building and courts), 48 locations in Area 3 (athletic field and bleachers), 47 locations in Area 5 (auditorium and lunch pavilion), 80 locations in Area 6 (east-central portion of campus), 38 locations in Area 8 (south-central portion of campus), and 23 locations in Area 9 (southeast portion of campus);
- collection of soil samples at two (2) locations to evaluate undocumented fill beneath the Site;
- collection of soil samples at eight (8) locations near the hydraulic hoists and two (2) locations near the clarifier to evaluate subsurface conditions; and
- installation of nested, multi-depth soil gas probes at 20 locations to evaluate subsurface methane and hydrogen sulfide concentrations.

Based on results of the initial investigation activities, additional investigation was conducted on November 21-23 and December 21, 2016, and March 25-26 and June 14, 2017. These field sampling activities consisted of the following:

- collection of shallow soil samples from an additional 190 borings to further assess the vertical extent (42 borings in previously sampled locations) and lateral extent (148 borings in new locations) of soil impacts identified in the initial 283 locations sampled in October 2016; and
- collection of additional soil gas samples from the nested, multi-depth soil gas probes installed in October 2016.

The soil and soil gas sampling programs are summarized in Tables 1 through 3, and the boring and sampling locations are presented on Figures 2 through 9.

6.2 PRE-FIELD ACTIVITIES

6.2.1 Work Notice

Prior to the initiation of field investigation activities, a PEA Work Notice was prepared in English and Spanish to advise the public of the upcoming PEA field investigation, the schedule of environmental field work, and contact information for questions and comments. The Work Notice was distributed as follows on September 21, 2016: 1) approximately 2,600 copies were mailed to parents of Roosevelt High School students and key contacts; 2) 200 copies were provided to LAUSD for placement in the Roosevelt High School main office; 3) approximately 250 copies of the Work Notice were hand delivered to residents and businesses in the immediate vicinity of the Site; and 4) laminated copies of the Work Notice were posted on fencing along the school perimeter. A copy of the PEA Work Notice is included in Appendix C.

6.2.2 Site Clearance and Geophysical Survey

Clearance of utilities and other underground obstacles was conducted prior to initiating any subsurface investigation activities. Underground Service Alert (USA) was notified a minimum of two business days prior to commencing intrusive work at the Site, and the proposed boring locations were marked in the field with chalk or chalk-based paint according to USA requirements. The USA tickets were maintained for the duration of the field investigation.

In addition, geophysical surveys were conducted on October 3, 2016, and March 25-26 and June 14, 2017, to clear proposed sampling locations within the project area. The geophysical survey utilized electro-magnetic and ground penetrating radar to locate the underground utility lines and subsurface features and structures prior to the initiation of intrusive investigation activities. Copies of the three Geophysical Investigation Reports are included in Appendix D.

6.2.3 Health and Safety

A comprehensive health and safety plan (HASP) was prepared for the PEA field investigation activities conducted at the Site. The intent of the HASP was to include protocols to be followed during investigation activities and to ensure the health and safety of on-Site project employees, subcontractors, visitors, and the public during all Site work. The HASP identified policy, procedures, and systems to be followed by project personnel, and was required to be followed and signed by TRC employees, subcontractors, vendors, visitors, and agency representatives at the Site.

The HASP was implemented in conjunction with other TRC health and safety programs, including the TRC Injury and Illness Prevention Program (IIPP). In addition, project procedures guided the job safety analysis (JSA) documents created for critical work, safety task assignments used daily to direct that day's activity, as well as additional postings, signs, or informational memos regarding safety.

A copy of the HASP was readily available during field activities. On the morning of each day of field activities, a health and safety meeting was conducted with all Site workers to discuss the health and safety issues and concerns related to the specific work, including safety concerns regarding coordination of investigation activities. All Site workers were required to review and sign the TRC HASP before conducting work at the Site. In addition, Site workers met the training requirements specified in the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 CFR 1910.120[e]).

6.4 SOIL SAMPLE COLLECTION AND ANALYSIS

6.4.1 Sample Locations and Rationale

The PEA soil sampling program and protocol varied by boring type and considered the analyte(s) of interest at each respective boring location and Site area. Depending on the analytical results of the shallowest soil sample relative to either accepted background concentrations or selected human health-based screening levels, deeper soil samples were subsequently collected and analyzed to define the vertical extent of impact, and step-out borings were sampled to further define the lateral extent of apparent impact. For the purpose of this evaluation, human health-based screening levels were established based on a combination of the EPA Region IX RSLs and Cal EPA DTSC-modified Screening Levels (DTSC-SLs; DTSC, 2015). The decision criteria for determining whether analysis of deeper soil samples from a specific boring or collection of step-out samples lateral to an initial boring location was warranted is outlined below:

- Arsenic soil samples were screened utilizing the accepted background concentration of 12 milligrams per kilogram (mg/kg);
- Lead soil samples were screened utilizing the DTSC Residential Screening Level of 80 mg/kg;
- Petroleum hydrocarbons were screened using 100 mg/kg for gasoline-range hydrocarbons (TPH-G), 1,000 mg/kg for diesel-range hydrocarbons (TPH-D), and 1,000 mg/kg for oil-range hydrocarbons (TPH-O);

- VOCs were screened utilizing a combination of RSLs and human health-based screening criteria based on the individual chemical or compound;
- PCBs were screened utilizing the RSLs for Residential Land Use (value varies by PCB constituent); and
- OCPs were screened utilizing the RSLs for Residential Land Use (value varies by OCP constituent).

6.4.1.1 Shallow Soil Borings to Assess Arsenic, Lead, OCPs, and PCBs (473 Borings)

The initial work scope included sample collection at 283 boring locations. Most of these locations were located in asphalt- or concrete-covered locations and required coring prior to sampling. Once the locations were cleared and cored, soil samples were collected using a hand auger. All locations were sampled to a depth of 2.5 feet bgs, with sample collection at 0.5 and 2.5 feet bgs. Based on results of laboratory analysis of these initial samples, additional sampling was conducted at locations where applicable screening levels were exceeded. This additional work scope included collection of deeper samples at impacted locations to evaluate the vertical extent of soil impact (42 existing locations), and collection of samples at additional step-out locations to assess the lateral extent of soil impact (148 additional locations). The initial lateral step-out borings were designated with an “a”, “b”, “c”, and/or “d” based on their location north, east, south, and west of the original sampling location, respectively (e.g., Boring H-2 in Area 2 required additional lateral assessment, so Borings H-2a, H-2b, H-2c, and H-2d were sampled north, east, south, and west of the initial location, respectively). Subsequent lateral assessment borings were designated with a “1” to demonstrate an additional step-out location to an initial step-out location (e.g., the step-out for Boring H-2b was designated H-2b1). Samples for arsenic and lead analysis were collected as discrete samples at each location, and samples for OCP and PCB analysis were composited at the laboratory from two to four discrete samples collected from select locations. See Figures 2 through 8 for the soil sampling locations, and Table 1 for a summary of the samples collected.

6.4.1.2 Borings at Hydraulic Hoists and Clarifier (10 Locations)

On October 22, 2016, a total of 10 soil borings was sampled to evaluate subsurface conditions in the area of the four hydraulic hoists and the wastewater clarifier located at the Industrial Arts Building in Area 6. The borings were sampled using direct-push sampling techniques. The eight soil borings advanced at the hydraulic hoist locations (HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, and HL4-2) were sampled to a depth of 10 feet bgs, with sample collection at depths of 0.5, 2, 5, and 10 feet bgs. The two soil borings advanced at the clarifier location (CL1 and CL2) were sampled to a depth of 10 feet bgs, with sample collection at depths of 2, 5, and 10 feet bgs. Soil samples collected from borings at the hydraulic hoists were analyzed for petroleum hydrocarbons, PCBs, and metals, and soil samples collected from borings at the clarifier were analyzed for petroleum hydrocarbons, VOCs, SVOCs, and metals. Soil samples intended for TPH-G and VOC analysis were collected in accordance with EPA Method 5035. See Figure 9 for the soil sampling locations, and Table 2 for a summary of the samples collected.

6.4.1.3 Borings to Evaluate Undocumented Fill Materials (2 Locations)

On October 22, 2016, two soil borings (FILL-1 and FILL-2) were advanced to evaluate undocumented fill materials in the north-central portion of the Site in Area 2 and in the south-central portion of the Site in Area 8. The borings were sampled using direct-push sampling techniques. Boring FILL-1 was sampled to a depth of 10 feet bgs, with soil sample collection at depths of 2, 5, and 10 feet bgs, and Boring FILL-2 was sampled to a depth of 14 feet bgs, with soil sample collection at depths of 2, 5, 10, and 14 feet bgs. Soil

samples were analyzed for petroleum hydrocarbons, VOCs, SVOCs, OCPs, PCBs, and metals. Soil samples intended for TPH-G and VOC analysis were collected in accordance with EPA Method 5035.

6.4.2 Boring Advancement and Sample Collection Procedures

Sample collection from the shallow soil borings across the Site was conducted using a hand auger. The hand auger samples were collected by manually advancing a 1.5-inch diameter auger core barrel to predetermined sample depths, and then the soil samples were transferred from the core barrel to 4-ounce glass jars.

The borings at the hydraulic hoists, clarifier, and to document fill material were advanced using a direct-push drill rig to the target sampling depths between 10 and 14 feet bgs. Direct-push drilling rigs utilize both weight and percussion to drive a 4-foot long core barrel sampler attached to the drill rod. The core-barrel was lined with a 2-inch diameter acetate sleeve and the probe tip was opened to allow soil to enter the core barrel as it was driven into the soil. The liner containing the soil core was then removed for soil logging and sample collection. The sampler was then rinsed, re-lined with a new acetate sleeve, and prepared for the next boring.

Soil borings at the hydraulic hoists, clarifier, and to document fill material were logged in accordance with the Unified Soil Classification System (USCS). After logging the soil, a 0.5-foot long sample was cut from the acetate core at the desired sampling interval and collected for analysis. Additional soil from the core was screened with a photoionization detector (PID) and recorded on the boring log. The sample collected for analysis was capped with Teflon® sheeting and plastic end caps, and then placed into a cooler chilled to 4 degrees Celsius for transport to the laboratory.

Waste materials generated during the investigation were placed in labeled, Department of Transportation (DOT)-approved, 55-gallon steel drums for temporary storage prior to disposal.

All soil samples were submitted under proper chain of custody protocols to Advanced Technology Laboratories (ATL), a California State-certified analytical laboratory, for analysis.

6.4.2.1 *Soil Description*

During this investigation, boring logs were completed only for soil borings that extended to 10 feet bgs or deeper (includes eight borings at the hydraulic hoists, two borings at the clarifier, and two borings to evaluate fill materials). Each log recorded the following sampling information: boring number and location; sample identification numbers; date and time; sample depth; soil description in accordance with the USCS; description of any visible evidence of soil contamination (i.e., odor or staining), and PID readings. Copies of the boring logs are provided in Appendix E.

A PID was used for both field screening and health and safety monitoring during soil sampling activities. PID data were used as an immediate indicator of volatile organic vapors in subsurface materials. The PID was calibrated to display concentration in units equivalent to parts per million (ppm). A span gas containing isobutylene at 100 ppm in air was used to set the sensitivity. The instrument was calibrated daily following manufacturer specifications.

6.4.2.2 Decontamination

All equipment that came into contact with potentially contaminated soil was decontaminated to ensure the quality of samples collected. Disposable equipment intended for one-time use was not decontaminated, but packaged for appropriate disposal. Decontamination occurred prior to and after each use of a piece of equipment. All drilling and sampling devices used were decontaminated in a pre-designated area using the following procedures:

- Non-phosphate detergent and tap water wash, using a brush if necessary;
- Tap-water rinse;
- Initial deionized/distilled water rinse; and
- Final deionized/distilled water rinse.

Decontamination fluids generated during the investigation were placed in labeled, Department of Transportation (DOT)-approved, 55-gallon steel drums for temporary storage prior to disposal.

6.4.2.3 Field Equipment Blank Samples and Trip Blank Samples

Thirty-two (32) field equipment blank water samples were collected during investigation activities. The field equipment blank samples were collected by pouring laboratory-provided de-ionized water over decontaminated drilling equipment, such as the core sampler. The water was collected in laboratory-provided water sampling containers. The containers were handled in the same fashion as other samples (i.e., placed in a cooler with ice and identified on the COC) and delivered to the laboratory for analysis with other samples collected the same day.

In addition, two laboratory-supplied trip blank samples were obtained from the laboratory and used to accompany all samples intended for VOC analysis.

6.4.3 Sample Handling Procedures

Soil sample containers for the shallow hand auger borings consisted of 4-ounce laboratory supplied glass jars, soil sample containers for the direct-push borings consisted of acetate liners, and equipment blank sample containers consisted of laboratory-provided water sample containers. To identify and manage samples obtained in the field, a sample label was affixed to each sample container. The sample labels included the following information:

- Project number;
- Site name;
- Boring number;
- Sample identification number;
- Sampler's initials; and
- Date and time of collection.

Following collection and labeling, samples were immediately placed in a sample cooler for temporary storage. The following protocol was followed for sample packaging:

- Sample containers were placed in clear, plastic, leak-resistant bags prior to placement in the ice chest;
- Ice was placed in leak-resistant plastic bags and included in the coolers to keep samples at a chilled temperature during transport to the analytical laboratory; and
- The COC form was placed in a water-resistant plastic bag and taped on the inside of the lid of the cooler.

Self-adhesive custody seals were not used as the samples were transferred directly from field personnel to laboratory personnel.

Field notes and COC forms were used to record the following information during the collection of each sample:

- Sample identification number;
- Sample location and description;
- Site sketch showing sample location and measured distances;
- Sampler's name(s);
- Date and time of sample collection;
- Designation of sample as composite or grab;
- Type of sample (e.g., matrix);
- Type of preservation;
- Type of sampling equipment used;
- Field observations and details important to analysis or integrity of samples (e.g., heavy rains, odors, colors, etc.);
- Instrument readings (i.e., PID);
- COC form numbers and COC seal numbers;
- Transport arrangements (e.g., courier delivery, lab pickup, etc.); and
- Recipient laboratory(ies).

6.4.4 Soil Matrix Analytical Procedures

All samples collected during the investigation were submitted to Advanced Technology Laboratories, Inc. (ATL), a California State-certified analytical laboratory, for analysis. Samples were transported to the laboratory upon completion of each field day.

The following samples (including field QC samples) were collected and analyzed as part of the PEA field investigation:

- 799 soil samples for arsenic using EPA Method 6010B (716 discrete samples and 83 duplicates);
- 936 soil samples for lead using EPA Method 6010B (841 discrete samples and 95 duplicates);
- 92 soil samples for OCPs using EPA Method 8081A (83 composite samples and 9 duplicates);
- 14 soil samples for PCBs using EPA Method 8082 (12 composite samples and 2 duplicates);
- 90 soil samples for Soluble Threshold Limit Concentration (STLC) lead using EPA Method 6010B (84 discrete samples and 6 duplicates);
- 1 soil sample for STLC arsenic using EPA Method 6010B;

- 57 soil samples for Toxicity Characteristic Leaching Procedure (TCLP) lead using EPA Method 6010B (52 discrete samples and 5 duplicates);
- 2 discrete soil samples for TPH-G using EPA Method 8015M/5035;
- 46 soil samples for TPH-D and TPH-O using EPA Method 8015M (40 discrete samples, 2 composite samples, and 4 duplicates);
- 11 soil samples for VOCs using EPA Method 8260B/5035 (10 discrete samples and 1 duplicate);
- 11 soil samples for SVOCs using EPA Method 8270C (8 discrete samples, 2 composite samples, and 1 duplicate);
- 46 soil samples for Metals using EPA Methods 6010B/7471A (40 discrete samples, 2 composite samples, and 4 duplicates);
- Field equipment blanks collected during the shallow soil boring investigation across the site were analyzed for arsenic and lead using EPA Method 6010B, OCPs using EPA Method 8081A, and PCBs using EPA Method 8082;
- Field equipment blanks collected during the remaining investigation work (e.g., hydraulic hoists, clarifier, and fill material evaluation) were analyzed for petroleum hydrocarbons using EPA Method 8015M, VOCs using EPA Method 8260B, SVOCs using EPA Method 8270C, PCBs using EPA Method 8082, and Metals using EPA Methods 6010B/7471A; and
- Trip blank samples were analyzed for VOCs using EPA Method 8260B.

Results of laboratory analysis of soil samples collected during the PEA investigation are summarized in Tables 1 and 2. Chain of custody protocol was followed for all samples selected for laboratory analysis. The chain of custody form accompanied the samples from the sampling locality to the laboratory, providing a continuous record of possession prior to analysis. Copies of the official laboratory reports and chain of custody records are included in Appendix F.

Analyte detections noted in the tables with a J (J-flagged) indicate that the analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit (reported value is estimated).

6.4.5 Summary of Analytical Results

Results of laboratory analysis of soil samples collected during the PEA investigation are summarized below (see Tables 1 and 2).

6.4.5.1 *Arsenic*

Arsenic was detected at concentrations exceeding the soil screening level of 12 mg/kg in 48 boring locations across the Site. This includes 11 boring locations in Area 3 (maximum 41 mg/kg in Boring B-13 at 0.5 foot bgs), 25 boring locations in Area 6 (maximum 66 mg/kg in Boring IM-3c at 0.5 foot bgs), and 12 boring locations in Area 9 (maximum 16 mg/kg in Boring Y-17 at 0.5 foot bgs). See Figures 4A, 6A, and 8A for the distribution of arsenic impacts in Areas 3, 6, and 9, respectively.

Based on results of the investigation, one soil sample with the highest arsenic concentration was analyzed for arsenic STLC (66 mg/kg in Boring IM-3c at 0.5 foot bgs). The arsenic STLC concentration for this sample was 4.1 milligrams per kilogram (mg/L). This result indicates that arsenic-impacted soil identified during this investigation would be considered as non-hazardous upon removal.

6.4.5.2 Lead

Lead was detected at concentrations exceeding the soil screening level of 80 mg/kg in 66 boring locations across the Site. This includes 10 boring locations in Area 2 (maximum 280 mg/kg in Boring B-6b at 2.5 feet bgs), 9 boring locations in Area 3 (maximum 180 mg/kg in Boring B-15b at 0.5 foot bgs), 15 boring locations in Area 5 (maximum 4,300 mg/kg in Boring AUD-3a at 0.5 foot bgs), 27 boring locations in Area 6 (maximum 4,200 mg/kg in Boring Q15a at 2.5 feet bgs), and 5 boring locations in Area 9 (maximum 6,300 mg/kg in Boring W-14a at 0.5 foot bgs). See Figures 3A, 4A, 5A, 6A, and 8A for the distribution of lead impacts in Areas 2, 3, 5, 6, and 9, respectively.

Based on results of the investigation, three soil samples collected during the investigation contained a lead concentration exceeding 1,000 mg/kg (identified above as the maximum concentrations in Areas 5, 6, and 9). In addition, 84 samples (and 6 duplicates) were analyzed for lead STLC. The lead STLC concentrations ranged from 1.3 mg/L to 190 mg/L (Boring Q15a at 2.5 feet bgs). A total of 52 of the 84 lead STLC analyses exceeded the 5.0 mg/L threshold. Therefore, these samples were further analyzed for lead by TCLP. Lead TCLP concentrations in these samples ranged from 0.25 mg/L to 1.7 mg/L, below the TCLP threshold of 5.0 mg/L. These results indicated that a portion of the lead-impacted soil identified during this investigation would be considered representative of California (non-Resource Conservation and Recovery Act [RCRA]) hazardous waste upon removal.

6.4.5.3 OCPs

Detectable OCPs were reported in the composite soil samples collected from the shallow soil borings across the Site as follows:

- Dieldrin at concentrations ranging from 2.6 to 13 micrograms per kilogram ($\mu\text{g/kg}$) in 9 of 92 samples analyzed;
- 4,4'-DDD at a concentration of 5.0 $\mu\text{g/kg}$ in 1 of 92 samples analyzed;
- 4,4'-DDE at concentrations ranging from 2.0 to 400 $\mu\text{g/kg}$ in 11 of 92 samples analyzed;
- 4,4'-DDT at concentrations ranging from 2.3 to 18 $\mu\text{g/kg}$ in 9 of 92 samples analyzed;
- alpha-Chlordane at concentrations ranging from 1.2 to 30 $\mu\text{g/kg}$ in 11 of 92 samples analyzed;
- gamma-Chlordane at concentrations ranging from 1.2 to 30 $\mu\text{g/kg}$ in 11 of 92 samples analyzed; and
- Chlordane at concentrations ranging from 9.2 to 270 $\mu\text{g/kg}$ in 12 of 92 samples analyzed.

All OCP concentrations were below their respective health-based screening levels. As such, the concentrations of OCPs in the soil indicate it is not a hazardous or regulated waste.

In addition, no OCPs were detected above laboratory reporting limits in soil samples collected from Borings FILL-1 and FILL-2.

6.4.5.4 PCBs

No PCBs were detected above laboratory reporting limits during this investigation.

6.4.5.5 VOCs

No VOCs were detected above laboratory reporting limits during this investigation.

6.4.5.6 SVOCs

No SVOCs were detected above laboratory reporting limits during this investigation.

6.4.5.7 Petroleum Hydrocarbons

Petroleum hydrocarbons were detected in soil samples collected to evaluate the hydraulic hoists, clarifier, and fill materials as follows:

- TPH-G: no detectable concentrations were reported above laboratory reporting limits.
- TPH-D: detectable concentrations were reported in samples collected near the hydraulic hoists (maximum 1,900 mg/kg in Boring HL2-2 at 5.0-5.5 feet bgs), clarifier (maximum 4.2 mg/kg in Boring CL1-2 at 2.0-2.5 feet bgs), and in fill materials (maximum 1.7 mg/kg in the composite sample from Boring FILL-1).
- TPH-O: detectable concentrations were reported in samples collected near the hydraulic hoists (maximum 4,700 mg/kg in Boring HL2-2 at 5.0-5.5 feet bgs), clarifier (maximum 7.3 mg/kg in Boring CL1-2 at 0.5-1.0 foot bgs), and in fill materials (maximum 3.4 mg/kg in the composite sample from Boring FILL-1).

Based on these investigation findings, only the soil sample collected from Boring HL2-2 at 5.0-5.5 feet bgs contains detectable TPH-D and TPH-O concentrations exceeding the soil screening criteria of 1,000 mg/kg.

6.4.5.8 Metals

Metals concentrations detected above laboratory reporting limits in soil samples collected to evaluate the hydraulic hoists, clarifier, and fill materials included arsenic, barium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium, and zinc. The concentrations detected were consistent with background concentrations for California soils (Kearney, 1996), including arsenic (maximum 6.4 mg/kg in Boring CL1-1 at 9.5 feet bgs) and lead (maximum 17 mg/kg in Boring HL3-2 at 9.5 feet bgs).

6.5 SOIL GAS SAMPLING AND ANALYSIS

6.5.1 Sample Locations and Rationale

The soil gas sampling investigation consisted of the installation and sampling of nested, multi-depth soil gas probes at 20 locations across the Site to evaluate subsurface methane and hydrogen sulfide concentrations. Each location was proposed for construction with sample intakes at depths of 7, 12, and 22 feet bgs (unless drilling refusal occurred), and soil gas concentrations were to be evaluated using field instrumentation and by collecting samples for laboratory analysis for methane, hydrogen sulfide, oxygen, carbon dioxide, and VOCs.

6.5.2 Methane Probe Installation

On October 8, 9, and 12, 2016, 51 nested methane probes were installed using direct-push techniques at 20 locations across the Site (see Figure 2). The proposed installation depths for the methane probes were at 7, 12, and 22 feet bgs at each location. The actual depths of the methane probes were adjusted based on the depth at which refusal was encountered during installation activities with the direct-push rig. The methane probes were constructed of Nylaflo tubing with 3-inch long plastic implant tips set within a

1-foot thick filter pack of Number 2/16 sand. Approximately 1 foot of dry granular bentonite was placed above the sand filter pack and the remaining portion of the annulus was backfilled with hydrated bentonite. A three-way valve was installed at the top of the tubing for each probe. A summary of the depth of the methane probes is presented below and copies of the boring logs are included in Appendix E.

LOCATION	PROBE DEPTHS (feet bgs)
M1	7, 12, and 22
M2	7, 12, and 22
M3	7, 12, and 22
M4	7, 12, and 22
M5	7, 12, and 22
M6	7 and 12
M7	7
M8	7, 12, and 16
M9	7, 12, and 22
M10	7 and 12
M11	7 and 12
M12	7, 12, and 16
M13	7 and 12
M14	7 and 12
M15	7, 12, and 22
M16	7 and 12
M17	7, 12, and 19
M18	7, 12, and 22
M19	7 and 12
M20	7, 12, and 22
Note: bgs = below ground surface	

6.5.3 Methane Probe Monitoring and Sampling

On October 15, 2016, initial methane probe monitoring activities were conducted. A pressure meter and a RKI Eagle Portable Multi-Gas Detector (calibrated at 12% oxygen [O₂]) were used to measure pressure, methane, O₂, hydrogen sulfide (H₂S), and carbon dioxide (CO₂) at each of the 51 methane probes.

On October 16, 2016, additional methane probe monitoring and sampling activities were conducted. Pressure, methane, O₂, H₂S, and CO₂ measurements were collected from each of the 51 methane probes using the instrumentation described above. Following probe measurement activities, vapor samples were collected from Methane Probes M1 at 22 feet, M5 at 7 feet, M5 at 12 feet, M5 at 22 feet, M9 at 12 feet, M9 at 22 feet, M15 at 12 feet, M15 at 22 feet, M20 at 7 feet, and M20 at 12 feet (a total of 10 samples and one duplicate sample) and submitted to a State certified laboratory for analysis. A vacuum box was used to collect the vapor samples in two 1 liter Tedlar bags from each of the selected probes after purging.

On March 19, 2017, additional methane probe monitoring and sampling activities were conducted. Measurements were collected from only 35 methane probes during this event. Five sets of probes (M1,

M2, M4, M7, and M18) could not be located; all of these probe locations had been installed within either grass or dirt areas. All three probes at Location M5 were missing the surface valve and contained water. In addition, the following probes contained water and could not be measured: M17 at 22 feet, M20 at 7 feet, M20 at 12 feet, and M20 at 22 feet. A pressure meter was used to measure the pressure at each probe. A vacuum box was then used to collect vapor samples in two 1-liter Tedlar bags (labeled No. 1 and 2) from each of the 35 probes after purging. A RKI Eagle Portable Multi-Gas Detector was used to collect measurements of O₂, H₂S, and methane from Tedlar Bag No. 1 for each probe.

Following probe measurement activities, the Tedlar bags collected from the five probes exhibiting the highest methane concentrations (Probes M5 at 12 feet, M9 at 7 feet, M17 at 7 feet, M17 at 12 feet, and M19 at 12 feet) were submitted to a State certified laboratory for analysis. Both Tedlar bags for each probe location were submitted for use by the laboratory. However, it was requested that the laboratory use Tedlar Bag No. 1 for all analyses; Tedlar Bag No. 2 was submitted to the laboratory as a backup sample.

A summary of the field measurements is presented in Table 3A and copies of the field sheets are included in Appendix G.

6.5.4 Laboratory Analysis of Soil Gas Samples

Vapor samples collected in October 2016 were submitted to a State-certified laboratory and analyzed for the following:

- Methane using EPA Method TO3M;
- H₂S using EPA Method 6;
- O₂ and CO₂ using ASTM D1946; and
- VOCs using EPA Method TO15M.

Vapor samples collected in March 2017 were submitted to a State-certified laboratory and analyzed for methane using EPA Method TO3M.

Results of laboratory analysis of vapor samples are presented in Tables 3A and 3B. Chain of custody protocol was followed for all samples selected for laboratory analysis. The chain of custody form accompanied the samples from the sampling locality to the laboratory, providing a continuous record of possession prior to analysis. Copies of the official laboratory reports and chain of custody records are included in Appendix H.

6.5.5 Methane Probe Abandonment

On April 13, 2017, the methane probes were abandoned by either pulling the tubing, or capping the tubing with a metal screw (if the tubing could not be removed) and covering each location with clean soil. The surface of each methane probe location was resurfaced with either rapid set concrete (for areas within paving) or grass/soil (for locations within the unpaved areas).

6.5.6 Findings

6.5.6.1 *Field Measurements*

October 15, 2016

- Pressure readings ranged from 0 to 0.23 inches of water column (IWC; maximum pressure in Probe M5 at 22 feet).
- Methane concentrations ranged from 0 to 24,500 parts per million by volume (ppmv; maximum concentration in Probe M20 at 12 feet).
- H₂S concentrations ranged from 0 to 34.5 ppmv (maximum concentration in Probe M20 at 12 feet).
- O₂ concentrations ranged from 2.3 to 20.8 percent (maximum concentration in Probes M18 at 7 feet and M19 at 7 feet).
- CO₂ concentrations ranged from 900 ppmv to greater than 5 percent (maximum concentrations in Probes M5 at 7 feet, M5 at 12 feet, M5 at 22 feet, M13 at 12 feet, M15 at 7 feet, M15 at 12 feet, and M15 at 22 feet).

October 16, 2016

- Pressure readings ranged from 0 to 0.05 IWC (maximum pressure in Probe M5 at 22 feet).
- Methane concentrations ranged from 0 to 7,500 ppmv (maximum concentration in Probe M20 at 12 feet).
- H₂S concentrations ranged from 0 to 3 ppmv (maximum concentration in Probe M20 at 12 feet).
- O₂ concentrations ranged from 7.2 to 20.9 ppmv (maximum concentration in Probes M9 at 22 feet, M19 at 7 feet, and M19 at 12 feet).
- CO₂ concentrations ranged from 2,330 ppmv to greater than 5 percent (maximum concentrations in Probes M5 at 7 feet, M5 at 12 feet, M5 at 22 feet, M13 at 12 feet, M15 at 12 feet, M15 at 22 feet, and M20 at 7 feet).

March 19, 2017

- Pressure readings ranged from 0 to 0.03 IWC (maximum pressure in Probes M6 at 12 feet and M8 at 16 feet).
- Methane concentrations ranged from 0 to 210 ppmv (maximum concentration in Probe M17 at 7 feet).
- No measurable H₂S concentrations were observed.
- O₂ concentrations ranged from 3.9 to 20.4 percent (maximum concentration in Probe M19 at 12 feet).
- CO₂ concentrations were not measured.

A summary of the field measurements collected from the methane probes on October 15 and 16, 2016, and March 19, 2017, is presented below.

- The maximum pressure reading of 0.23 IWC was observed in Probe M5 at 22 feet on October 15, 2016.
- The maximum methane concentration of 24,500 ppmv was observed in Probe M20 at 12 feet on October 15, 2016.

- The maximum H₂S concentration of 34.5 ppmv was observed in Probe M20 at 12 feet on October 15, 2016.

6.5.6.2 Results of Laboratory Analysis of Vapor Samples

A summary of the results of laboratory analysis of soil gas samples collected from the methane probes is presented below.

October 16, 2016

- Methane concentrations ranged from not detect (ND<1.2 ppmv) to 11,000 ppmv (maximum concentration in Probes M15 at 12 feet and M15 at 22 feet).
- No detectable H₂S concentrations were present in the soil gas samples collected.
- O₂ concentrations ranged from 23,400 to 179,000 ppmv (maximum concentration in Probe M9 at 22 feet).
- CO₂ concentrations ranged from 37,600 ppmv to 329,000 ppmv (maximum concentration in Probe M15 at 22 feet).
- Concentrations of the following VOCs were reported: benzene, toluene, ethylbenzene, total xylenes, tetrachloroethylene (PCE), 2-butanone, carbon disulfide, chloroform, chloromethane, dichlorodifluoromethane, 4-ethyltoluene, 4-methyl-2-pentanone, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene. Refer to Table 3B for a summary of the VOC concentrations detected.
- One duplicate vapor sample was collected from Probe M20 at 12 feet. All analytes detected in the duplicate vapor sample appear to be consistent with the analyte detections present in the initial vapor sample.

March 19, 2017

- No detectable methane concentrations were present in the soil gas samples collected.
- Soil gas samples were not analyzed for H₂S, O₂, CO₂, or VOCs.

6.6 INVESTIGATION-DERIVED WASTE

Waste materials generated during investigation activities were temporarily stored on Site in labeled, DOT-approved, 55-gallon drums. The waste materials were stored in a fenced location selected by LAUSD personnel. Following completion of waste profiling, all waste materials will be transported to approved waste disposal facilities. Waste disposal documentation will be provided under separate cover.

7.0 HUMAN HEALTH AND ECOLOGICAL SCREENING EVALUATIONS

7.1 HUMAN HEALTH SCREENING EVALUATION

The PEA screening evaluation for human health effects involves identifying potential chemicals of concern, and then comparing detected concentrations to established screening levels developed by EPA and DTSC. The screening levels were developed to incorporate health risks and hazard estimates associated with human exposure, so concentrations detected above these screening levels are deemed to pose an unacceptable health risk for residential exposure. The human health screening evaluation is performed assuming an

unrestricted future residential land-use scenario, which is more health protective than the use of the Site as a school.

Constituents of concern identified during this PEA investigation include arsenic, lead, and petroleum hydrocarbons (specifically TPH-D and TPH-O). Arsenic was detected in 48 boring locations at concentrations exceeding the 12 mg/kg screening level (maximum concentration of 66 mg/kg), lead was detected in 66 boring locations at concentrations exceeding the 80 mg/kg screening level (maximum concentration of 6,300 mg/kg), and TPH-D and TPH-O concentrations were detected in one boring location exceeding the screening level of 1,000 mg/kg (maximum 1,900 mg/kg TPH-D and 4,700 mg/kg TPH-O). Based on these findings, a remedial response is required for areas where arsenic, lead, and/or petroleum hydrocarbons exceed their respective screening levels.

7.2 ECOLOGICAL SCREENING EVALUATION

The Site and its immediate surroundings have been developed by either residential or commercial activity for decades. Natural wildlife habitat does not exist within 1 mile of the Site, and most of the natural organisms on the Site and in the vicinity have been replaced with those typical of urban areas where small patches or edges of disturbed soil persist, typically occupied by hardy, exotic plant species. No sensitive native plant species were observed or expected to occur within the Site. For these reasons, a formal ecological risk assessment was not conducted for the Site.

8.0 DELINEATION OF AREAS OF IMPACTED SOIL

Based on investigation findings, the volumes of soil exceeding acceptable screening levels that will need to be removed prior to or concurrent with renovation activities were calculated for each area (see Figures 3A, 4A, 5A, 6A, 8A, and 9A). A summary of each area is presented below with the proposed excavation volume, type of soil impact (i.e., lead, arsenic, and/or petroleum hydrocarbons), and the portion of lead-impacted soil that qualifies as California Hazardous (Cal-Haz) lead-affected soil.

- Area 2 – 541.20 cubic yards (811.81 tons) of lead-affected soil, including 123.89 cubic yards (185.83 tons) of Cal-Haz lead-affected soil.
- Area 3 – 708.33 cubic yards (1,062.50 tons) of lead- and arsenic-affected soil, including 168.98 cubic yards (253.47 tons) of Cal-Haz lead-affected soil.
- Area 5 – 1,640.19 cubic yards (2,460.28 tons) of lead-affected soil, including 1,444.44 cubic yards (2,166.67 tons) of Cal-Haz lead-affected soil.
- Area 6 – 2,945.00 cubic yards (4,417.50 tons) of lead- and arsenic-affected soil, including 1,176.57 cubic yards (1,764.86 tons) of Cal-Haz lead-affected soil.
- Area 9 – 1,137.19 cubic yards (1,705.78 tons) of lead- and arsenic-affected soil, including 138.89 cubic yards (208.33 tons) of Cal-Haz lead-affected soil.
- Hydraulic Hoists and Clarifier – 46.67 cubic yards (70 tons) of hydrocarbon-affected soil.

The total volume of impacted soil exceeding acceptable screening levels is approximately 7,019 cubic yards (10,528 tons). Complete details regarding the proposed excavations (locations, areas, and depths) are included in Tables 4A and 4B.

9.0 QUALITY ASSURANCE/QUALITY CONTROL

The following quality assurance/quality control (QA/QC) procedures were used during this investigation to ensure data integrity:

- Field quality control measures included the use of clean, disposable nitrile gloves while collecting and handling individual soil samples, decontamination of all non-disposable sampling equipment before and after each use, and adherence to strict sample collection, labeling, and preservation procedures during sample collection.
- Duplicate soil samples were collected and analyzed at a minimum frequency of 10 percent of the primary samples to evaluate statistical precision. The duplicate soil samples were analyzed for the same parameters as the primary samples, and the analytical results are presented in the data tables with the primary samples results for comparison.
- Field equipment blanks were collected and analyzed at a frequency of one sample per day per sampling crew to evaluate possible cross contamination during sample collection. The field equipment blanks were analyzed for the same parameters as the primary samples, and the analytical results are presented at the end of each data table.
- Laboratory-supplied trip blanks were included in each cooler during transportation of samples for VOC analysis, and the samples were analyzed to evaluate possible cross contamination during sample shipment.
- All samples were transferred to the laboratory in accordance with chain of custody procedures, and were subject to the laboratory's standard QA/QC procedures, including the use of method blanks, surrogate recoveries, matrix spike samples, laboratory control samples, and duplicate samples.
- All samples collected during the investigation were preserved and analyzed within the specified holding times for the individual analyses.
- Appropriate laboratory detection limits were employed for each chemical constituent to allow comparison to applicable screening levels.

Upon completion of the investigation, all data were reviewed to confirm that they met the data quality objectives for precision, accuracy, representativeness, completeness, and comparability. Based on review of the data collected during this investigation, it is the opinion of TRC that all data collected meets the data quality objectives for this investigation.

10.0 FIELD VARIANCES

The field investigation outlined herein was conducted as initially scoped by LAUSD, with the following variances:

- The originally proposed work scope included 283 shallow soil borings across the Site to assess arsenic, lead, OCP, and PCB concentrations. Due to identified impacts, an additional 190 borings were added to fully assess the Site.
- Select soil boring locations and soil gas probe locations were moved slightly from their originally proposed locations to avoid subsurface utilities or to take advantage of nearby planters or grassy areas (rather than coring concrete sidewalks and walkways).
- Six borings (PE-5, B-7, C-7, D-7, E-7, and F-7) proposed in the tennis courts in Area 2 as part of the original work scope were removed from the sampling program; however, two of these borings (B-7 and C-7) were later added back into the program to assist with lateral assessment in that area.
- Five borings (H-1 through H-5) proposed in the basketball courts in Area 2 were not listed in the proposed investigation table work scope, but were shown on the proposed investigation figure. These five borings were completed.
- One boring (MB-6) was added to the work scope of five borings (MB-1 through MB-5) proposed around the Music Building in Area 5.
- The soil gas probes were proposed for installation to a depth of 22 feet bgs, with sample intakes at depths of 7, 12, and 22 feet bgs. However, due to drilling refusal during installation, 11 of the 20 locations were installed shallower than proposed (includes M6, M7, M8, M10, M11, M12, M13, M14, M16, M17, and M19). One of the modified probe locations was constructed with only one sample intake at 7 feet bgs, seven of the modified probe locations were constructed with two sample intakes at depths of 7 and 12 feet bgs, and the remaining three modified probe locations were still constructed with three sample intakes, but the deepest sample intake was installed to a depth shallower than 22 feet bgs.

11.0 CONCLUSIONS AND RECOMMENDATIONS

11.1 SUMMARY AND CONCLUSIONS

Roosevelt High School is currently an operational LAUSD school scheduled for a comprehensive modernization project involving removal and/or renovation of multiple site structures. The proposed renovation will include demolition of the music building, gymnasium, auditorium/classroom building, industrial arts building, four classroom buildings, and 19 portable classroom buildings. New buildings proposed for construction will include a general classroom building, a science and specialty classroom building, a gymnasium, an auditorium, a lunch shelter, and a health/wellness clinic. In preparation for the school improvements and renovations, LAUSD initiated investigation and analysis to identify potential environmental conditions that may warrant consideration or mitigation during the proposed modernization and renovation effort.

The incipient investigation activities included the preparation of a Phase 1 ESA that was prepared by Converse in August 2016. The Phase 1 ESA included research of available site background information, including regulatory agency database lists and agency file searches, and did not reveal documentation of any known release(s) of hazardous materials at the Site. Based upon the information derived from the

Phase 1 ESA, the Site is not identified as a known hazardous waste disposal site, hazardous substance release site, or landfill, and no hazardous materials pipelines are located beneath or adjacent to the Site. The Phase 1 ESA identified several onsite RECs.

Based on the findings of the Phase 1 ESA, the following activities were recommended to further evaluate the Site:

- Based on the age of the Site buildings, collect shallow soil samples around the drip lines of the existing and former buildings and analyze them for the potential presence of LBP residue, and from around the foundations of the existing and former buildings and analyze them for OCPs.
- Based on the potential presence of arsenic and PCBs in shallow soils, collect shallow soil samples across the Site and analyze them for arsenic and PCBs.
- Based on the presence and historical use of the hydraulic hoists and 3-stage clarifier associated with the former auto shop operations (Industrial Arts Building), collect soil samples in these locations to determine whether the subsurface has been impacted from these features.
- Considering that the site is located within the Boyle Heights Oil Field and within a designated methane zone in the City of Los Angeles, conduct a methane survey in accordance with LADBS Site Testing Standards.

The PEA investigation activities were subsequently conducted between October 3, 2016, and June 14, 2017, and included sampling of the following:

- 473 shallow soil borings across the Site;
- 8 soil borings near the hydraulic hoists at the Industrial Arts Building;
- 2 soil borings near the clarifier at the Industrial Arts Building;
- 2 soil borings to evaluate fill materials beneath the northern and southern portions of the Site; and
- 20 nested, multi-depth soil gas probes across the Site.

Results of the PEA investigation indicated the following:

- Arsenic was detected in soil at concentrations exceeding the screening level of 12 mg/kg in 48 boring locations across the Site (maximum 66 mg/kg).
- Lead was detected in soil at concentrations exceeding the screening level of 80 mg/kg in 66 boring locations across the Site (maximum 6,300 mg/kg).
- OCPs were detected in multiple composite samples across the Site; however, all OCP concentrations were below their respective health-based screening levels.
- No PCBs, VOCs, SVOCs, or TPH-G were detected in soil above laboratory reporting limits during this investigation.
- TPH-D and TPH-O were detected in soil at concentrations exceeding the screening level of 1,000 mg/kg in one sample collected at one of the four hydraulic hoists (maximum 1,900 mg/kg TPH-D and 4,700 mg/kg TPH-O).
- Additional metals concentrations detected beneath the Site are consistent with background concentrations for California soils.
- The maximum concentrations of methane and hydrogen sulfide in soil gas measured in the field included 24,500 ppmv and 34.5 ppmv, respectively. The maximum concentrations of methane and hydrogen sulfide in soil gas detected in the laboratory samples included 11,000 ppmv methane and

no detectable hydrogen sulfide. Detectable VOCs were also reported at low concentrations in the soil gas samples collected for analysis.

The volume of soil impacted with arsenic, lead, and/or petroleum hydrocarbons above screening levels was calculated to be approximately 7,019 cubic yards (10,528 tons).

Based on the methane concentrations detected beneath the Site, mitigation will be required as part of future redevelopment of the Site. The methane mitigation system or techniques to be implemented will be sufficient to mitigate the low concentrations of VOC concentrations detected.

11.2 RECOMMENDATIONS

TRC recommends that a Removal Action Workplan (RAW) be prepared to address the excavation, transport, and off-site disposal of soil impacted with arsenic, lead, and petroleum hydrocarbons above screening levels. The RAW should be prepared to comply with DTSC requirements. Soil removal activities outlined in the RAW can be implemented either prior to, or concurrent with, the proposed construction work scope.

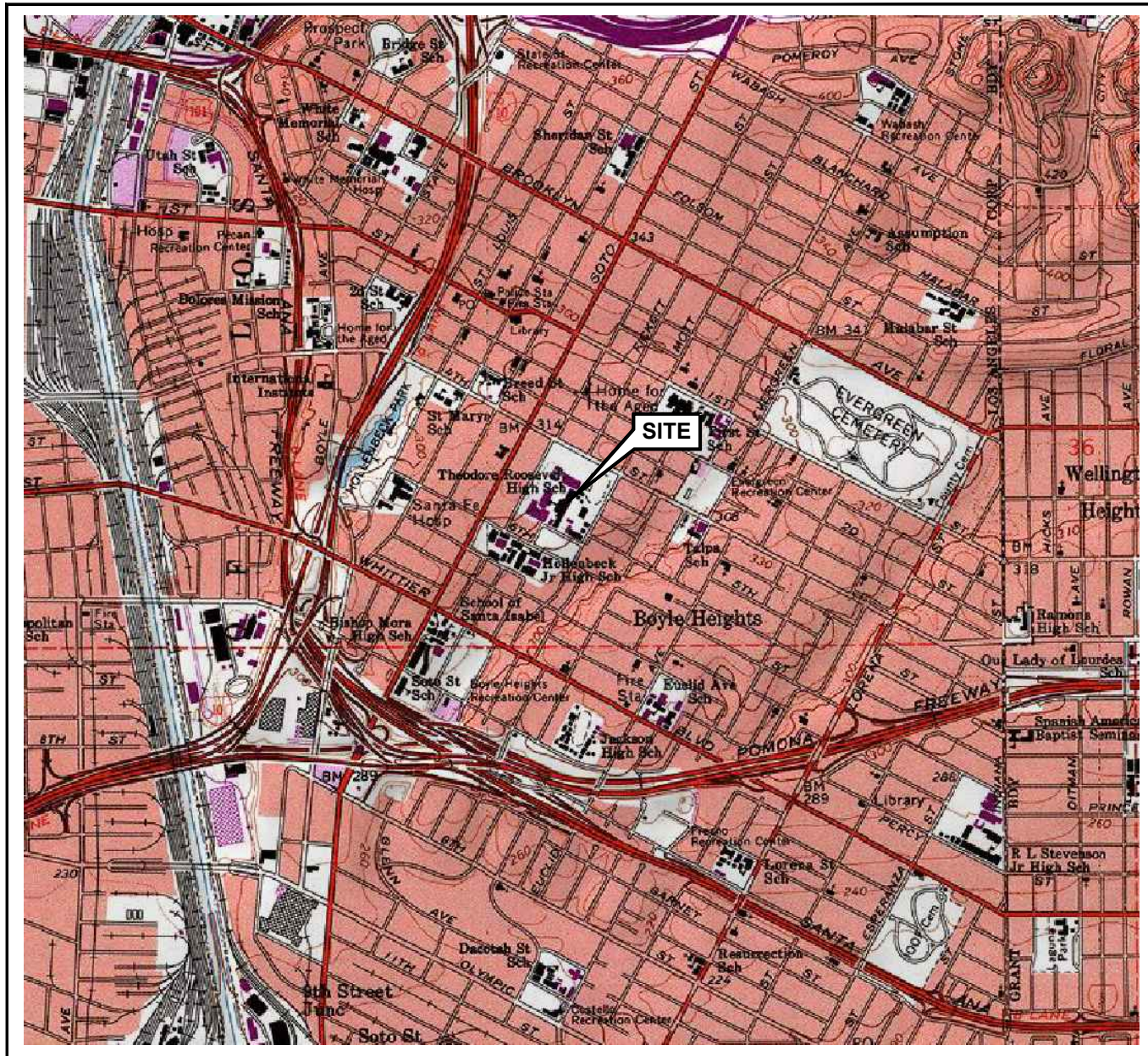
Recommendations for the methane mitigation approach are currently being prepared and will be provided in a separate methane investigation report.

12.0 REFERENCES

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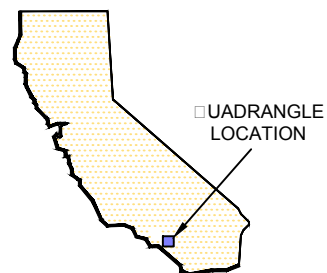
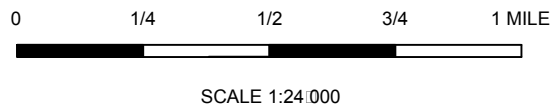
FIGURES

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SOURCE:

United States Geological Survey
1:5 Minute Topographic Map:
Los Angeles Quadrangle



□ QUADRANGLE
LOCATION



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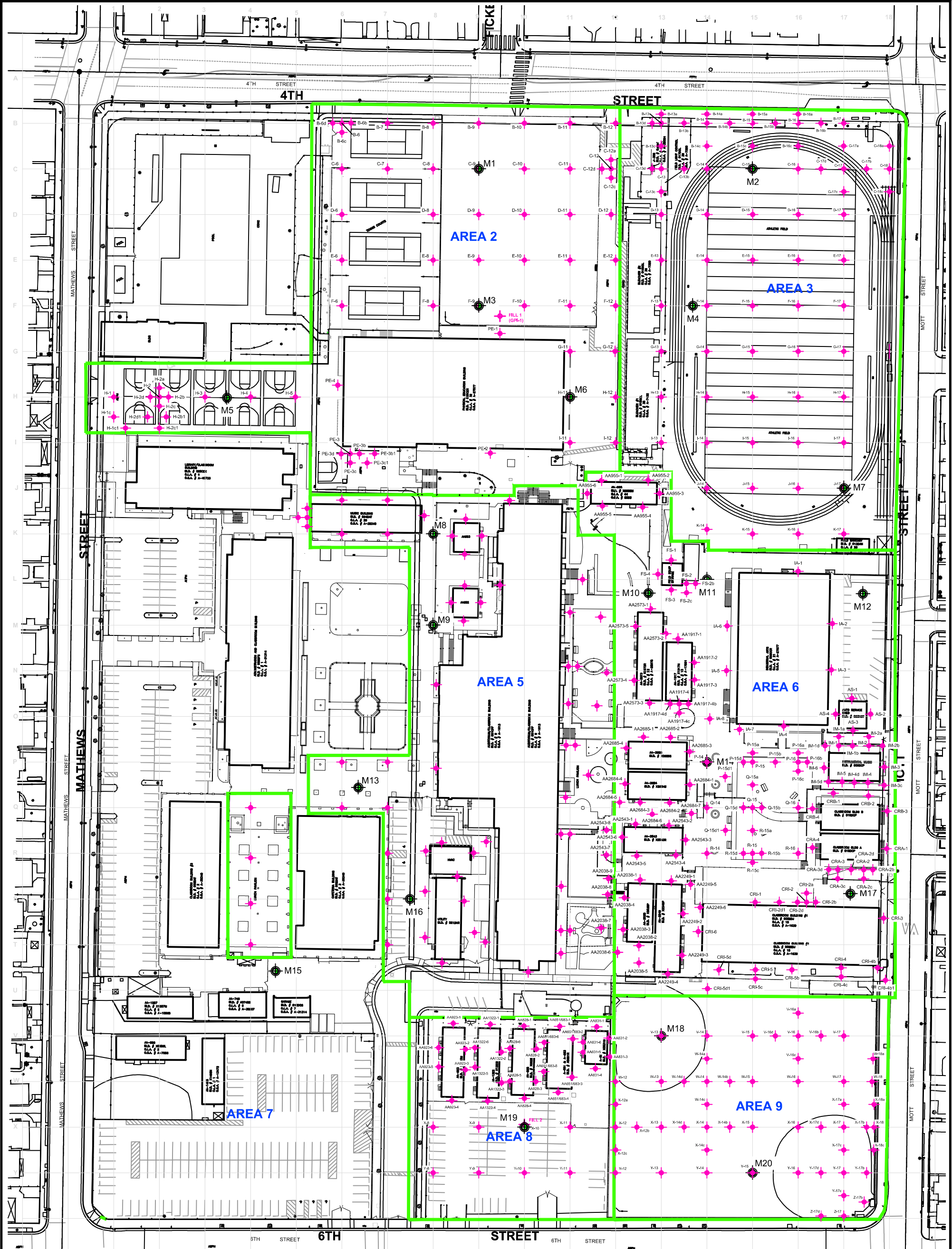
PROJECT: **LAUSD
ROOSEVELT HIGH SCHOOL
456 S. MATHEWS STREET
LOS ANGELES, CALIFORNIA**

TITLE:

VICINITY MAP

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DATE:	11/03/2016
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FIGURE 1

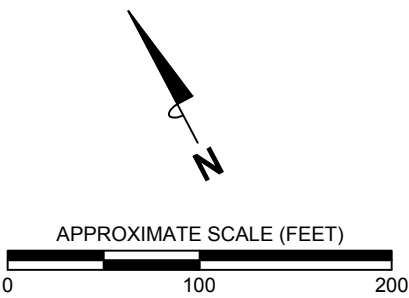


LEGEND

- Proposed LBP and OCP Sample Location
- Undocumented Fill Sampling Location
- Methane Probe Location

NOTES:

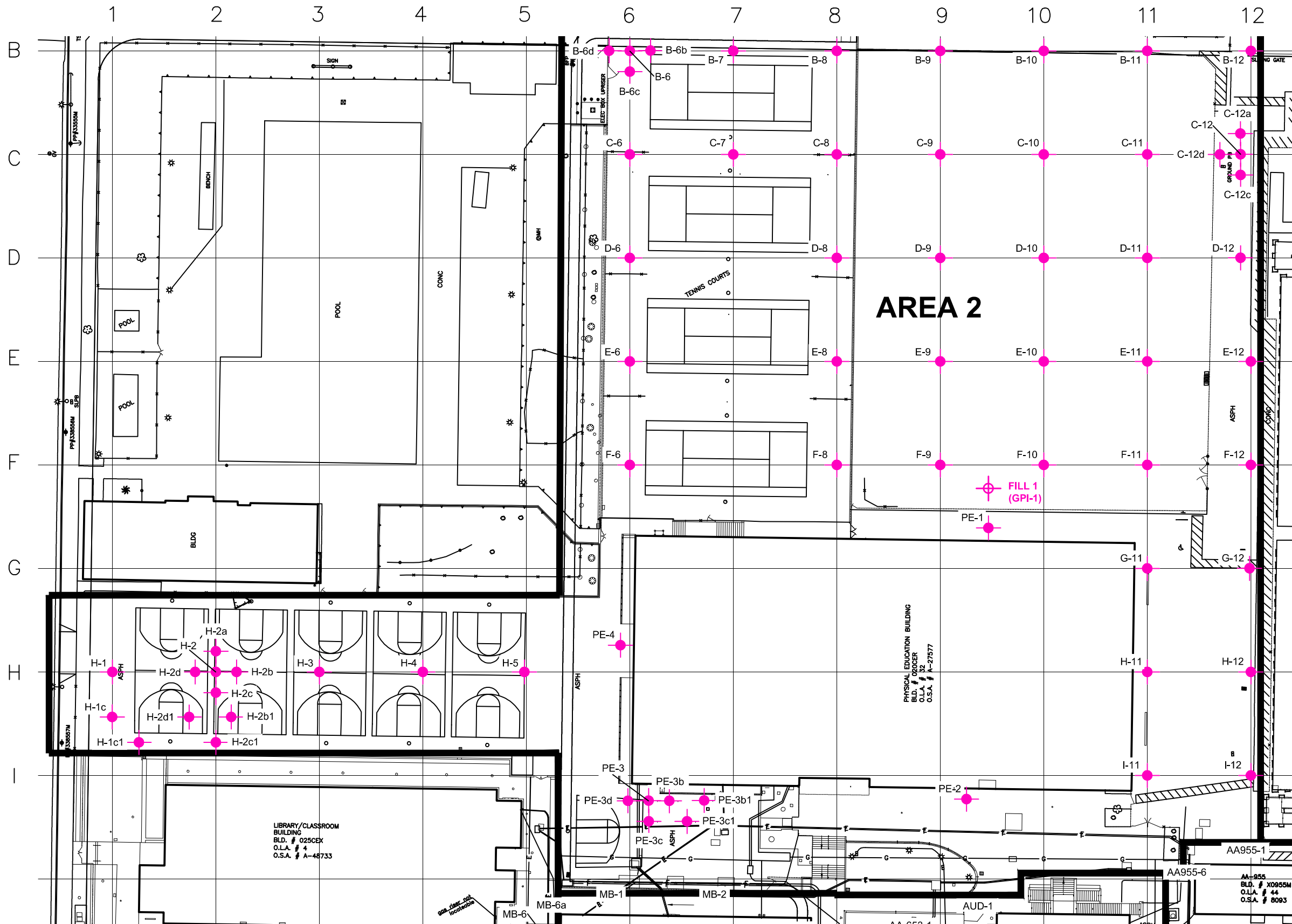
LBP = lead based paint.
OCP = organochlorine pesticides.



Source: Base map provided by Converse Consultants.

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LEGEND

- B-12 Sample Location
- Undocumented Fill Sampling Location

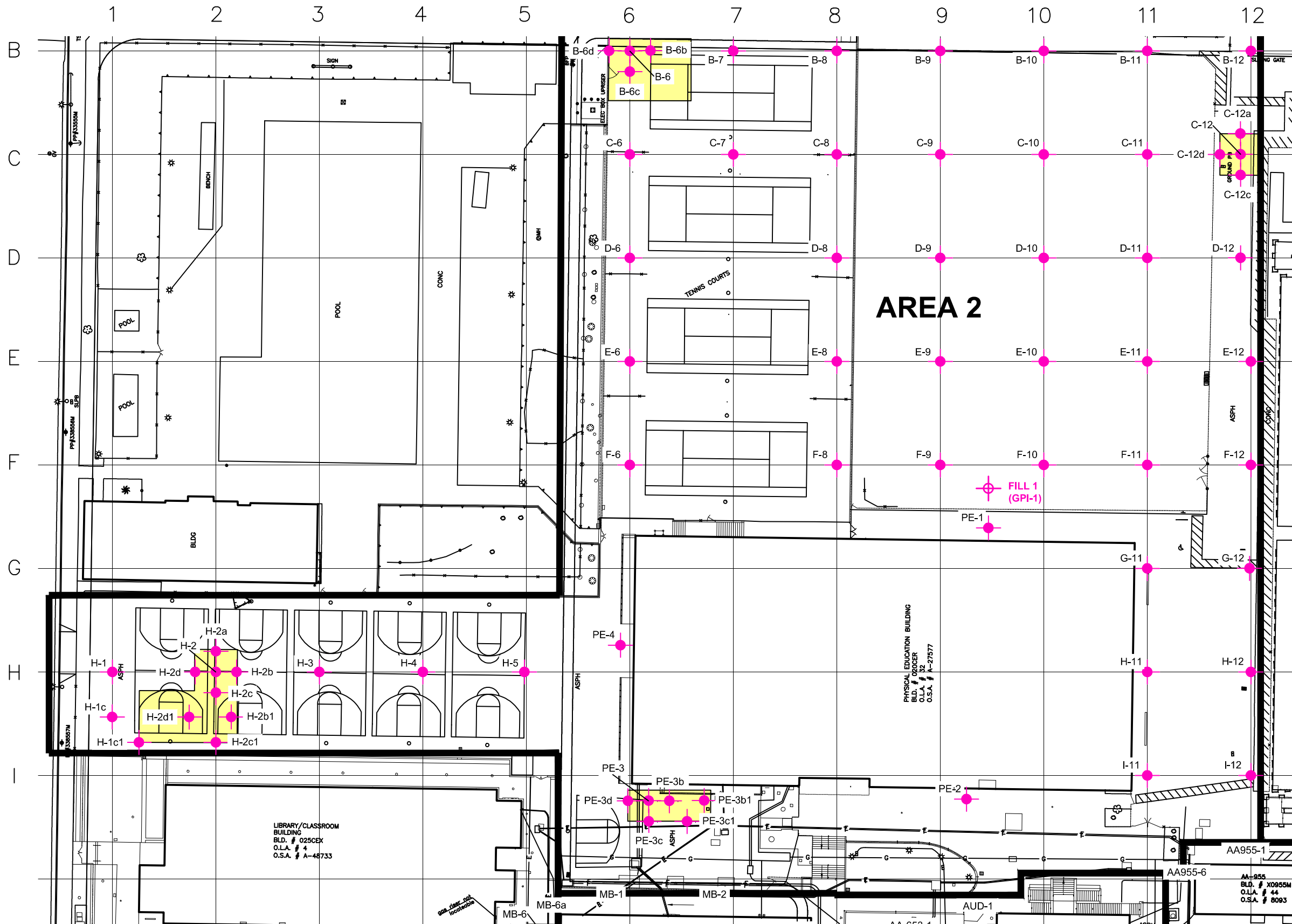
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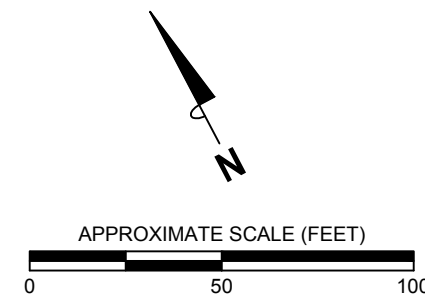
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LEGEND

- B-12 Sample Location
- Undocumented Fill Sampling Location
- Proposed Excavation Area for Lead

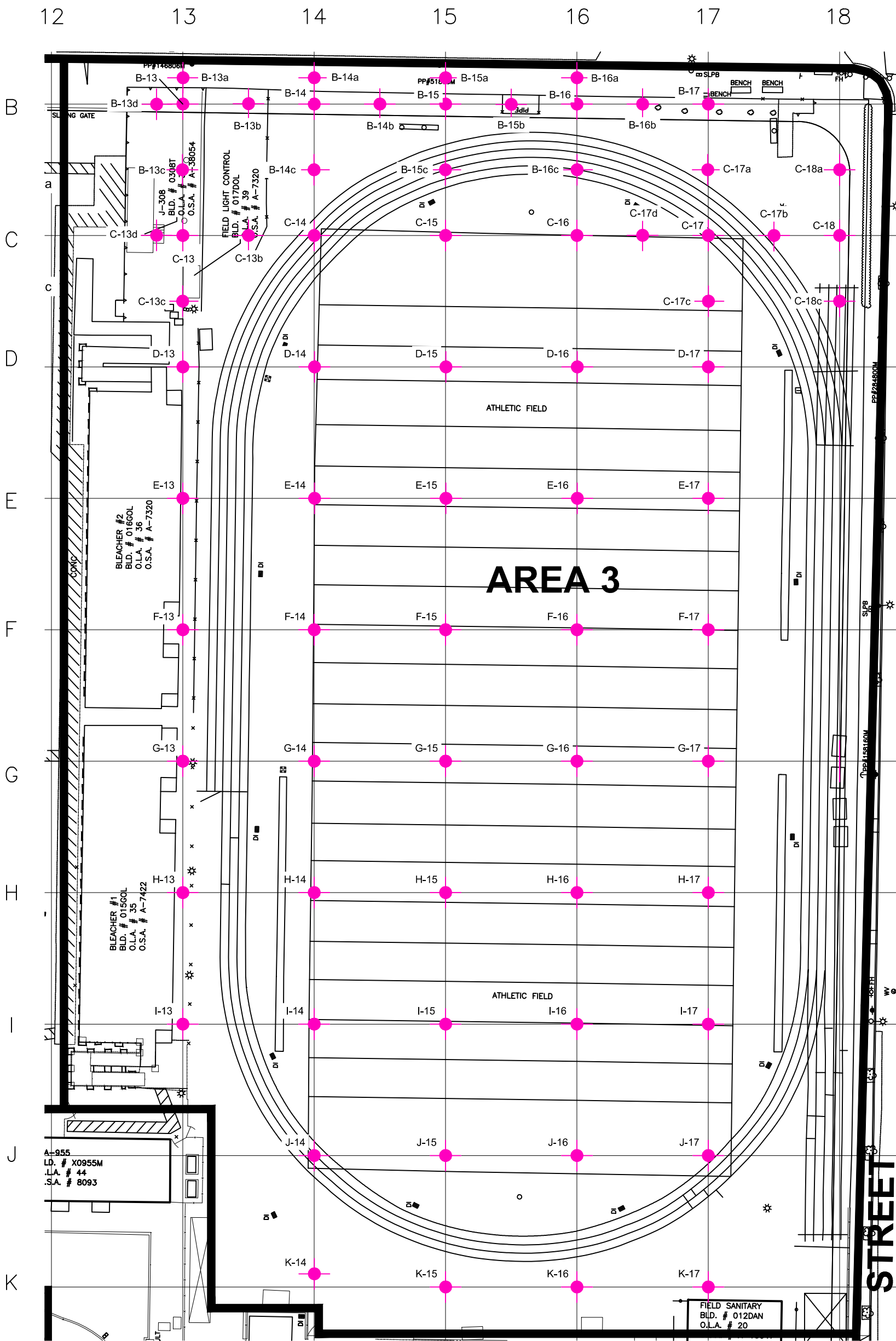


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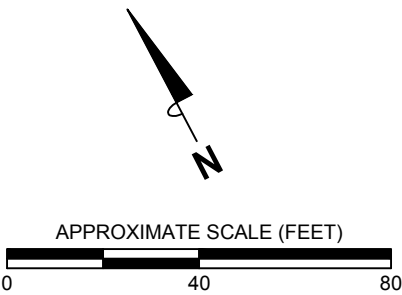
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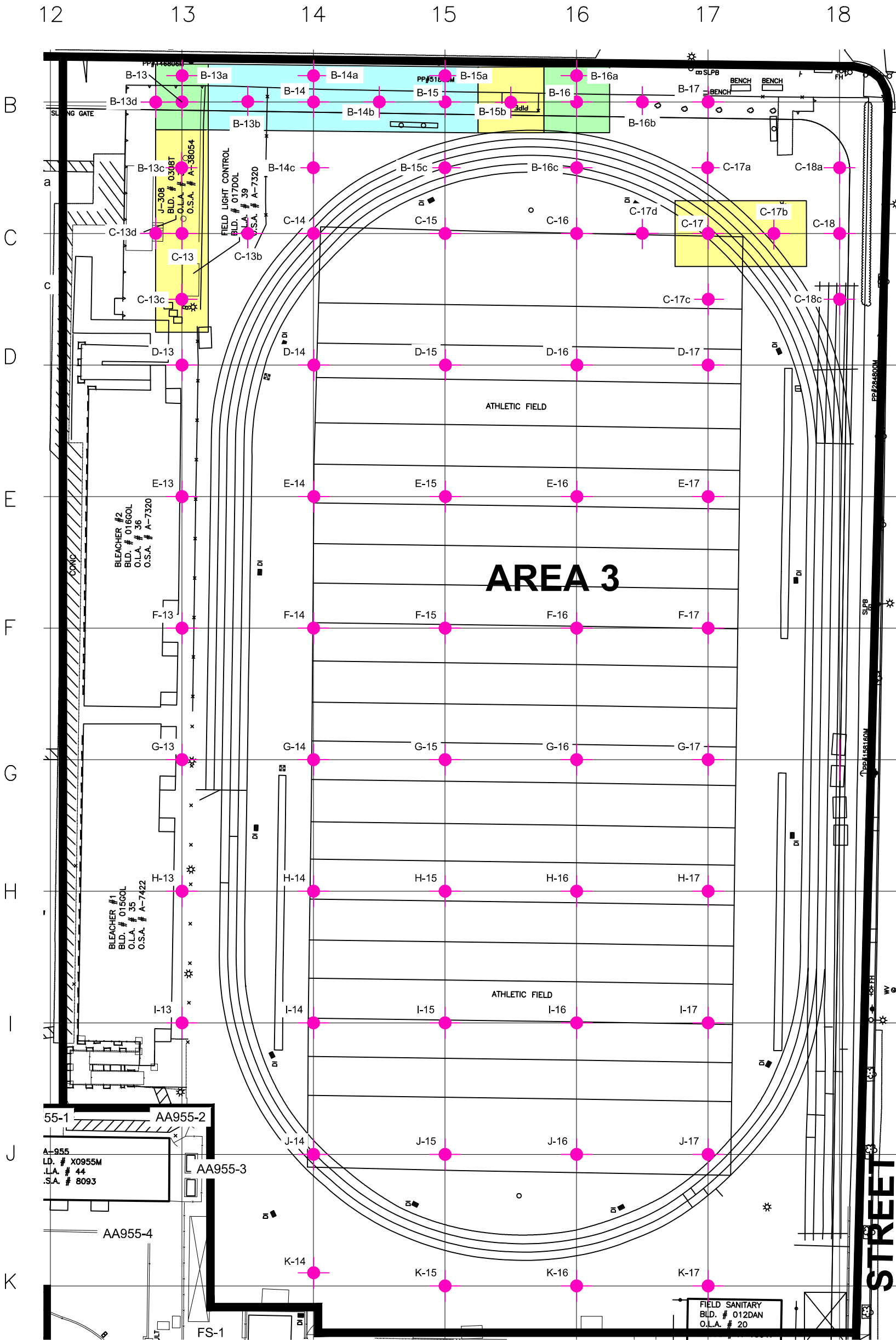


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B-13 Sample Location



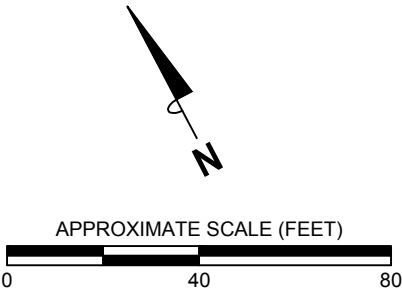
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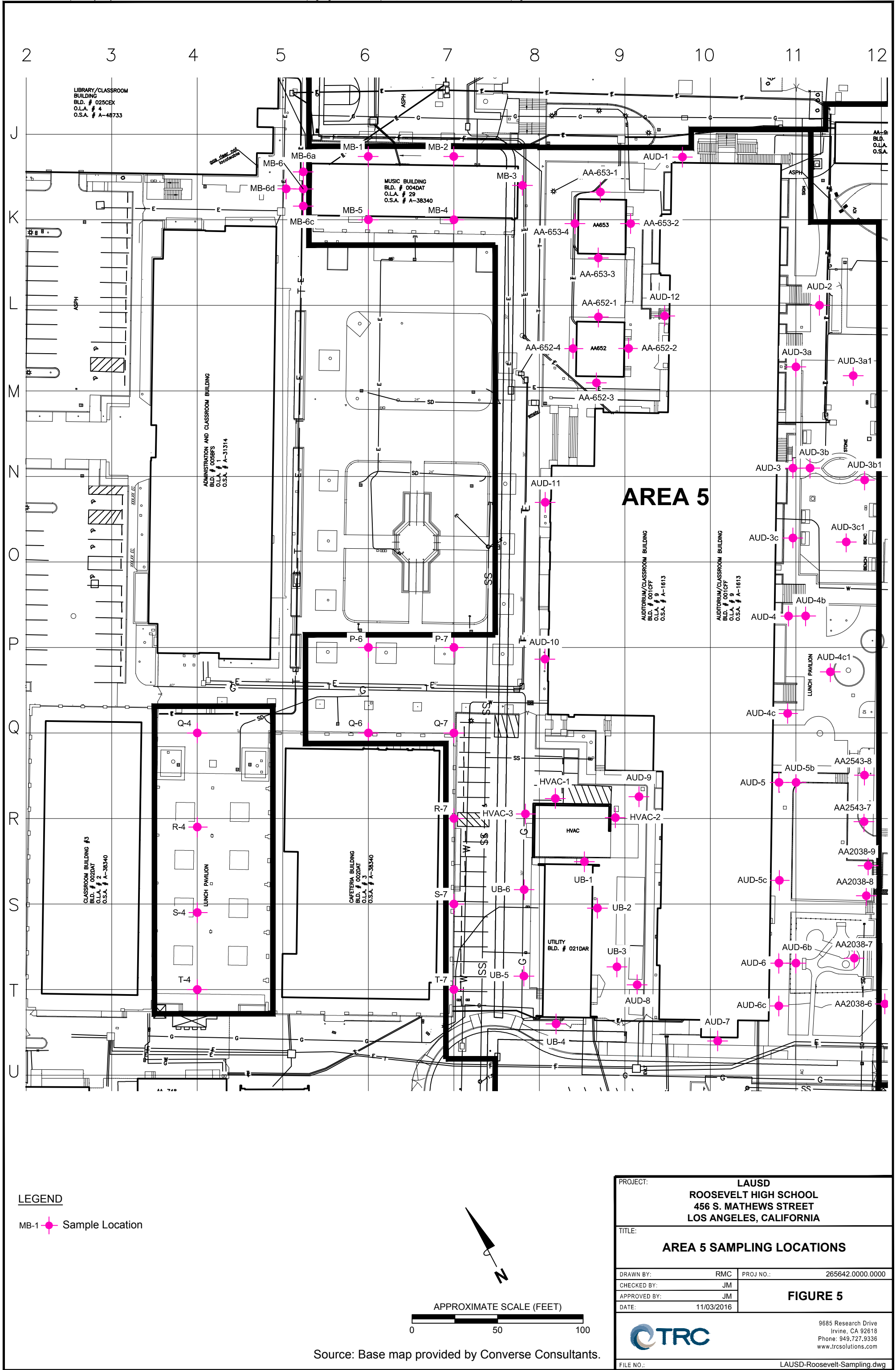
- B-13 Sample Location
- Proposed Excavation Area for Lead
- Proposed Excavation Area for Arsenic
- Proposed Excavation Area for Lead and Arsenic

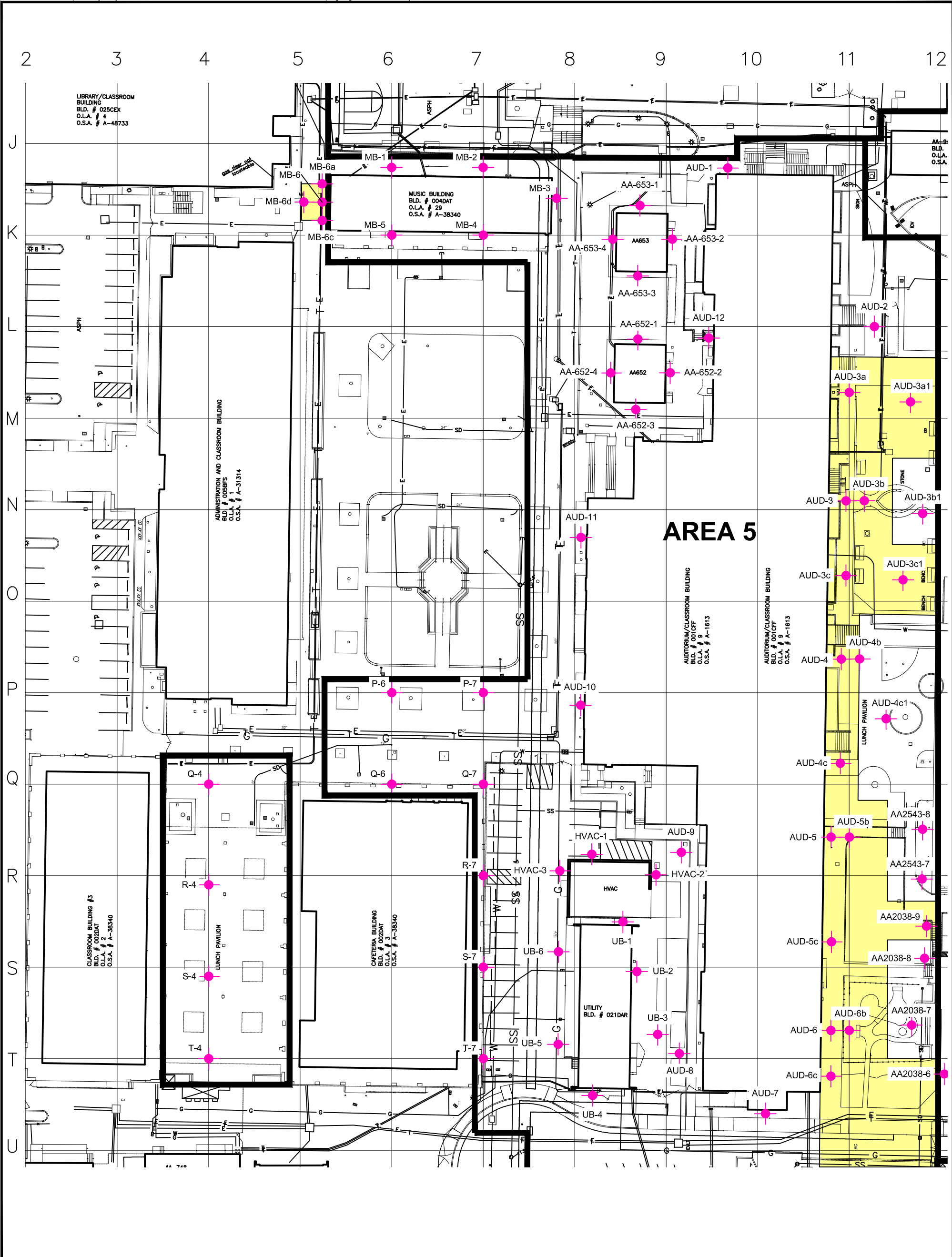


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
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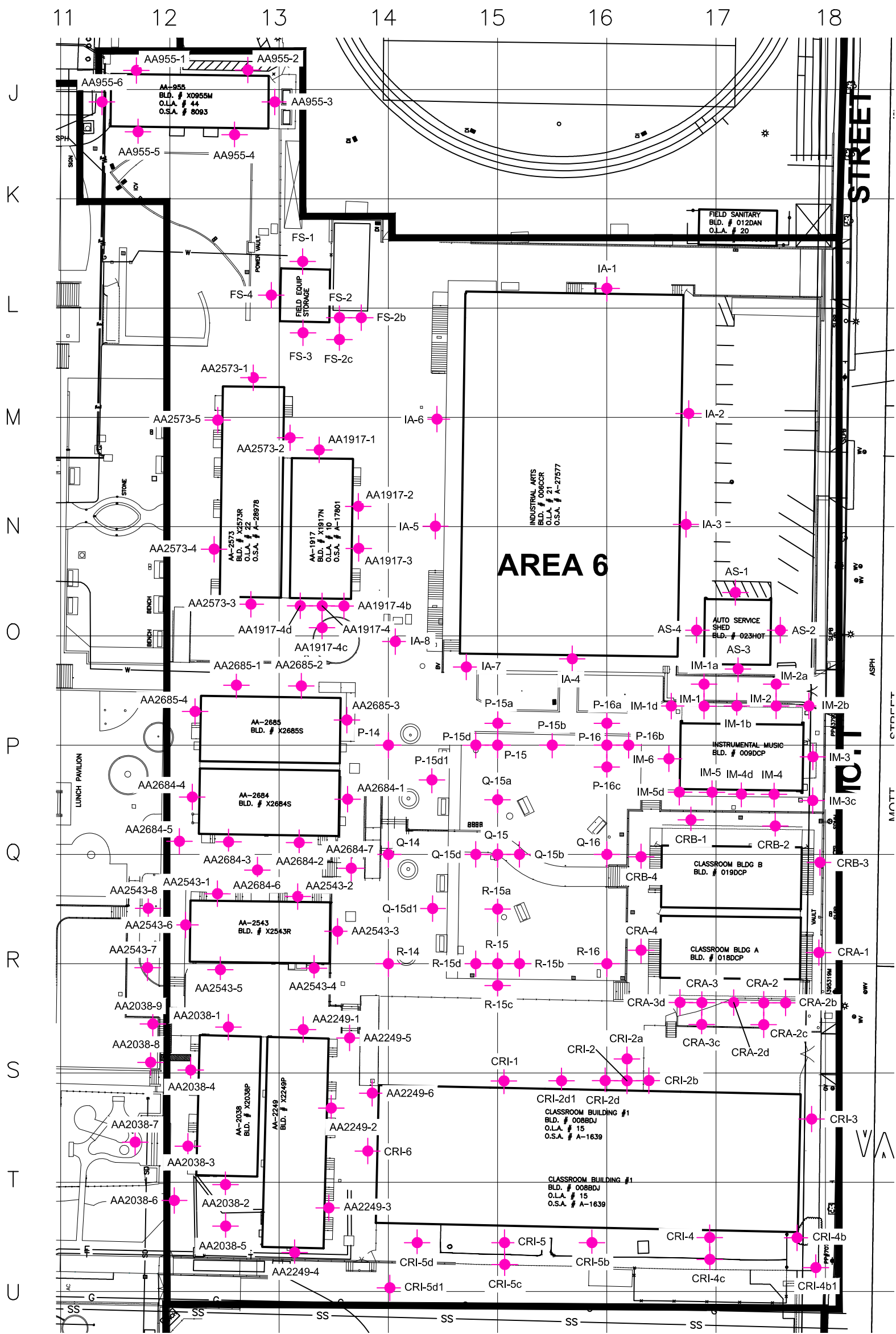


LEGEND

- MB-1  Sample Location
-  Proposed Excavation Area for Lead

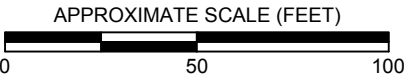
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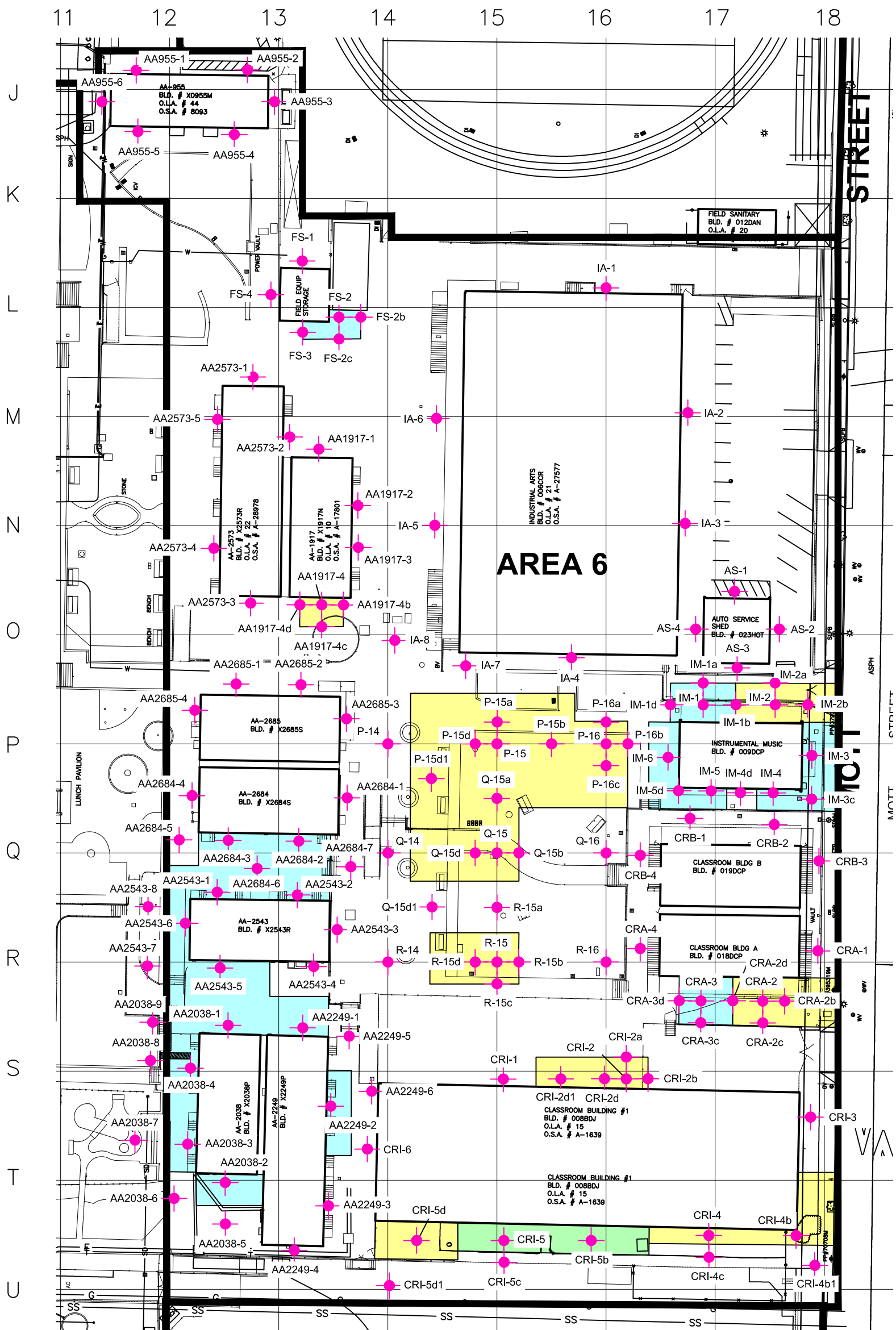
LEGEND

FS-1 Sample Location



Source: Base map provided by Converse Consultants.

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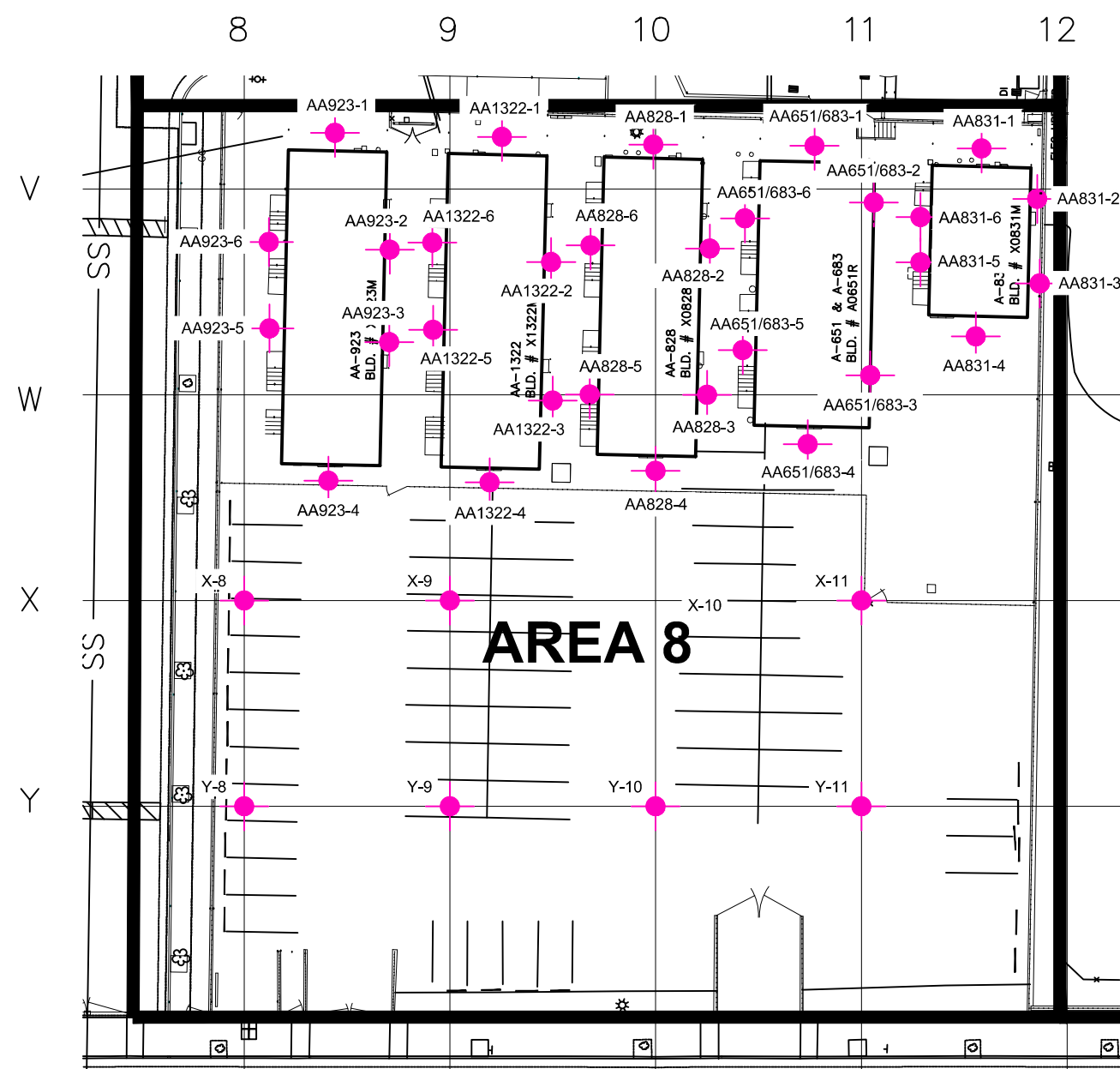
- FS-1 Sample Location
- Proposed Excavation Area for Lead
- Proposed Excavation Area for Arsenic
- Proposed Excavation Area for Lead and Arsenic

Source: Base map provided by Converse Consultants.

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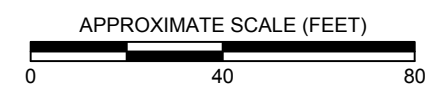
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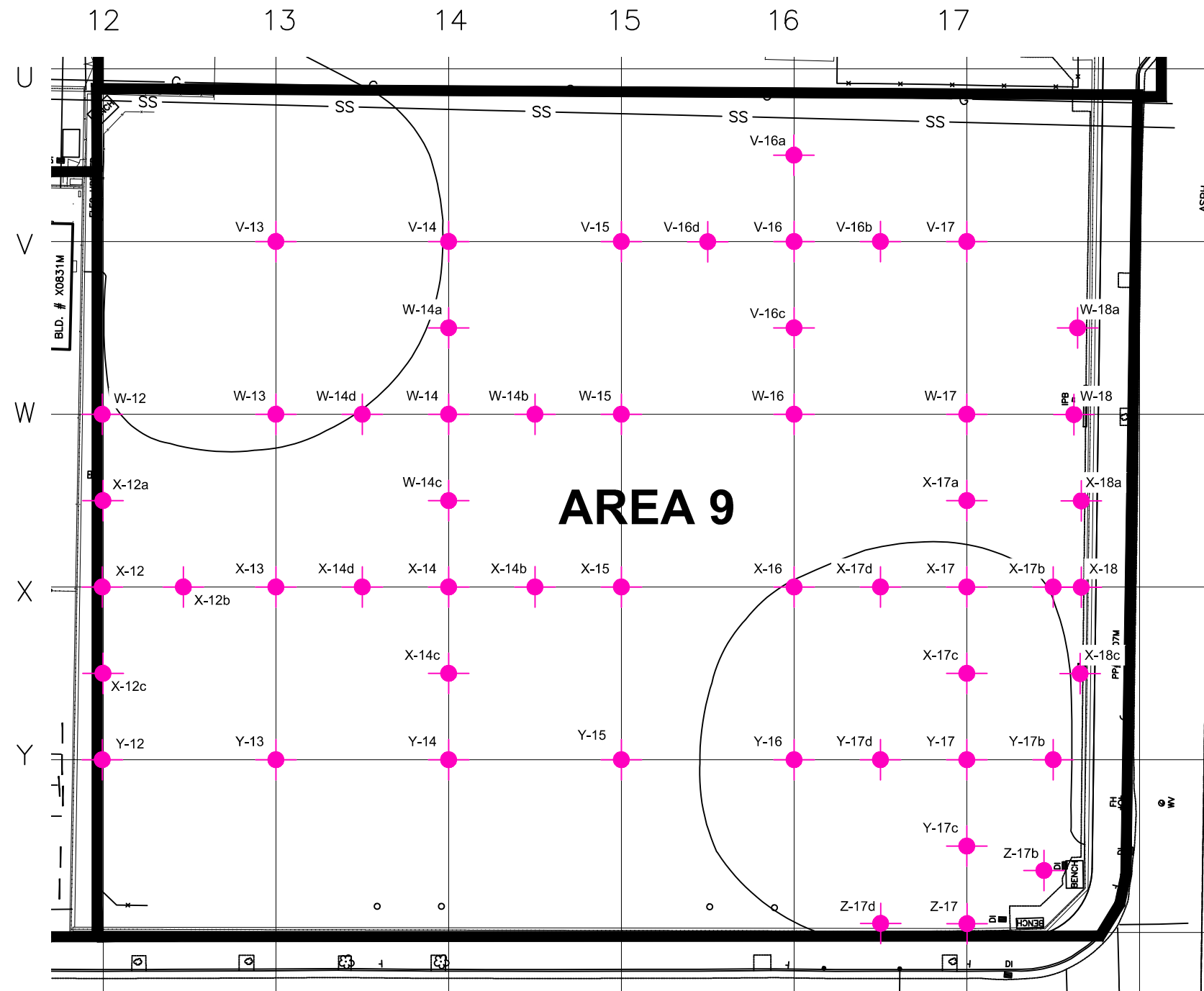
- Y-11 Sample Location
- Undocumented Fill Sampling Location



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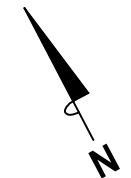
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APPROVED BY: JM	
DATE: 11/03/2016	
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FILE NO.: LAUSD-Roosevelt-Sampling.dwg	

1147 -- ATTACHED XREFS: -- ATTACHED IMAGES: -- ATTACHED TCG LOGS:
DRAWING NAME: L:\Graphics\Projects\byName\LAUSD - Roosevelt\HS\265642.0000.00001 LAUSD-Roosevelt-Sampling.dwg --- PLOT DATE: July 14, 2017 - 11:59AM --- LAYOUT: AREA9-Sampling

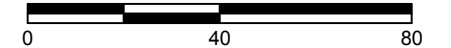


LEGEND


Y-17 Sample Location

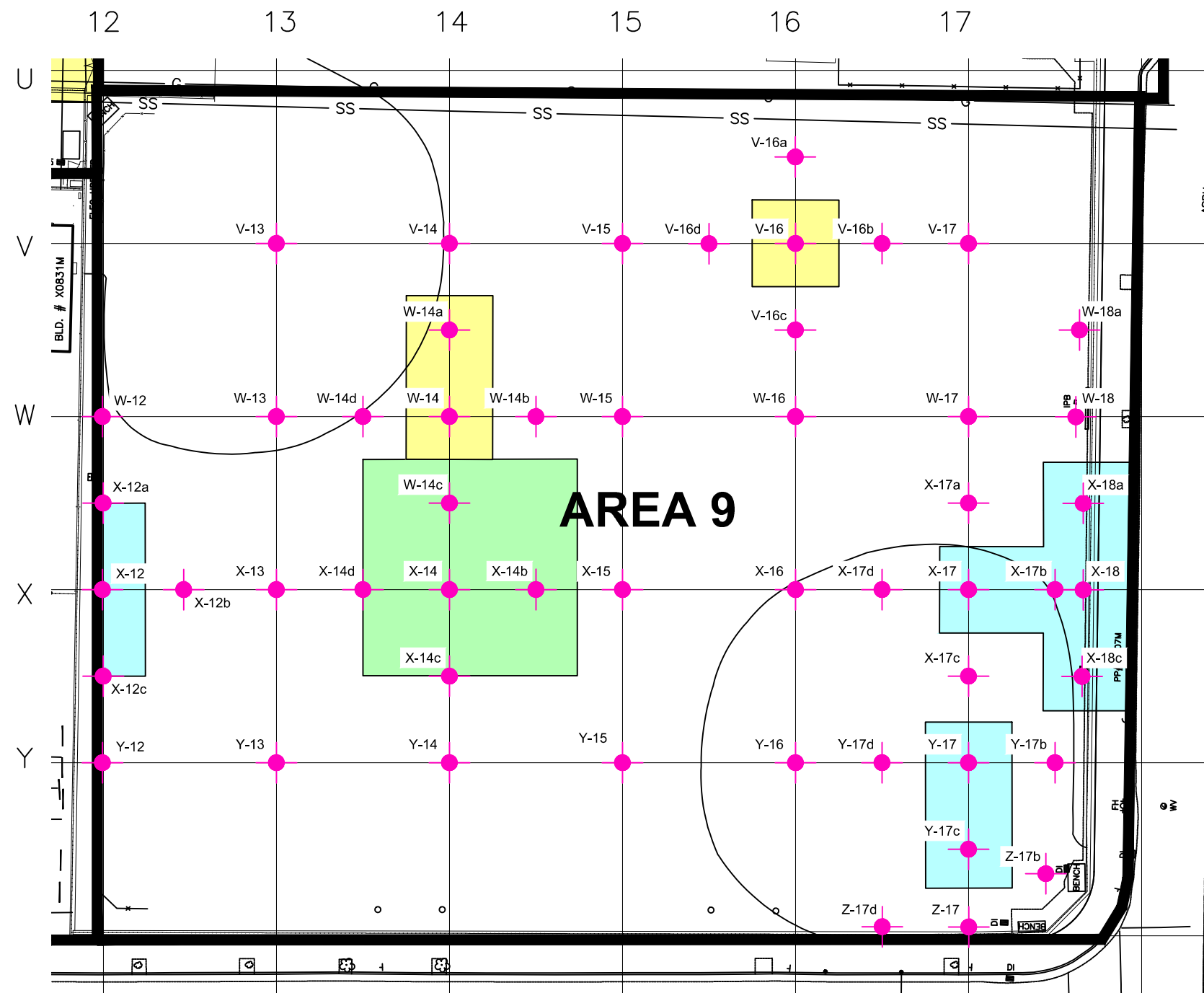


APPROXIMATE SCALE (FEET)

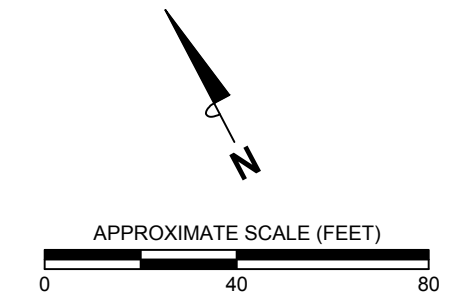



Source: Base map provided by Converse Consultants.

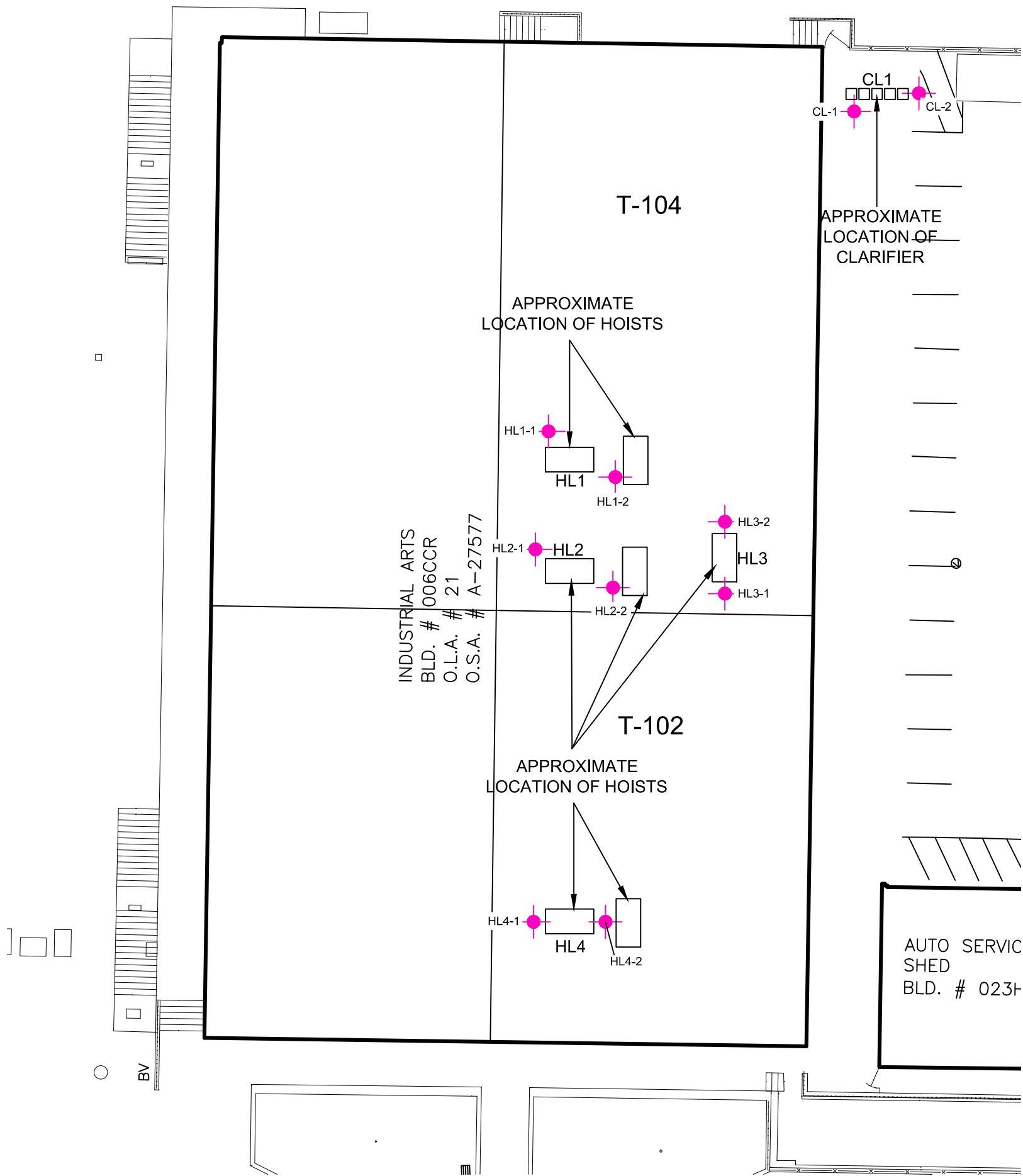
PROJECT: LAUSD ROOSEVELT HIGH SCHOOL 456 S. MATHEWS STREET LOS ANGELES, CALIFORNIA	
TITLE: AREA 9 SAMPLING LOCATIONS	
DRAWN BY: RMC	PROJ NO.: 265642.0000.0000
CHECKED BY: JM	FIGURE 8
APPROVED BY: JM	
DATE: 11/03/2016	
 <div>9685 Research Drive Irvine, CA 92618 Phone: 949.727.9336 www.trcsolutions.com</div>	
FILE NO.: LAUSD-Roosevelt-Sampling.dwg	



LEGEND

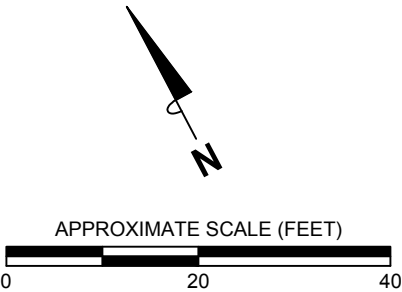


PROJECT:		LAUSD ROOSEVELT HIGH SCHOOL 456 S. MATHEWS STREET LOS ANGELES, CALIFORNIA	
TITLE:		AREA 9 PROPOSED EXCAVATION LOCATIONS	
DRAWN BY:	RMC	PROJ NO.:	265642.0000.0000
CHECKED BY:	JM	FIGURE 8A	
APPROVED BY:	JM		
DATE:	June 2017		
		9685 Research Drive Irvine, CA 92618 Phone: 949.727.9336 www.trcsolutions.com	
FILE NO.:		LAUSD-Roosevelt-Sampling.dwg	



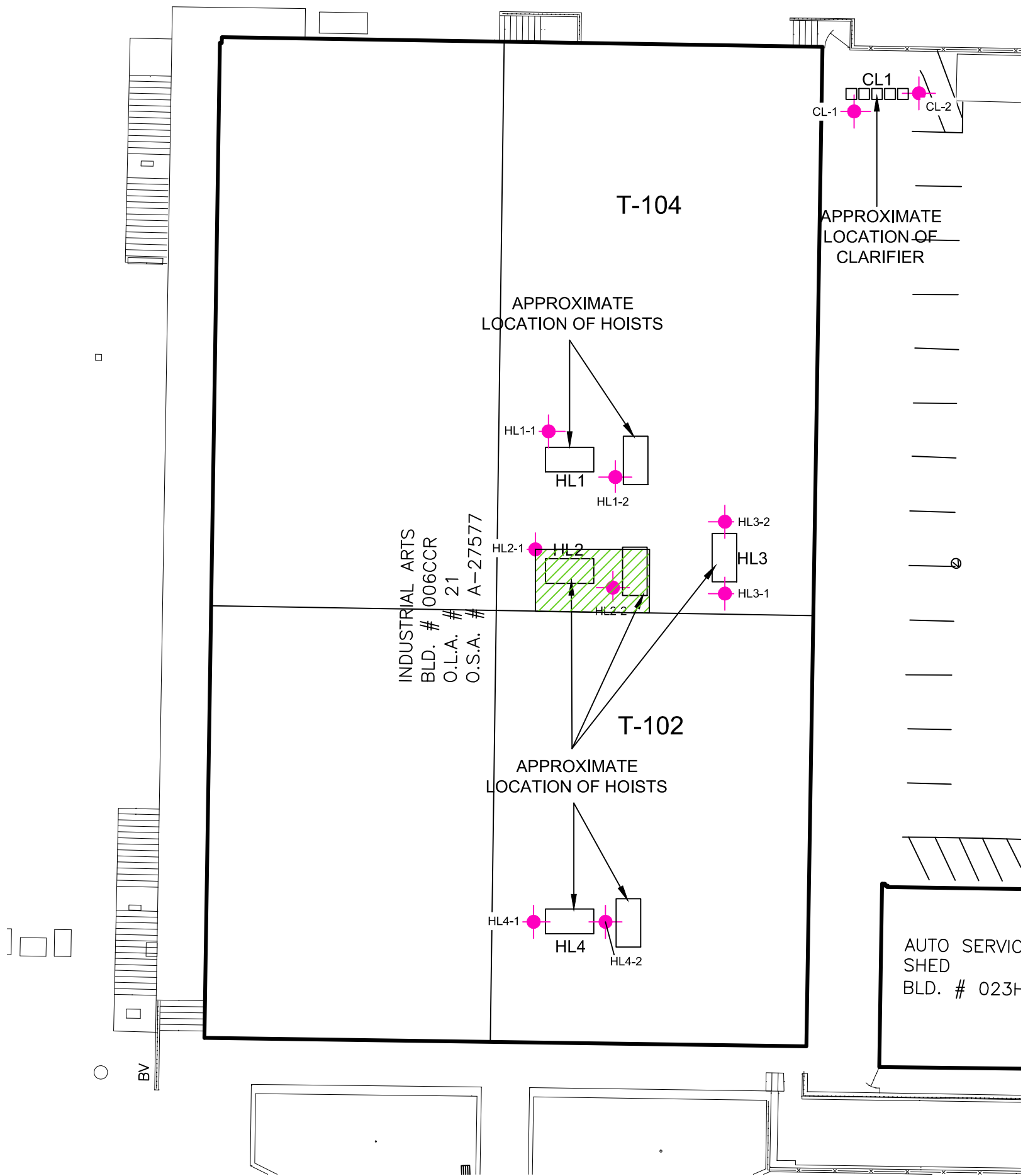
LEGEND

CL-1 Sample Location



Source: Base map provided by Converse Consultants.

PROJECT: LAUSD ROOSEVELT HIGH SCHOOL 456 S. MATHEWS STREET LOS ANGELES, CALIFORNIA		
TITLE: HYDRAULIC HOIST AND CLARIFIER SAMPLING LOCATIONS		
DRAWN BY:	RMC	PROJ NO.: 265642.0000.0000
CHECKED BY:	JM	FIGURE 9
APPROVED BY:	JM	
DATE:	11/03/2016	
TRC		9685 Research Drive Irvine, CA 92618 Phone: 949.727.9336 www.trcsolutions.com
FILE NO.:		LAUSD-Roosevelt-Sampling-Hoist.dwg



LEGEND

- CL-1 Sample Location
- Proposed Excavation Area for Hydrocarbons

PROJECT: LAUSD ROOSEVELT HIGH SCHOOL 456 S. MATHEWS STREET LOS ANGELES, CALIFORNIA		
TITLE: HYDRAULIC HOIST AND CLARIFIER PROPOSED EXCAVATION LOCATIONS		
DRAWN BY:	RMC	PROJ NO.: 265642.0000.0000
CHECKED BY:	JM	FIGURE 9A
APPROVED BY:	JM	
DATE:	11/03/2016	
TRC		9685 Research Drive Irvine, CA 92618 Phone: 949.727.9336 www.trcsolutions.com
FILE NO.:		LAUSD-Roosevelt-Sampling-Hoist.dwg

TABLES

Table 1
General Site Screening Results - Lead-Based Paint and Termiticide Sampling
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Depth (feet bgs)	Analyses and Analytical Methods												Comments	
			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A						PCBs EPA 8082		
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin			gamma-Chlordane
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
Screening Level:			12	5.0	80	5.0	5.0		2,000	1,900	NA	430	34	NA		
Area 2 - Physical Education Building and Courts																
PE-1-0.5	10/15/2016	0.5	5.7	---	8.4	---	---	---	---	---	---	---	---	---	---	
PE-1-2.5	10/15/2016	2.5	4.5	---	6.4	---	---	---	---	---	---	---	---	---	---	
PE-2-0.5	10/15/2016	0.5	3.2	---	13	---	---	---	---	---	---	---	---	---	---	
PE-2-2.5	10/15/2016	2.5	2.5	---	44	---	---	---	---	---	---	---	---	---	---	
PE-3-0.5	10/15/2016	0.5	2.9	---	55	---	---	---	---	---	---	---	---	---	---	
PE-3-0.5 DUP	10/15/2016	0.5	3.0	---	63	---	---	---	---	---	---	---	---	---	---	
PE-3-2.5	10/15/2016	2.5	1.8	---	92	5.5	ND<0.25	---	---	---	---	---	---	---	---	
PE-3-3.5	3/25/2017	3.5	---	---	110	7.4	0.044 J	---	---	---	---	---	---	---	---	
PE-3b-0.5	11/23/2016	0.5	---	---	22	---	---	---	---	---	---	---	---	---	---	
PE-3b-2.5	11/23/2016	2.5	---	---	86	5.8	ND<0.25	---	---	---	---	---	---	---	---	
PE-3b-3.5	11/23/2016	3.5	---	---	32	---	---	---	---	---	---	---	---	---	---	
PE-3b1-0.5	3/25/2017	0.5	---	---	6.0	---	---	---	---	---	---	---	---	---	---	
PE-3b1-2.5	3/25/2017	2.5	---	---	87	3.4	---	---	---	---	---	---	---	---	---	
PE-3b1-3.5	3/25/2017	3.5	---	---	40	---	---	---	---	---	---	---	---	---	---	
PE-3c-0.5	11/23/2016	0.5	---	---	3.2	---	---	---	---	---	---	---	---	---	---	
PE-3c-2.5	11/23/2016	2.5	---	---	2.5	---	---	---	---	---	---	---	---	---	---	
PE-3c-3.5	11/23/2016	3.5	---	---	2.7	---	---	---	---	---	---	---	---	---	---	
PE-3c1-0.5	3/25/2017	0.5	---	---	9.0	---	---	---	---	---	---	---	---	---	---	
PE-3c1-2.5	3/25/2017	2.5	---	---	21	---	---	---	---	---	---	---	---	---	---	
PE-3c1-3.5	3/25/2017	3.5	---	---	7.6	---	---	---	---	---	---	---	---	---	---	
PE-3d-0.5	11/23/2016	0.5	---	---	16	---	---	---	---	---	---	---	---	---	---	
PE-3d-0.5 DUP	11/23/2016	0.5	---	---	19	---	---	---	---	---	---	---	---	---	---	
PE-3d-2.5	11/23/2016	2.5	---	---	62	---	---	---	---	---	---	---	---	---	---	
PE-3d-3.5	11/23/2016	3.5	---	---	64	---	---	---	---	---	---	---	---	---	---	
PE-4-0.5	10/15/2016	0.5	2.2	---	17	---	---	---	---	---	---	---	---	---	---	
PE-4-2.5	10/15/2016	2.5	3.0	---	24	---	---	---	---	---	---	---	---	---	---	
PE-5	N/A	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Removed from program
B-6-0.5	10/23/2016	0.5	2.2	---	22	---	---	---	---	---	---	---	---	---	---	
B-6-2.5	10/23/2016	2.5	1.9	---	110	4.7	---	---	---	---	---	---	---	---	---	
B-6-3.5	6/14/2017	3.5	---	---	36	---	---	---	---	---	---	---	---	---	---	
B-6-3.5 DUP	6/14/2017	3.5	---	---	20	---	---	---	---	---	---	---	---	---	---	
B-6-4.5	6/14/2017	4.5	---	---	3.7	---	---	---	---	---	---	---	---	---	---	
B-6b-0.5	11/23/2016	0.5	---	---	15	---	---	---	---	---	---	---	---	---	---	
B-6b-2.5	11/23/2016	2.5	---	---	280	16	0.15 J	---	---	---	---	---	---	---	---	
B-6b-3.5	11/23/2016	3.5	---	---	5.3	---	---	---	---	---	---	---	---	---	---	
B-6c-0.5	11/23/2016	0.5	---	---	85	2.6	---	---	---	---	---	---	---	---	---	
B-6c-2.5	11/23/2016	2.5	---	---	35	---	---	---	---	---	---	---	---	---	---	
B-6c-2.5 DUP	11/23/2016	2.5	---	---	26	---	---	---	---	---	---	---	---	---	---	
B-6c-3.5	11/23/2016	3.5	---	---	190	3.9	---	---	---	---	---	---	---	---	---	
B-6c-4.5	6/14/2017	4.5	---	---	25	---	---	---	---	---	---	---	---	---	---	
B-6d-0.5	11/23/2016	0.5	---	---	14	---	---	---	---	---	---	---	---	---	---	
B-6d-2.5	11/23/2016	2.5	---	---	18	---	---	---	---	---	---	---	---	---	---	
B-6d-3.5	11/23/2016	3.5	---	---	58	---	---	---	---	---	---	---	---	---	---	

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		Units:	mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
B-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Removed from program
B-7-0.5	3/25/2017	0.5	---	---	15	---	---	---	---	---	---	---	---	---	---	
B-7-2.5	3/25/2017	2.5	---	---	5.3	---	---	---	---	---	---	---	---	---	---	
B-7-3.5	3/25/2017	3.5	---	---	9.3	---	---	---	---	---	---	---	---	---	---	
B-7-4.5	3/25/2017	4.5	---	---	4.0	---	---	---	---	---	---	---	---	---	---	
B-8-0.5	10/23/2016	0.5	1.6	---	10	---	---	---	---	---	---	---	---	---	---	
B-8-2.5	10/23/2016	2.5	1.7	---	5.5	---	---	---	---	---	---	---	---	---	---	
Composite A11	N/A	0.5	---	---	---	---	---	ND<2.0	0.34J	0.48J	ND<1.0	1.2J	0.46J	ND<1.0	---	Composite of B-6-0.5 and B-8-0.5
B-9-0.5	10/8/2016	0.5	3.7	---	20	---	---	---	---	---	---	---	---	---	---	
B-9-2.5	10/8/2016	2.5	1.5	---	30	---	---	---	---	---	---	---	---	---	---	
B-10-0.5	10/8/2016	0.5	3.4	---	43	---	---	---	---	---	---	---	---	---	---	
B-10-0.5 DUP	10/8/2016	0.5	5.0	---	55	---	---	---	---	---	---	---	---	---	---	
B-10-2.5	10/8/2016	2.5	3.1	---	65	---	---	---	---	---	---	---	---	---	---	
B-11-0.5	10/8/2016	0.5	3.1	---	39	---	---	---	---	---	---	---	---	---	---	
B-11-2.5	10/8/2016	2.5	1.9	---	5.4	---	---	---	---	---	---	---	---	---	---	
B-12-0.5	10/15/2016	0.5	1.8	---	3.6	---	---	---	---	---	---	---	---	---	---	
B-12-2.5	10/15/2016	2.5	1.7	---	5.1	---	---	---	---	---	---	---	---	---	---	
Composite A1	N/A	0.5	---	---	---	---	---	ND<2.0	3.2	0.88J	ND<1.0	1.5J	ND<2.0	ND<1.0	ND<16	Composite of B-9-0.5, B-10-0.5, B-11-0.5, and B-12-0.5
C-6-0.5	10/23/2016	0.5	1.6	---	11	---	---	---	---	---	---	---	---	---	---	
C-6-2.5	10/23/2016	2.5	2.2	---	8.6	---	---	---	---	---	---	---	---	---	---	
C-6-3.5	6/14/2017	3.5	---	---	16	---	---	---	---	---	---	---	---	---	---	
C-6-4.5	3/25/2017	4.5	---	---	57	---	---	---	---	---	---	---	---	---	---	
C-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Removed from program
C-7-0.5	3/25/2017	0.5	---	---	23	---	---	---	---	---	---	---	---	---	---	
C-7-2.5	3/25/2017	2.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
C-7-3.5	3/25/2017	3.5	---	---	16	---	---	---	---	---	---	---	---	---	---	
C-7-4.5	3/25/2017	4.5	---	---	12	---	---	---	---	---	---	---	---	---	---	
C-8-0.5	10/23/2016	0.5	3.1	---	22	---	---	---	---	---	---	---	---	---	---	
C-8-2.5	10/23/2016	2.5	2.0	---	31	---	---	---	---	---	---	---	---	---	---	
C-8-2.5 DUP	10/23/2016	2.5	2.5	---	34	---	---	---	---	---	---	---	---	---	---	
Composite A12	N/A	0.5	---	---	---	---	---	0.36J	1.1J	ND<2.0	ND<1.0	1.9J	ND<2.0	0.23J	---	Composite of C-6-0.5 and C-8-0.5
C-9-0.5	10/8/2016	0.5	3.4	---	12	---	---	---	---	---	---	---	---	---	---	
C-9-2.5	10/8/2016	2.5	1.4	---	8.6	---	---	---	---	---	---	---	---	---	---	
C-10-0.5	10/8/2016	0.5	1.7	---	23	---	---	---	---	---	---	---	---	---	---	
C-10-2.5	10/8/2016	2.5	1.2	---	9.7	---	---	---	---	---	---	---	---	---	---	
C-11-0.5	10/8/2016	0.5	3.0	---	18	---	---	---	---	---	---	---	---	---	---	
C-11-2.5	10/8/2016	2.5	1.4	---	14	---	---	---	---	---	---	---	---	---	---	
C-12-0.5	10/15/2016	0.5	ND<2.0	---	120	3.3	---	---	---	---	---	---	---	---	---	
C-12-2.5	10/15/2016	2.5	1.5	---	7.2	---	---	---	---	---	---	---	---	---	---	
C-12a-0.5	11/23/2016	0.5	---	---	21	---	---	---	---	---	---	---	---	---	---	
C-12c-0.5	11/23/2016	0.5	---	---	16	---	---	---	---	---	---	---	---	---	---	
C-12d-0.5	11/23/2016	0.5	---	---	9.2	---	---	---	---	---	---	---	---	---	---	
Composite A2	N/A	0.5	---	---	---	---	---	ND<2.0	1.1J	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of C-9-0.5, C-10-0.5, C-11-0.5, and C-12-0.5
D-6-0.5	10/23/2016	0.5	2.9	---	18	---	---	---	---	---	---	---	---	---	---	

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
D-6-2.5	10/23/2016	2.5	2.6	---	20	---	---	---	---	---	---	---	---	---	---	
D-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Removed from program
D-8-0.5	10/23/2016	0.5	2.7	---	15	---	---	---	---	---	---	---	---	---	---	
D-8-0.5 DUP	10/23/2016	0.5	2.9	---	18	---	---	---	---	---	---	---	---	---	---	
D-8-2.5	10/23/2016	2.5	2.3	---	12	---	---	---	---	---	---	---	---	---	---	
Composite A13	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of D-6-0.5 and D-8-0.5
D-9-0.5	10/8/2016	0.5	3.4	---	28	---	---	---	---	---	---	---	---	---	---	
D-9-2.5	10/8/2016	2.5	2.6	---	28	---	---	---	---	---	---	---	---	---	---	
D-9-2.5 DUP	10/8/2016	2.5	4.3	---	34	---	---	---	---	---	---	---	---	---	---	
D-10-0.5	10/8/2016	0.5	2.9	---	25	---	---	---	---	---	---	---	---	---	---	
D-10-2.5	10/8/2016	2.5	3.3	---	56	---	---	---	---	---	---	---	---	---	---	
D-11-0.5	10/8/2016	0.5	4.1	---	18	---	---	---	---	---	---	---	---	---	---	
D-11-2.5	10/8/2016	2.5	1.6	---	41	---	---	---	---	---	---	---	---	---	---	
D-12-0.5	10/15/2016	0.5	3.8	---	21	---	---	---	---	---	---	---	---	---	---	
D-12-2.5	10/15/2016	2.5	2.8	---	38	---	---	---	---	---	---	---	---	---	---	
D-12-2.5 DUP	10/15/2016	2.5	1.8	---	16	---	---	---	---	---	---	---	---	---	---	
Composite A3	N/A	0.5	---	---	---	---	---	1.2J	18	3.4	ND<1.0	3.0J	0.44J	0.31J	---	Composite of D-9-0.5, D-10-0.5, D-11-0.5, and D-12-0.5
E-6-0.5	10/23/2016	0.5	2.6	---	28	---	---	---	---	---	---	---	---	---	---	
E-6-2.5	10/23/2016	2.5	4.2	---	26	---	---	---	---	---	---	---	---	---	---	
E-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Removed from program
E-8-0.5	10/23/2016	0.5	3.1	---	20	---	---	---	---	---	---	---	---	---	---	
E-8-2.5	10/23/2016	2.5	1.8	---	7.9	---	---	---	---	---	---	---	---	---	---	
Composite A14	N/A	0.5	---	---	---	---	---	ND<2.0	0.20J	ND<2.0	ND<1.0	1.5J	ND<2.0	ND<1.0	---	Composite of E-6-0.5 and E-8-0.5
E-9-0.5	10/8/2016	0.5	2.9	---	24	---	---	---	---	---	---	---	---	---	---	
E-9-2.5	10/8/2016	2.5	3.5	---	16	---	---	---	---	---	---	---	---	---	---	
E-10-0.5	10/8/2016	0.5	3.5	---	18	---	---	---	---	---	---	---	---	---	---	
E-10-2.5	10/8/2016	2.5	3.1	---	16	---	---	---	---	---	---	---	---	---	---	
E-11-0.5	10/8/2016	0.5	2.6	---	26	---	---	---	---	---	---	---	---	---	---	
E-11-2.5	10/8/2016	2.5	3.6	---	24	---	---	---	---	---	---	---	---	---	---	
E-12-0.5	10/15/2016	0.5	ND<2.0	---	5.7	---	---	---	---	---	---	---	---	---	---	
E-12-0.5 DUP	10/15/2016	0.5	1.6	---	37	---	---	---	---	---	---	---	---	---	---	
E-12-2.5	10/15/2016	2.5	0.94J	---	22	---	---	---	---	---	---	---	---	---	---	
Composite A4	N/A	0.5	---	---	---	---	---	0.53J	14	1.5J	0.45J	4.6J	0.91J	0.41J	---	Composite of E-9-0.5, E-10-0.5, E-11-0.5, and E-12-0.5
F-6-0.5	10/23/2016	0.5	2.0	---	19	---	---	---	---	---	---	---	---	---	---	
F-6-2.5	10/23/2016	2.5	2.7	---	21	---	---	---	---	---	---	---	---	---	---	
F-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Removed from program
F-8-0.5	10/23/2016	0.5	4.5	---	9.2	---	---	---	---	---	---	---	---	---	---	
F-8-2.5	10/23/2016	2.5	1.9	---	15	---	---	---	---	---	---	---	---	---	---	
Composite A15	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of F-6-0.5 and F-8-0.5
Composite A15 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	0.21J	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of F-6-0.5 and F-8-0.5
F-9-0.5	10/8/2016	0.5	3.5	---	24	---	---	---	---	---	---	---	---	---	---	
F-9-0.5 DUP	10/8/2016	0.5	3.7	---	23	---	---	---	---	---	---	---	---	---	---	
F-9-2.5	10/8/2016	2.5	3.2	---	34	---	---	---	---	---	---	---	---	---	---	
F-10-0.5	10/8/2016	0.5	3.0	---	34	---	---	---	---	---	---	---	---	---	---	



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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
F-10-2.5	10/8/2016	2.5	1.4	---	43	---	---	---	---	---	---	---	---	---	---	
F-11-0.5	10/8/2016	0.5	2.8	---	23	---	---	---	---	---	---	---	---	---	---	
F-11-2.5	10/8/2016	2.5	0.97J	---	7.2	---	---	---	---	---	---	---	---	---	---	
F-12-0.5	10/15/2016	0.5	ND<2.0	---	15	---	---	---	---	---	---	---	---	---	---	
F-12-2.5	10/15/2016	2.5	1.8	---	5.5	---	---	---	---	---	---	---	---	---	---	
Composite A5	N/A	0.5	---	---	---	---	---	0.32J	9.3	0.70J	0.33J	4.2J	7.8	0.46J	---	Composite of F-9-0.5, F-10-0.5, F-11-0.5, and F-12-0.5
G-11-0.5	10/15/2016	0.5	2.9	---	13	---	---	---	---	---	---	---	---	---	---	
G-11-2.5	10/15/2016	2.5	4.7	---	5.7	---	---	---	---	---	---	---	---	---	---	
G-12-0.5	10/15/2016	0.5	ND<5.0	---	23	---	---	---	---	---	---	---	---	---	---	
G-12-2.5	10/15/2016	2.5	1.1	---	4.3	---	---	---	---	---	---	---	---	---	---	
Composite A6	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of G-11-0.5 and G-12-0.5
H-1-0.5	10/15/2016	0.5	4.3	---	8.4	---	---	---	---	---	---	---	---	---	---	
H-1-2.5	10/15/2016	2.5	5.0	---	6.7	---	---	---	---	---	---	---	---	---	---	
H-1c-0.5	6/14/2017	0.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
H-1c-2.5	6/14/2017	2.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
H-1c-3.5	6/14/2017	3.5	---	---	7.6	---	---	---	---	---	---	---	---	---	---	
H-1c1-0.5	6/14/2017	0.5	---	---	15	---	---	---	---	---	---	---	---	---	---	
H-1c1-2.5	6/14/2017	2.5	---	---	7.6	---	---	---	---	---	---	---	---	---	---	
H-1c1-3.5	6/14/2017	3.5	---	---	3.7	---	---	---	---	---	---	---	---	---	---	
H-2-0.5	10/15/2016	0.5	5.3	---	8.9	---	---	---	---	---	---	---	---	---	---	
H-2-2.5	10/15/2016	2.5	5.6	---	230	3.3	---	---	---	---	---	---	---	---	---	
H-2-3.5	3/25/2017	3.5	---	---	3.8	---	---	---	---	---	---	---	---	---	---	
H-2a-0.5	11/21/2016	0.5	---	---	5.2	---	---	---	---	---	---	---	---	---	---	
H-2a-2.5	11/21/2016	2.5	---	---	20	---	---	---	---	---	---	---	---	---	---	
H-2a-3.5	11/21/2016	3.5	---	---	6.9	---	---	---	---	---	---	---	---	---	---	
H-2b-0.5	11/21/2016	0.5	---	---	37	---	---	---	---	---	---	---	---	---	---	
H-2b-2.5	11/21/2016	2.5	---	---	9.0	---	---	---	---	---	---	---	---	---	---	
H-2b-3.5	11/21/2016	3.5	---	---	7.2	---	---	---	---	---	---	---	---	---	---	
H-2b1-0.5	3/25/2017	0.5	---	---	4.2	---	---	---	---	---	---	---	---	---	---	
H-2b1-2.5	3/25/2017	2.5	---	---	4.8	---	---	---	---	---	---	---	---	---	---	
H-2b1-3.5	3/25/2017	3.5	---	---	5.2	---	---	---	---	---	---	---	---	---	---	
H-2c-0.5	11/21/2016	0.5	---	---	81	4.1	---	---	---	---	---	---	---	---	---	
H-2c-2.5	11/21/2016	2.5	---	---	7.8	---	---	---	---	---	---	---	---	---	---	
H-2c-2.5 DUP	11/21/2016	2.5	---	---	8.9	---	---	---	---	---	---	---	---	---	---	
H-2c-3.5	11/21/2016	3.5	---	---	5.7	---	---	---	---	---	---	---	---	---	---	
H-2c1-0.5	3/25/2017	0.5	---	---	71	---	---	---	---	---	---	---	---	---	---	
H-2c1-2.5	3/25/2017	2.5	---	---	3.4	---	---	---	---	---	---	---	---	---	---	
H-2c1-3.5	3/25/2017	3.5	---	---	4.0	---	---	---	---	---	---	---	---	---	---	
H-2d-0.5	11/21/2016	0.5	---	---	5.9	---	---	---	---	---	---	---	---	---	---	
H-2d-2.5	11/21/2016	2.5	---	---	29	---	---	---	---	---	---	---	---	---	---	
H-2d-3.5	11/21/2016	3.5	---	---	8.6	---	---	---	---	---	---	---	---	---	---	
H-2d-3.5 DUP	11/21/2016	3.5	---	---	9.9	---	---	---	---	---	---	---	---	---	---	
H-2d1-0.5	3/25/2017	0.5	---	---	92	2.5	---	---	---	---	---	---	---	---	---	
H-2d1-2.5	3/25/2017	2.5	---	---	4.0	---	---	---	---	---	---	---	---	---	---	



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			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
H-2d1-3.5	3/25/2017	3.5	---	---	4.1	---	---	---	---	---	---	---	---	---	---	
H-2d1-3.5 DUP	3/25/2017	3.5	---	---	5.4	---	---	---	---	---	---	---	---	---	---	
H-3-0.5	10/15/2016	0.5	5.5	---	17	---	---	---	---	---	---	---	---	---	---	
H-3-0.5 DUP	10/15/2016	0.5	4.6	---	14	---	---	---	---	---	---	---	---	---	---	
H-3-2.5	10/15/2016	2.5	4.9	---	4.7	---	---	---	---	---	---	---	---	---	---	
Composite A9	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	0.96J	ND<2.0	ND<1.0	---	Composite of H-1-0.5, H-2-0.5, and H-3-0.5
H-4-0.5	10/15/2016	0.5	3.3	---	8.5	---	---	---	---	---	---	---	---	---	---	
H-4-2.5	10/15/2016	2.5	2.1	---	7.3	---	---	---	---	---	---	---	---	---	---	
H-5-0.5	10/15/2016	0.5	2.4	---	3.9	---	---	---	---	---	---	---	---	---	---	
H-5-2.5	10/15/2016	2.5	2.4	---	1.7	---	---	---	---	---	---	---	---	---	---	
H-5-2.5 DUP	10/15/2016	2.5	3.4	---	18	---	---	---	---	---	---	---	---	---	---	
Composite A10	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	0.29J	2.7J	ND<2.0	0.28J	---	Composite of H-4-0.5 and H-5-0.5
Composite A10 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	0.26J	3.4J	ND<2.0	0.34J	---	Composite of H-4-0.5 and H-5-0.5
H-11-0.5	10/15/2016	0.5	2.6	---	14	---	---	---	---	---	---	---	---	---	---	
H-11-2.5	10/15/2016	2.5	4.4	---	5.6	---	---	---	---	---	---	---	---	---	---	
H-12-0.5	10/15/2016	0.5	ND<2.0	---	4.7	---	---	---	---	---	---	---	---	---	---	
H-12-2.5	10/15/2016	2.5	1.0J	---	3.4	---	---	---	---	---	---	---	---	---	---	
Composite A7	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	0.24J	2.9J	ND<2.0	0.29J	---	Composite of H-11-0.5 and H-12-0.5
I-11-0.5	10/15/2016	0.5	4.6	---	15	---	---	---	---	---	---	---	---	---	---	
I-11-2.5	10/15/2016	2.5	5.3	---	5.1	---	---	---	---	---	---	---	---	---	---	
I-12-0.5	10/15/2016	0.5	1.0J	---	2.6	---	---	---	---	---	---	---	---	---	---	
I-12-2.5	10/15/2016	2.5	0.77J	---	2.7	---	---	---	---	---	---	---	---	---	---	
Composite A8	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<16	Composite of I-11-0.5 and I-12-0.5
Area 3 - Athletic Field and Bleachers																
B-13-0.5	10/9/2016	0.5	41	---	96	6.1	0.029 J	---	---	---	---	---	---	---	---	
B-13-2.5	10/9/2016	2.5	2.4	---	16	---	---	---	---	---	---	---	---	---	---	
B-13-2.5 DUP	10/9/2016	2.5	4.9	---	19	---	---	---	---	---	---	---	---	---	---	
B-13a-0.5	11/22/2016	0.5	17	---	96	6.3	0.11 J	---	---	---	---	---	---	---	---	
B-13a-2.5	11/22/2016	2.5	12	---	95	6.8	0.050	---	---	---	---	---	---	---	---	
B-13a-3.5	3/25/2017	3.5	---	---	82	2.6	---	---	---	---	---	---	---	---	---	
B-13b-0.5	11/22/2016	0.5	14	---	27	---	---	---	---	---	---	---	---	---	---	
B-13b-2.5	11/22/2016	2.5	7.5	---	---	---	---	---	---	---	---	---	---	---	---	
B-13c-0.5	11/22/2016	0.5	7.8	---	99	3.6	---	---	---	---	---	---	---	---	---	
B-13c-2.5	11/22/2016	2.5	---	---	8.8	---	---	---	---	---	---	---	---	---	---	
B-13d-0.5	11/22/2016	0.5	1.9	---	17	---	---	---	---	---	---	---	---	---	---	
B-13d-2.5	11/22/2016	2.5	1.2	---	---	---	---	---	---	---	---	---	---	---	---	
B-14-0.5	10/9/2016	0.5	19	---	62	---	---	---	---	---	---	---	---	---	---	
B-14-2.5	10/9/2016	2.5	2.9	---	58	---	---	---	---	---	---	---	---	---	---	
B-14a-0.5	11/22/2016	0.5	12	---	---	---	---	---	---	---	---	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	0.5	15	---	---	---	---	---	---	---	---	---	---	---	---	
B-14a-2.5	11/22/2016	2.5	6.1	---	---	---	---	---	---	---	---	---	---	---	---	
B-14b-0.5	11/22/2016	0.5	19	---	---	---	---	---	---	---	---	---	---	---	---	
B-14b-2.5	11/22/2016	2.5	4.5	---	---	---	---	---	---	---	---	---	---	---	---	

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
B-14c-0.5	11/22/2016	0.5	3.5	---	---	---	---	---	---	---	---	---	---	---	---	
B-15-0.5	10/9/2016	0.5	16	---	69	---	---	---	---	---	---	---	---	---	---	
B-15-2.5	10/9/2016	2.5	4.0	---	33	---	---	---	---	---	---	---	---	---	---	
B-15a-0.5	11/22/2016	0.5	17	---	---	---	---	---	---	---	---	---	---	---	---	
B-15a-2.5	11/22/2016	2.5	5.6	---	---	---	---	---	---	---	---	---	---	---	---	
B-15b-0.5	11/22/2016	0.5	5.2	---	180	2.8	---	---	---	---	---	---	---	---	---	
B-15b-2.5	11/22/2016	2.5	---	---	32	---	---	---	---	---	---	---	---	---	---	
B-15c-0.5	11/22/2016	0.5	3.1	---	---	---	---	---	---	---	---	---	---	---	---	
Composite B1	N/A	0.5	---	---	---	---	---	0.70J	ND<2.0	0.16J	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of B-13-0.5, B-14-0.5, and B-15-0.5
B-16-0.5	10/9/2016	0.5	13	---	81	3.7	---	---	---	---	---	---	---	---	---	
B-16-0.5 DUP	10/9/2016	0.5	15	---	70	---	---	---	---	---	---	---	---	---	---	
B-16-2.5	10/9/2016	2.5	2.7	---	76	---	---	---	---	---	---	---	---	---	---	
B-16a-0.5	11/22/2016	0.5	15	---	49	---	---	---	---	---	---	---	---	---	---	
B-16a-0.5 DUP	11/22/2016	0.5	27	---	72	---	---	---	---	---	---	---	---	---	---	
B-16a-2.5	11/22/2016	2.5	22	---	---	---	---	---	---	---	---	---	---	---	---	
B-16a-3.5	3/25/2017	3.5	4.4	---	---	---	---	---	---	---	---	---	---	---	---	
B-16a-3.5 DUP	3/25/2017	3.5	4.2	---	---	---	---	---	---	---	---	---	---	---	---	
B-16b-0.5	11/22/2016	0.5	3.1	---	69	---	---	---	---	---	---	---	---	---	---	
B-16c-0.5	11/22/2016	0.5	4.7	---	13	---	---	---	---	---	---	---	---	---	---	
B-16c-0.5 DUP	11/22/2016	0.5	6.4	---	22	---	---	---	---	---	---	---	---	---	---	
B-17-0.5	10/9/2016	0.5	2.9	---	5.2	---	---	---	---	---	---	---	---	---	---	
B-17-2.5	10/9/2016	2.5	12	---	53	---	---	---	---	---	---	---	---	---	---	
Composite B2	N/A	0.5	---	---	---	---	---	0.23J	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of B-16-0.5 and B-17-0.5
C-13-0.5	10/9/2016	0.5	2.8	---	150	11	0.095 J	---	---	---	---	---	---	---	---	
C-13-2.5	10/9/2016	2.5	1.6	---	15	---	---	---	---	---	---	---	---	---	---	
C-13b-0.5	11/22/2016	0.5	---	---	37	---	---	---	---	---	---	---	---	---	---	
C-13c-0.5	11/22/2016	0.5	---	---	110	3.0	---	---	---	---	---	---	---	---	---	
C-13c-2.5	11/22/2016	2.5	---	---	26	---	---	---	---	---	---	---	---	---	---	
C-13d-0.5	11/22/2016	0.5	---	---	48	---	---	---	---	---	---	---	---	---	---	
C-14-0.5	10/9/2016	0.5	6.5	---	44	---	---	---	---	---	---	---	---	---	---	
C-14-2.5	10/9/2016	2.5	1.6	---	14	---	---	---	---	---	---	---	---	---	---	
C-15-0.5	10/9/2016	0.5	5.8	---	71	---	---	---	---	---	---	---	---	---	---	
C-15-2.5	10/9/2016	2.5	3.0	---	28	---	---	---	---	---	---	---	---	---	---	
Composite B3	N/A	0.5	---	---	---	---	---	0.42J	0.66J	0.63J	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of C-13-0.5, C-14-0.5, and C-15-0.5
C-16-0.5	10/9/2016	0.5	4.7	---	70	---	---	---	---	---	---	---	---	---	---	
C-16-0.5 DUP	10/9/2016	0.5	2.4	---	43	---	---	---	---	---	---	---	---	---	---	
C-16-2.5	10/9/2016	2.5	2.7	---	29	---	---	---	---	---	---	---	---	---	---	
C-17-0.5	10/9/2016	0.5	3.0	---	85	4.7	---	---	---	---	---	---	---	---	---	
C-17-2.5	10/9/2016	2.5	2.8	---	22	---	---	---	---	---	---	---	---	---	---	
C-17a-0.5	11/22/2016	0.5	---	---	55	---	---	---	---	---	---	---	---	---	---	
C-17b-0.5	11/22/2016	0.5	---	---	99	6.6	0.036 J	---	---	---	---	---	---	---	---	
C-17b-2.5	11/22/2016	2.5	---	---	65	---	---	---	---	---	---	---	---	---	---	
C-17c-0.5	11/22/2016	0.5	---	---	42	---	---	---	---	---	---	---	---	---	---	
C-17d-0.5	11/22/2016	0.5	---	---	51	---	---	---	---	---	---	---	---	---	---	
C-18-0.5	3/25/2017	0.5	---	---	53	---	---	---	---	---	---	---	---	---	---	

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
C-18-2.5	3/25/2017	2.5	---	---	6.9	---	---	---	---	---	---	---	---	---	---	
C-18a-0.5	3/25/2017	0.5	---	---	47	---	---	---	---	---	---	---	---	---	---	
C-18a-0.5 DUP	3/25/2017	0.5	---	---	42	---	---	---	---	---	---	---	---	---	---	
C-18a-2.5	3/25/2017	2.5	---	---	5.3	---	---	---	---	---	---	---	---	---	---	
C-18c-0.5	3/25/2017	0.5	---	---	17	---	---	---	---	---	---	---	---	---	---	
C-18c-2.5	3/25/2017	2.5	---	---	4.5	---	---	---	---	---	---	---	---	---	---	
Composite B4	N/A	0.5	---	---	---	---	---	0.34J	0.27J	0.33J	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of C-16-0.5 and C-17-0.5
D-13-0.5	10/8/2016	0.5	2.6	---	43	---	---	---	---	---	---	---	---	---	---	
D-13-2.5	10/8/2016	2.5	1.8	---	18	---	---	---	---	---	---	---	---	---	---	
D-14-0.5	10/9/2016	0.5	3.8	---	50	---	---	---	---	---	---	---	---	---	---	
D-14-2.5	10/9/2016	2.5	3.7	---	16	---	---	---	---	---	---	---	---	---	---	
D-14-2.5 DUP	10/9/2016	2.5	2.7	---	1.9	---	---	---	---	---	---	---	---	---	---	
D-15-0.5	10/9/2016	0.5	2.7	---	14	---	---	---	---	---	---	---	---	---	---	
D-15-2.5	10/9/2016	2.5	2.1	---	29	---	---	---	---	---	---	---	---	---	---	
Composite B5	N/A	0.5	---	---	---	---	---	0.34J	0.79J	0.45J	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of D-13-0.5, D-14-0.5, and D-15-0.5
D-16-0.5	10/9/2016	0.5	4.8	---	34	---	---	---	---	---	---	---	---	---	---	
D-16-2.5	10/9/2016	2.5	1.9	---	33	---	---	---	---	---	---	---	---	---	---	
D-17-0.5	10/9/2016	0.5	3.9	---	76	---	---	---	---	---	---	---	---	---	---	
D-17-2.5	10/9/2016	2.5	2.8	---	45	---	---	---	---	---	---	---	---	---	---	
Composite B6	N/A	0.5	---	---	---	---	---	0.35J	0.88J	0.51J	ND<1.0	3.5J	ND<2.0	ND<1.0	---	Composite of D-16-0.5 and D-17-0.5
E-13-0.5	10/8/2016	0.5	1.7	---	40	---	---	---	---	---	---	---	---	---	---	
E-13-2.5	10/8/2016	2.5	0.88J	---	3.4	---	---	---	---	---	---	---	---	---	---	
E-14-0.5	10/9/2016	0.5	3.5	---	27	---	---	---	---	---	---	---	---	---	---	
E-14-2.5	10/9/2016	2.5	3.0	---	14	---	---	---	---	---	---	---	---	---	---	
E-14-2.5 DUP	10/9/2016	2.5	3.5	---	15	---	---	---	---	---	---	---	---	---	---	
E-15-0.5	10/9/2016	0.5	3.1	---	20	---	---	---	---	---	---	---	---	---	---	
E-15-2.5	10/9/2016	2.5	2.2	---	8.6	---	---	---	---	---	---	---	---	---	---	
Composite B7	N/A	0.5	---	---	---	---	---	ND<2.0	0.91J	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of E-13-0.5, E-14-0.5, and E-15-0.5
E-16-0.5	10/9/2016	0.5	4.3	---	37	---	---	---	---	---	---	---	---	---	---	
E-16-2.5	10/9/2016	2.5	0.93J	---	49	---	---	---	---	---	---	---	---	---	---	
E-17-0.5	10/9/2016	0.5	4.7	---	68	---	---	---	---	---	---	---	---	---	---	
E-17-2.5	10/9/2016	2.5	1.3	---	11	---	---	---	---	---	---	---	---	---	---	
Composite B8	N/A	0.5	---	---	---	---	---	ND<2.0	0.83J	0.28J	ND<1.0	3.1J	ND<2.0	ND<1.0	---	Composite of E-16-0.5 and E-17-0.5
F-13-0.5	10/8/2016	0.5	1.3	---	12	---	---	---	---	---	---	---	---	---	---	
F-13-2.5	10/8/2016	2.5	2.2	---	30	---	---	---	---	---	---	---	---	---	---	
F-14-0.5	10/9/2016	0.5	4.2	---	48	---	---	---	---	---	---	---	---	---	---	
F-14-0.5 DUP	10/9/2016	0.5	2.6	---	42	---	---	---	---	---	---	---	---	---	---	
F-14-2.5	10/9/2016	2.5	2.0	---	8.8	---	---	---	---	---	---	---	---	---	---	
F-15-0.5	10/9/2016	0.5	4.5	---	28	---	---	---	---	---	---	---	---	---	---	
F-15-2.5	10/9/2016	2.5	1.5	---	16	---	---	---	---	---	---	---	---	---	---	
Composite B9	N/A	0.5	---	---	---	---	---	ND<2.0	1.2J	0.25J	ND<1.0	3.1J	ND<2.0	ND<1.0	---	Composite of F-13-0.5, F-14-0.5, and F-15-0.5
F-16-0.5	10/9/2016	0.5	2.9	---	16	---	---	---	---	---	---	---	---	---	---	
F-16-2.5	10/9/2016	2.5	1.7	---	42	---	---	---	---	---	---	---	---	---	---	

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			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
F-17-0.5	10/9/2016	0.5	3.0	---	29	---	---	---	---	---	---	---	---	---	---	
F-17-2.5	10/9/2016	2.5	2.1	---	55	---	---	---	---	---	---	---	---	---	---	
Composite B10	N/A	0.5	---	---	---	---	---	ND<2.0	2.0	0.60J	0.53J	5.1J	ND<2.0	0.23J	---	Composite of F-16-0.5 and F-17-0.5
Composite B10 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	1.1J	0.34J	ND<1.0	1.6J	ND<2.0	ND<1.0	---	Composite of F-16-0.5 and F-17-0.5
G-13-0.5	10/8/2016	0.5	1.6	---	10	---	---	---	---	---	---	---	---	---	---	
G-13-2.5	10/8/2016	2.5	1.7	---	37	---	---	---	---	---	---	---	---	---	---	
G-13-2.5 DUP	10/8/2016	2.5	1.6	---	4.0	---	---	---	---	---	---	---	---	---	---	
G-14-0.5	10/9/2016	0.5	3.4	---	29	---	---	---	---	---	---	---	---	---	---	
G-14-2.5	10/9/2016	2.5	ND<1.0	---	2.2	---	---	---	---	---	---	---	---	---	---	
G-15-0.5	10/9/2016	0.5	3.9	---	31	---	---	---	---	---	---	---	---	---	---	
G-15-2.5	10/9/2016	2.5	1.1	---	8.9	---	---	---	---	---	---	---	---	---	---	
Composite B11	N/A	0.5	---	---	---	---	---	ND<2.0	1.3J	0.50J	0.24J	4.2J	ND<2.0	ND<1.0	---	Composite of G-13-0.5, G-14-0.5, and G-15-0.5
G-16-0.5	10/9/2016	0.5	4.8	---	26	---	---	---	---	---	---	---	---	---	---	
G-16-2.5	10/9/2016	2.5	1.2	---	6.0	---	---	---	---	---	---	---	---	---	---	
G-17-0.5	10/9/2016	0.5	3.8	---	48	---	---	---	---	---	---	---	---	---	---	
G-17-2.5	10/9/2016	2.5	1.6	---	3.4	---	---	---	---	---	---	---	---	---	---	
Composite B12	N/A	0.5	---	---	---	---	---	ND<2.0	1.7J	ND<2.0	0.64J	4.1J	ND<2.0	ND<1.0	---	Composite of G-16-0.5 and G-17-0.5
H-13-0.5	10/8/2016	0.5	3.7	---	48	---	---	---	---	---	---	---	---	---	---	
H-13-2.5	10/8/2016	2.5	1.5	---	2.7	---	---	---	---	---	---	---	---	---	---	
H-14-0.5	10/9/2016	0.5	ND<5.0	---	28	---	---	---	---	---	---	---	---	---	---	
H-14-2.5	10/9/2016	2.5	1.6	---	4.3	---	---	---	---	---	---	---	---	---	---	
H-15-0.5	10/9/2016	0.5	4.3	---	27	---	---	---	---	---	---	---	---	---	---	
H-15-2.5	10/9/2016	2.5	1.4	---	6.0	---	---	---	---	---	---	---	---	---	---	
Composite B13	N/A	0.5	---	---	---	---	---	ND<2.0	1.1J	0.41J	0.32J	2.9J	ND<2.0	ND<1.0	---	Composite of H-13-0.5, H-14-0.5, and H-15-0.5
H-16-0.5	10/9/2016	0.5	4.7	---	33	---	---	---	---	---	---	---	---	---	---	
H-16-2.5	10/9/2016	2.5	2.4	---	20	---	---	---	---	---	---	---	---	---	---	
H-17-0.5	10/9/2016	0.5	7.3	---	60	---	---	---	---	---	---	---	---	---	---	
H-17-0.5 DUP	10/9/2016	0.5	3.9	---	65	---	---	---	---	---	---	---	---	---	---	
H-17-2.5	10/9/2016	2.5	1.9	---	3.6	---	---	---	---	---	---	---	---	---	---	
Composite B14	N/A	0.5	---	---	---	---	---	ND<2.0	0.75J	0.28J	ND<1.0	2.1J	ND<2.0	ND<1.0	---	Composite of H-16-0.5 and H-17-0.5
I-13-0.5	10/8/2016	0.5	2.5	---	5.9	---	---	---	---	---	---	---	---	---	---	
I-13-2.5	10/8/2016	2.5	1.3	---	1.6	---	---	---	---	---	---	---	---	---	---	
I-14-0.5	10/9/2016	0.5	3.5	---	49	---	---	---	---	---	---	---	---	---	---	
I-14-2.5	10/9/2016	2.5	2.3	---	6.1	---	---	---	---	---	---	---	---	---	---	
I-15-0.5	10/9/2016	0.5	4.7	---	43	---	---	---	---	---	---	---	---	---	---	
I-15-2.5	10/9/2016	2.5	3.5	---	53	---	---	---	---	---	---	---	---	---	---	
Composite B15	N/A	0.5	---	---	---	---	---	ND<2.0	0.28J	0.28J	ND<1.0	ND<8.5	ND<2.0	ND<1.0	(1)	Composite of I-13-0.5, I-14-0.5, and I-15-0.5
I-16-0.5	10/9/2016	0.5	2.9	---	13	---	---	---	---	---	---	---	---	---	---	
I-16-2.5	10/9/2016	2.5	4.6	---	35	---	---	---	---	---	---	---	---	---	---	
I-17-0.5	10/9/2016	0.5	8.7	---	79	---	---	---	---	---	---	---	---	---	---	
I-17-2.5	10/9/2016	2.5	1.8	---	2.4	---	---	---	---	---	---	---	---	---	---	
Composite B16	N/A	0.5	---	---	---	---	---	ND<2.0	0.58J	0.21J	0.34J	2.7J	ND<2.0	ND<1.0	---	Composite of I-16-0.5 and I-17-0.5

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
J-14-0.5	10/9/2016	0.5	4.3	---	43	---	---	---	---	---	---	---	---	---	---	
J-14-2.5	10/9/2016	2.5	1.8	---	77	---	---	---	---	---	---	---	---	---	---	
J-15-0.5	10/9/2016	0.5	4.6	---	64	---	---	---	---	---	---	---	---	---	---	
J-15-2.5	10/9/2016	2.5	1.2	---	1.7	---	---	---	---	---	---	---	---	---	---	
J-16-0.5	10/9/2016	0.5	3.8	---	68	---	---	---	---	---	---	---	---	---	---	
J-16-2.5	10/9/2016	2.5	2.7	---	20	---	---	---	---	---	---	---	---	---	---	
J-17-0.5	10/9/2016	0.5	4.8	---	59	---	---	---	---	---	---	---	---	---	---	
J-17-2.5	10/9/2016	2.5	2.0	---	3.8	---	---	---	---	---	---	---	---	---	---	
Composite B17	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of J-14-0.5, J-15-0.5, J-16-0.5, and J-17-0.5
K-14-0.5	10/9/2016	0.5	3.4	---	55	---	---	---	---	---	---	---	---	---	---	
K-14-2.5	10/9/2016	2.5	1.0	---	5.6	---	---	---	---	---	---	---	---	---	---	
K-15-0.5	10/9/2016	0.5	2.3	---	47	---	---	---	---	---	---	---	---	---	---	
K-15-2.5	10/9/2016	2.5	0.84J	---	2.2	---	---	---	---	---	---	---	---	---	---	
K-16-0.5	10/9/2016	0.5	1.6	---	9.6	---	---	---	---	---	---	---	---	---	---	
K-16-2.5	10/9/2016	2.5	1.8	---	13	---	---	---	---	---	---	---	---	---	---	
K-16-2.5 DUP	10/9/2016	2.5	2.5	---	25	---	---	---	---	---	---	---	---	---	---	
K-17-0.5	10/15/2016	0.5	6.3	---	9.7	---	---	---	---	---	---	---	---	---	---	
K-17-0.5 DUP	10/15/2016	0.5	3.4	---	8.2	---	---	---	---	---	---	---	---	---	---	
K-17-2.5	10/15/2016	2.5	1.2	---	3.4	---	---	---	---	---	---	---	---	---	---	
Composite B18	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of K-14-0.5, K-15-0.5, K-16-0.5, and K-17-0.5
Area 5 - Auditorium and Lunch Pavilion																
MB-1-0.5	10/15/2016	0.5	6.9	---	24	---	---	---	---	---	---	---	---	---	---	
MB-1-2.5	10/15/2016	2.5	0.96J	---	3.0	---	---	---	---	---	---	---	---	---	---	
MB-2-0.5	10/15/2016	0.5	8.1	---	8.1	---	---	---	---	---	---	---	---	---	---	
MB-2-2.5	10/15/2016	2.5	4.9	---	4.9	---	---	---	---	---	---	---	---	---	---	
MB-2-2.5 DUP	10/15/2016	2.5	7.6	---	5.0	---	---	---	---	---	---	---	---	---	---	
MB-3-0.5	10/16/2016	0.5	4.4	---	15	---	---	---	---	---	---	---	---	---	---	
MB-3-2.5	10/16/2016	2.5	3.1	---	7.2	---	---	---	---	---	---	---	---	---	---	
Composite C1	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of MB-1-0.5, MB-2-0.5, MB-3-0.5
MB-4-0.5	10/15/2016	0.5	6.1	---	18	---	---	---	---	---	---	---	---	---	---	
MB-4-2.5	10/15/2016	2.5	4.2	---	18	---	---	---	---	---	---	---	---	---	---	
MB-5-0.5	10/15/2016	0.5	3.9	---	24	---	---	---	---	---	---	---	---	---	---	
MB-5-0.5 DUP	10/15/2016	0.5	4.3	---	11	---	---	---	---	---	---	---	---	---	---	
MB-5-2.5	10/15/2016	2.5	4.6	---	5.2	---	---	---	---	---	---	---	---	---	---	
MB-6-0.5	10/16/2016	0.5	3.5	---	41	---	---	---	---	---	---	---	---	---	---	
MB-6-0.5 DUP	10/16/2016	0.5	3.5	---	89	2.5	---	---	---	---	---	---	---	---	---	
MB-6-2.5	10/16/2016	2.5	2.4	---	27	---	---	---	---	---	---	---	---	---	---	
MB-6a-0.5	11/21/2016	0.5	---	---	7.7	---	---	---	---	---	---	---	---	---	---	
MB-6c-0.5	11/21/2016	0.5	---	---	8.9	---	---	---	---	---	---	---	---	---	---	
MB-6d-0.5	11/21/2016	0.5	---	---	7.8	---	---	---	---	---	---	---	---	---	---	
Composite C2	N/A	0.5	---	---	---	---	---	ND<2.0	1.2J	ND<2.0	0.48J	5.2J	ND<2.0	ND<1.0	---	Composite of MB-4-0.5, MB-5-0.5, MB-6-0.5
Composite C2 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	0.43J	ND<2.0	ND<1.0	1.1J	ND<2.0	ND<1.0	---	Composite of MB-4-0.5, MB-5-0.5, MB-6-0.5

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AUD-1-0.5	10/16/2016	0.5	3.9	---	24	---	---	---	---	---	---	---	---	---	---	
AUD-1-2.5	10/16/2016	2.5	0.98J	---	5.1	---	---	---	---	---	---	---	---	---	---	
AUD-2-0.5	10/16/2016	0.5	ND<2.0	---	4.4	---	---	---	---	---	---	---	---	---	---	
AUD-2-0.5 DUP	10/16/2016	0.5	6.3	---	29	---	---	---	---	---	---	---	---	---	---	
AUD-2-2.5	10/16/2016	2.5	4.1	---	10	---	---	---	---	---	---	---	---	---	---	
AUD-3-0.5	10/16/2016	0.5	3.5	---	110	6.4	ND<0.25	---	---	---	---	---	---	---	---	
AUD-3-2.5	10/16/2016	2.5	2.4	---	8.5	---	---	---	---	---	---	---	---	---	---	
AUD-3a-0.5	11/21/2016	0.5	---	---	4300	74	1.7	---	---	---	---	---	---	---	---	
AUD-3a-2.5	11/21/2016	2.5	---	---	53	---	---	---	---	---	---	---	---	---	---	
AUD-3a1-0.5	3/25/2017	0.5	---	---	110	5.6	0.17 J	---	---	---	---	---	---	---	---	
AUD-3a1-0.5 DUP	3/25/2017	0.5	---	---	110	5.7	0.16 J	---	---	---	---	---	---	---	---	
AUD-3a1-2.5	3/25/2017	2.5	---	---	9.7	---	---	---	---	---	---	---	---	---	---	
AUD-3b-0.5	11/21/2016	0.5	---	---	140	10	ND<0.25	---	---	---	---	---	---	---	---	
AUD-3b-2.5	11/21/2016	2.5	---	---	7.7	---	---	---	---	---	---	---	---	---	---	
AUD-3b1-0.5	3/25/2017	0.5	---	---	22	---	---	---	---	---	---	---	---	---	---	
AUD-3b1-2.5	3/25/2017	2.5	---	---	3.2	---	---	---	---	---	---	---	---	---	---	
AUD-3c-0.25	11/21/2016	0.25	---	---	500	13	0.015 J	---	---	---	---	---	---	---	---	
AUD-3c-0.5	11/21/2016	0.5	---	---	700	22	0.28	---	---	---	---	---	---	---	---	
AUD-3c-2.5	11/21/2016	2.5	---	---	42	---	---	---	---	---	---	---	---	---	---	
AUD-3c1-0.5	3/25/2017	0.5	---	---	100	4.3	---	---	---	---	---	---	---	---	---	
AUD-3c1-2.5	3/25/2017	2.5	---	---	43	---	---	---	---	---	---	---	---	---	---	
AUD-4-0.25	11/21/2016	0.25	---	---	29	---	---	---	---	---	---	---	---	---	---	
AUD-4-0.25 DUP	11/21/2016	0.25	---	---	20	---	---	---	---	---	---	---	---	---	---	
AUD-4-0.5	10/16/2016	0.5	8.8	---	390	29	0.41	---	---	---	---	---	---	---	---	
AUD-4-2.5	10/16/2016	2.5	3.0	---	12	---	---	---	---	---	---	---	---	---	---	
AUD-4b-0.25	11/21/2016	0.25	---	---	21	---	---	---	---	---	---	---	---	---	---	
AUD-4b-0.5	11/21/2016	0.5	---	---	9.8	---	---	---	---	---	---	---	---	---	---	
AUD-4c-0.25	11/21/2016	0.25	---	---	49	---	---	---	---	---	---	---	---	---	---	
AUD-4c-0.5	11/21/2016	0.5	---	---	460	ND<1.0	---	---	---	---	---	---	---	---	---	
AUD-4c-2.5	11/21/2016	2.5	---	---	18	---	---	---	---	---	---	---	---	---	---	
AUD-4c1-0.5	3/25/2017	0.5	---	---	11	---	---	---	---	---	---	---	---	---	---	
AUD-4c1-2.5	3/25/2017	2.5	---	---	7.4	---	---	---	---	---	---	---	---	---	---	
Composite C3	N/A	0.5	---	---	---	---	---	0.22J	1.1J	0.50J	1.2	6.8J	1.7J	0.71J	(2)	Composite of AUD-1-0.5, AUD-2-0.5, AUD-3-0.5, and AUD-4-0.5
AUD-5-0.25	11/21/2016	0.25	---	---	130	17	0.040 J	---	---	---	---	---	---	---	---	---
AUD-5-0.5	10/16/2016	0.5	ND<5.0	---	620	24	0.59	---	---	---	---	---	---	---	---	---
AUD-5-2.5	10/16/2016	2.5	3.2	---	43	---	---	---	---	---	---	---	---	---	---	---
AUD-5b-0.25	11/21/2016	0.5	---	---	13	---	---	---	---	---	---	---	---	---	---	---
AUD-5b-0.5	11/21/2016	0.5	---	---	240	9.7	ND<0.25	---	---	---	---	---	---	---	---	---
AUD-5b-2.5	11/21/2016	2.5	---	---	28	---	---	---	---	---	---	---	---	---	---	---
AUD-5c-0.25	11/21/2016	0.25	---	---	110	6.0	ND<0.25	---	---	---	---	---	---	---	---	---
AUD-5c-0.5	11/21/2016	0.5	---	---	13	---	---	---	---	---	---	---	---	---	---	---
AUD-6-0.25	11/21/2016	0.25	---	---	160	7.8	0.11 J	---	---	---	---	---	---	---	---	---
AUD-6-0.5	10/16/2016	0.5	5.2	---	670	26	1.5	---	---	---	---	---	---	---	---	---
AUD-6-2.5	10/16/2016	2.5	3.4	---	19	---	---	---	---	---	---	---	---	---	---	---
AUD-6b-0.25	11/21/2016	0.25	--	---	41	---	---	---	---	---	---	---	---	---	---	---
AUD-6b-0.5	11/21/2016	0.5	--	---	160	13	ND<0.25	---	---	---	---	---	---	---	---	---

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AUD-6b-2.5	11/21/2016	2.5	---	---	2.5	---	---	---	---	---	---	---	---	---	---	
AUD-6c-0.25	11/21/2016	0.25	--	---	110	3.9	---	---	---	---	---	---	---	---	---	
AUD-6c-0.25 DUP	11/21/2016	0.25	--	---	82	6.2	ND<0.25	---	---	---	---	---	---	---	---	
AUD-6c-0.5	11/21/2016	0.5	--	---	66	---	---	---	---	---	---	---	---	---	---	
AUD-7-0.5	10/16/2016	0.5	4.5	---	16	---	---	---	---	---	---	---	---	---	---	
AUD-7-0.5 DUP	10/16/2016	0.5	4.8	---	12	---	---	---	---	---	---	---	---	---	---	
AUD-7-2.5	10/16/2016	2.5	4.1	---	12	---	---	---	---	---	---	---	---	---	---	
AUD-8-0.5	10/16/2016	0.5	1.9	---	3.2	---	---	---	---	---	---	---	---	---	---	
AUD-8-2.5	10/16/2016	2.5	2.8	---	2.3	---	---	---	---	---	---	---	---	---	---	
AUD-8-2.5 DUP	10/16/2016	2.5	3.1	---	2.4	---	---	---	---	---	---	---	---	---	---	
Composite C4	N/A	0.5	---	---	---	---	---	ND<2.0	1.3J	1.2J	3.0	22	7.3	1.7	---	Composite of AUD-5-0.5, AUD-6-0.5, AUD-7-0.5, and AUD-8-0.5
AUD-9-0.5	10/16/2016	0.5	3.8J	---	6.0	---	---	---	---	---	---	---	---	---	---	
AUD-9-0.5 DUP	10/16/2016	0.5	4.5J	---	5.9	---	---	---	---	---	---	---	---	---	---	
AUD-9-2.5	10/16/2016	2.5	2.5	---	1.3	---	---	---	---	---	---	---	---	---	---	
AUD-10-0.5	10/16/2016	0.5	8.4	---	19	---	---	---	---	---	---	---	---	---	---	
AUD-10-2.5	10/16/2016	2.5	2.2	---	9.2	---	---	---	---	---	---	---	---	---	---	
AUD-11-0.5	10/16/2016	0.5	3.5	---	17	---	---	---	---	---	---	---	---	---	---	
AUD-11-2.5	10/16/2016	2.5	1.7	---	3.8	---	---	---	---	---	---	---	---	---	---	
AUD-12-0.5	10/16/2016	0.5	3.5	---	25	---	---	---	---	---	---	---	---	---	---	
AUD-12-2.5	10/16/2016	2.5	1.8	---	8.1	---	---	---	---	---	---	---	---	---	---	
Composite C5	N/A	0.5	---	---	---	---	---	0.25J	0.59J	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AUD-9-0.5, AUD-10-0.5, AUD-11-0.5, and AUD-12-0.5
UB-1-0.5	10/16/2016	0.5	4.0J	---	6.1	---	---	---	---	---	---	---	---	---	---	
UB-1-2.5	10/16/2016	2.5	3.2	---	2.8	---	---	---	---	---	---	---	---	---	---	
UB-2-0.5	10/16/2016	0.5	5.9	---	8.6	---	---	---	---	---	---	---	---	---	---	
UB-2-2.5	10/16/2016	2.5	5.3	---	4.7	---	---	---	---	---	---	---	---	---	---	
UB-3-0.5	10/16/2016	0.5	6.5	---	26	---	---	---	---	---	---	---	---	---	---	
UB-3-2.5	10/16/2016	2.5	4.7	---	5.1	---	---	---	---	---	---	---	---	---	---	
Composite C6	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<16	Composite of UB-1-0.5, UB-2-0.5, and UB-3-0.5
UB-4-0.5	10/16/2016	0.5	3.1	---	6.9	---	---	---	---	---	---	---	---	---	---	
UB-4-2.5	10/16/2016	2.5	3.9	---	5.0	---	---	---	---	---	---	---	---	---	---	
UB-5-0.5	10/16/2016	0.5	6.7	---	9.8	---	---	---	---	---	---	---	---	---	---	
UB-5-2.5	10/16/2016	2.5	1.9	---	2.6	---	---	---	---	---	---	---	---	---	---	
UB-5-2.5 DUP	10/16/2016	2.5	2.4	---	2.4	---	---	---	---	---	---	---	---	---	---	
UB-6-0.5	10/16/2016	0.5	2.3	---	6.1	---	---	---	---	---	---	---	---	---	---	
UB-6-0.5 DUP	10/16/2016	0.5	2.0	---	5.9	---	---	---	---	---	---	---	---	---	---	
UB-6-2.5	10/16/2016	2.5	2.0	---	3.4	---	---	---	---	---	---	---	---	---	---	
Composite C7	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of UB-4-0.5, UB-5-0.5, and UB-6-0.5
HVAC-1-0.5	10/16/2016	0.5	3.7	---	3.7	---	---	---	---	---	---	---	---	---	---	
HVAC-1-2.5	10/16/2016	2.5	2.8	---	2.7	---	---	---	---	---	---	---	---	---	---	
HVAC-2-0.5	10/16/2016	0.5	3.9	---	4.7	---	---	---	---	---	---	---	---	---	---	
HVAC-2-2.5	10/16/2016	2.5	3.4	---	3.1	---	---	---	---	---	---	---	---	---	---	
HVAC-3-0.5	10/16/2016	0.5	2.8	---	8.5	---	---	---	---	---	---	---	---	---	---	
HVAC-3-2.5	10/16/2016	2.5	2.5	---	6.8	---	---	---	---	---	---	---	---	---	---	
Composite C8	N/A	0.5	---	---	---	---	---	---	---	---	---	---	---	---	ND<16	Composite of HVAC-1-0.5, HVAC-2-0.5, HVAC-3-0.5

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
Composite C8 DUP	N/A	0.5	---	---	---	---	---	---	---	---	---	---	---	---	ND<16	Composite of HVAC-1-0.5, HVAC-2-0.5, HVAC-3-0.5
AA-653-1-0.5	10/15/2016	0.5	3.5	---	21	---	---	---	---	---	---	---	---	---	---	
AA-653-1-2.5	10/15/2016	2.5	9.0	---	12	---	---	---	---	---	---	---	---	---	---	
AA-653-2-0.5	10/16/2016	0.5	2.1	---	23	---	---	---	---	---	---	---	---	---	---	
AA-653-2-2.5	10/16/2016	2.5	1.5	---	4.7	---	---	---	---	---	---	---	---	---	---	
AA-653-3-0.5	10/16/2016	0.5	10	---	17	---	---	---	---	---	---	---	---	---	---	
AA-653-3-2.5	10/16/2016	2.5	2.0	---	13	---	---	---	---	---	---	---	---	---	---	
AA-653-3-2.5 DUP	10/16/2016	2.5	2.9	---	9.8	---	---	---	---	---	---	---	---	---	---	
AA-653-4-0.5	10/16/2016	0.5	ND<5.0	---	26	---	---	---	---	---	---	---	---	---	---	
AA-653-4-2.5	10/16/2016	2.5	2.5	---	17	---	---	---	---	---	---	---	---	---	---	
Composite C9	N/A	0.5	---	---	---	---	---	1.1J	1.0J	2.3	ND<1.0	1.4J	ND<2.0	ND<1.0	---	Composite of AA653-1-0.5, AA653-2-0.5, AA653-3-0.5, and AA653-4-0.5
AA-652-1-0.5	10/16/2016	0.5	3.5	---	7.4	---	---	---	---	---	---	---	---	---	---	
AA-652-1-2.5	10/16/2016	2.5	1.9	---	6.2	---	---	---	---	---	---	---	---	---	---	
AA-652-2-0.5	10/16/2016	0.5	2.2	---	4.8	---	---	---	---	---	---	---	---	---	---	
AA-652-2-2.5	10/16/2016	2.5	1.6	---	4.9	---	---	---	---	---	---	---	---	---	---	
AA-652-3-0.5	10/16/2016	0.5	2.6	---	3.4	---	---	---	---	---	---	---	---	---	---	
AA-652-3-0.5 DUP	10/16/2016	0.5	2.8	---	13	---	---	---	---	---	---	---	---	---	---	
AA-652-3-2.5	10/16/2016	2.5	1.6	---	8.3	---	---	---	---	---	---	---	---	---	---	
AA-652-4-0.5	10/16/2016	0.5	2.2	---	3.2	---	---	---	---	---	---	---	---	---	---	
AA-652-4-2.5	10/16/2016	2.5	1.3	---	4.0	---	---	---	---	---	---	---	---	---	---	
Composite C10	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA652-1-0.5, AA652-2-0.5, AA652-3-0.5, and AA652-4-0.5
P-6-0.5	10/16/2016	0.5	5.2	---	7.5	---	---	---	---	---	---	---	---	---	---	
P-6-2.5	10/16/2016	2.5	7.5	---	4.3	---	---	---	---	---	---	---	---	---	---	
P-7-0.5	10/16/2016	0.5	ND<10	---	13	---	---	---	---	---	---	---	---	---	---	
P-7-2.5	10/16/2016	2.5	2.9	---	7.3	---	---	---	---	---	---	---	---	---	---	
Q-6-0.5	10/16/2016	0.5	1.6	---	6.3	---	---	---	---	---	---	---	---	---	---	
Q-6-0.5 DUP	10/16/2016	0.5	ND<20	---	4.9J	---	---	---	---	---	---	---	---	---	---	
Q-6-2.5	10/16/2016	2.5	5.8	---	4.4	---	---	---	---	---	---	---	---	---	---	
Q-7-0.5	10/16/2016	0.5	4.6	---	9.1	---	---	---	---	---	---	---	---	---	---	
Q-7-2.5	10/16/2016	2.5	5.5	---	5.6	---	---	---	---	---	---	---	---	---	---	
Composite C11	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of P6-0.5, P7-0.5, Q6-0.5, and Q7-0.5
Q-4-0.5	10/16/2016	0.5	1.8J	---	4.9	---	---	---	---	---	---	---	---	---	---	
Q-4-2.5	10/16/2016	2.5	7.8	---	8.2	---	---	---	---	---	---	---	---	---	---	
Q4-2.5 DUP	10/16/2016	2.5	6.5	---	11	---	---	---	---	---	---	---	---	---	---	
R-4-0.5	10/16/2016	0.5	ND<20	---	4.0J	---	---	---	---	---	---	---	---	---	---	
R-4-2.5	10/16/2016	2.5	5.3	---	6.3	---	---	---	---	---	---	---	---	---	---	
S-4-0.5	10/16/2016	0.5	ND<5.0	---	8.3	---	---	---	---	---	---	---	---	---	---	
S-4-2.5	10/16/2016	2.5	5.3	---	4.4	---	---	---	---	---	---	---	---	---	---	
T4-0.5	10/16/2016	0.5	ND<20	---	5.4J	---	---	---	---	---	---	---	---	---	---	
T-4-0.5 DUP	10/16/2016	0.5	1.2	---	3.4	---	---	---	---	---	---	---	---	---	---	



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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
T-4-2.5	10/16/2016	2.5	4.4	---	7.7	---	---	---	---	---	---	---	---	---	---	
Composite C12	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of Q4-0.5, R4-0.5, S4-0.5, and T4-0.5
Composite C12 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of Q4-0.5, R4-0.5, S4-0.5, and T4-0.5
R-7-0.5	10/16/2016	0.5	2.8	---	7.9	---	---	---	---	---	---	---	---	---	---	
R-7-2.5	10/16/2016	2.5	5.5	---	9.7	---	---	---	---	---	---	---	---	---	---	
S-7-0.5	10/16/2016	0.5	9.1	---	7.8	---	---	---	---	---	---	---	---	---	---	
S-7-2.5	10/16/2016	2.5	4.8	---	6.5	---	---	---	---	---	---	---	---	---	---	
T-7-0.5	10/16/2016	0.5	ND<1.0	---	4.9	---	---	---	---	---	---	---	---	---	---	
T-7-2.5	10/16/2016	2.5	2.9	---	17	---	---	---	---	---	---	---	---	---	---	
Composite C13	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of R7-0.5, S7-0.5, and T7-0.5
Area 6																
AA955-1-0.5	10/23/2016	0.5	7.0	---	4.0	---	---	---	---	---	---	---	---	---	---	
AA955-1-2.5	10/23/2016	2.5	9.2	---	4.1	---	---	---	---	---	---	---	---	---	---	
AA955-2-0.5	10/23/2016	0.5	8.2	---	5.5	---	---	---	---	---	---	---	---	---	---	
AA955-2-2.5	10/23/2016	2.5	9.6	---	5.4	---	---	---	---	---	---	---	---	---	---	
AA955-2-2.5 DUP	10/23/2016	2.5	11	---	5.4	---	---	---	---	---	---	---	---	---	---	
AA955-3-0.5	10/23/2016	0.5	1.5	---	6.3	---	---	---	---	---	---	---	---	---	---	
AA955-3-0.5 DUP	10/23/2016	0.5	2.1	---	5.6	---	---	---	---	---	---	---	---	---	---	
AA955-3-2.5	10/23/2016	2.5	1.4	---	7.4	---	---	---	---	---	---	---	---	---	---	
Composite F1	N/A	0.5	---	---	---	---	---	ND<20	ND<20	ND<20	ND<10	ND<85	ND<20	ND<10	ND<16	Composite of AA955-1-0.5, AA955-2-0.5, and AA955-3-0.5
AA955-4-0.5	10/23/2016	0.5	1.2	---	3.2	---	---	---	---	---	---	---	---	---	---	
AA955-4-2.5	10/23/2016	2.5	1.1	---	33	---	---	---	---	---	---	---	---	---	---	
AA955-5-0.5	10/23/2016	0.5	2.2	---	3.8	---	---	---	---	---	---	---	---	---	---	
AA955-5-2.5	10/23/2016	2.5	0.82J	---	2.7	---	---	---	---	---	---	---	---	---	---	
AA955-6-0.5	10/23/2016	0.5	1.0	---	3.4	---	---	---	---	---	---	---	---	---	---	
AA955-6-2.5	10/23/2016	2.5	ND<1.0	---	2.1	---	---	---	---	---	---	---	---	---	---	
Composite F2	N/A	0.5	---	---	---	---	---	ND<20	ND<20	ND<20	ND<10	ND<85	ND<20	ND<10	---	Composite of AA955-4-0.5, AA955-5-0.5, and AA955-6-0.5
AA2573-1-0.5	10/23/2016	0.5	2.7	---	13	---	---	---	---	---	---	---	---	---	---	
AA2573-1-2.5	10/23/2016	2.5	2.8	---	16	---	---	---	---	---	---	---	---	---	---	
AA2573-2-0.5	10/29/2016	0.5	1.9	---	3.3	---	---	---	---	---	---	---	---	---	---	
AA2573-2-0.5 DUP	10/29/2016	0.5	2.1	---	3.5	---	---	---	---	---	---	---	---	---	---	
AA2573-2-2.5	10/29/2016	2.5	3.7	---	17	---	---	---	---	---	---	---	---	---	---	
AA2573-3-0.5	10/23/2016	0.5	1.5	---	3.9	---	---	---	---	---	---	---	---	---	---	
AA2573-3-2.5	10/23/2016	2.5	2.2	---	3.5	---	---	---	---	---	---	---	---	---	---	
Composite F3	N/A	0.5	---	---	---	---	---	ND<2.0	1.9J	1.9J	ND<1.0	ND<8.5	5.6	ND<1.0	---	Composite of AA2573-1-0.5, AA2573-2-0.5, and AA2573-3-0.5
AA2573-4-0.5	10/23/2016	0.5	5.2	---	6.5	---	---	---	---	---	---	---	---	---	---	
AA2573-4-2.5	10/23/2016	2.5	2.4	---	4.9	---	---	---	---	---	---	---	---	---	---	
AA2573-5-0.5	10/23/2016	0.5	6.2	---	13	---	---	---	---	---	---	---	---	---	---	
AA2573-5-2.5	10/23/2016	2.5	2.4	---	11	---	---	---	---	---	---	---	---	---	---	
Composite F4	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	13	ND<1.0	---	Composite of AA2573-4-0.5 and AA2573-5-0.5
AA1917-1-0.5	10/29/2016	0.5	1.6	---	3.3	---	---	---	---	---	---	---	---	---	---	

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AA1917-1-2.5	10/29/2016	2.5	1.5	---	16	---	---	---	---	---	---	---	---	---	---	
AA1917-2-0.5	10/29/2016	0.5	2.1	---	4.5	---	---	---	---	---	---	---	---	---	---	
AA1917-2-2.5	10/29/2016	2.5	1.5	---	9.1	---	---	---	---	---	---	---	---	---	---	
AA1917-3-0.5	10/29/2016	0.5	1.8	---	4.7	---	---	---	---	---	---	---	---	---	---	
AA1917-3-2.5	10/29/2016	2.5	1.8	---	6.1	---	---	---	---	---	---	---	---	---	---	
AA1917-4-0.5	10/29/2016	0.5	1.9	---	5.5	---	---	---	---	---	---	---	---	---	---	
AA1917-4-2.5	10/29/2016	2.5	2.5	---	220	0.52 J	---	---	---	---	---	---	---	---	---	
AA1917-4-3.5	3/25/2017	3.5	---	---	120	0.43 J	---	---	---	---	---	---	---	---	---	
AA1917-4-3.5 DUP	3/25/2017	3.5	---	---	12	---	---	---	---	---	---	---	---	---	---	
AA1917-4b-0.5	11/22/2016	0.5	---	---	3.8	---	---	---	---	---	---	---	---	---	---	
AA1917-4b-2.5	11/22/2016	2.5	---	---	6.5	---	---	---	---	---	---	---	---	---	---	
AA1917-4b-3.5	11/22/2016	3.5	---	---	18	---	---	---	---	---	---	---	---	---	---	
AA1917-4c-2.5	11/22/2016	2.5	---	---	3.0	---	---	---	---	---	---	---	---	---	---	
AA1917-4c-2.5 DUP	11/22/2016	2.5	---	---	2.3	---	---	---	---	---	---	---	---	---	---	
AA1917-4c-3.5	11/22/2016	3.5	---	---	3.9	---	---	---	---	---	---	---	---	---	---	
AA1917-4d-0.5	11/22/2016	0.5	---	---	5.4	---	---	---	---	---	---	---	---	---	---	
AA1917-4d-2.5	11/22/2016	2.5	---	---	8.7	---	---	---	---	---	---	---	---	---	---	
AA1917-4d-2.5 DUP	11/22/2016	2.5	---	---	7.5	---	---	---	---	---	---	---	---	---	---	
AA1917-4d-3.5	11/22/2016	3.5	---	---	6.9	---	---	---	---	---	---	---	---	---	---	
Composite F5	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	2.8	ND<1.0	---	Composite of AA1917-1-0.5, AA1917-2-0.5, AA1917-3-0.5, and AA1917-4-0.5
AA2685-1-0.5	10/29/2016	0.5	5.5	---	27	---	---	---	---	---	---	---	---	---	---	
AA2685-1-2.5	10/29/2016	2.5	5.2	---	10	---	---	---	---	---	---	---	---	---	---	
AA2685-2-0.5	10/29/2016	0.5	9.5	---	9.2	---	---	---	---	---	---	---	---	---	---	
AA2685-2-2.5	10/29/2016	2.5	4.9	---	19	---	---	---	---	---	---	---	---	---	---	
AA2685-3-0.5	10/29/2016	0.5	2.2	---	14	---	---	---	---	---	---	---	---	---	---	
AA2685-3-2.5	10/29/2016	2.5	2.6	---	19	---	---	---	---	---	---	---	---	---	---	
AA2685-4-0.5	10/29/2016	0.5	4.2	---	7.7	---	---	---	---	---	---	---	---	---	---	
AA2685-4-2.5	10/29/2016	2.5	5.9	---	9.5	---	---	---	---	---	---	---	---	---	---	
AA2685-4-2.5 DUP	10/29/2016	2.5	6.0	---	10	---	---	---	---	---	---	---	---	---	---	
Composite F6	N/A	0.5	---	---	---	---	---	ND<10	ND<10	15	1.3J	18J	2.0J	2.0J	---	Composite of AA2685-1-0.5, AA2685-2-0.5, AA2685-3-0.5, and AA2685-4-0.5
AA2684-1-0.5	10/29/2016	0.5	2.0	---	11	---	---	---	---	---	---	---	---	---	---	
AA2684-1-2.5	10/29/2016	2.5	2.0	---	16	---	---	---	---	---	---	---	---	---	---	
AA2684-2-0.5	10/29/2016	0.5	18	---	19	---	---	---	---	---	---	---	---	---	---	
AA2684-2-2.5	10/29/2016	2.5	20	---	16	---	---	---	---	---	---	---	---	---	---	
AA2684-2-3.5	3/25/2017	3.5	19	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-2-3.5 DUP	3/25/2017	3.5	20	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-3-0.5	10/29/2016	0.5	6.7	---	20	---	---	---	---	---	---	---	---	---	---	
AA2684-3-2.5	10/29/2016	2.5	33	---	25	---	---	---	---	---	---	---	---	---	---	
AA2684-3-3.5	3/25/2017	3.5	15	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-4-0.5	10/29/2016	0.5	6.8	---	16	---	---	---	---	---	---	---	---	---	---	
AA2684-4-2.5	10/29/2016	2.5	8.5	---	7.3	---	---	---	---	---	---	---	---	---	---	
AA2684-5-0.5	12/21/2016	0.5	2.7	---	---	---	---	---	---	---	---	---	---	---	---	

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Sample Location	Sample Date	Depth (feet bgs)	Analyses and Analytical Methods													Comments
			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AA2684-5-2.5	12/21/2016	2.5	1.9	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-5-3.5	12/21/2016	3.5	1.6	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-6-0.5	12/21/2016	0.5	27	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-6-0.5 DUP	12/21/2016	0.5	28	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-6-2.5	12/21/2016	2.5	28	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-6-3.5	12/21/2016	3.5	23	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-6-4.5	3/25/2017	4.5	4.7	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-7-0.5	12/21/2016	0.5	2.3	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-7-2.5	12/21/2016	2.5	1.4	---	---	---	---	---	---	---	---	---	---	---	---	
AA2684-7-3.5	12/21/2016	3.5	1.2	---	---	---	---	---	---	---	---	---	---	---	---	
Composite F7	N/A	0.5	---	---	---	---	---	ND<10	ND<10	ND<10	ND<5.0	5.1J	ND<10	ND<5.0	---	Composite of AA2684-1-0.5, AA2684-2-0.5, AA2684-3-0.5, and AA2684-4-0.5
AA2543-1-0.5	10/29/2016	0.5	3.9	---	7.4	---	---	---	---	---	---	---	---	---	---	
AA2543-1-2.5	10/29/2016	2.5	34	---	26	---	---	---	---	---	---	---	---	---	---	
AA2543-1-3.5	3/25/2017	3.5	23	---	---	---	---	---	---	---	---	---	---	---	---	
AA2543-2-0.5	10/29/2016	0.5	23	---	17	---	---	---	---	---	---	---	---	---	---	
AA2543-2-2.5	10/29/2016	2.5	25	---	17	---	---	---	---	---	---	---	---	---	---	
AA2543-2-2.5 DUP	10/29/2016	2.5	24	---	17	---	---	---	---	---	---	---	---	---	---	
AA2543-2-3.5	3/25/2017	3.5	7.2	---	---	---	---	---	---	---	---	---	---	---	---	
AA2543-3-0.5	10/29/2016	0.5	2.0	---	7.2	---	---	---	---	---	---	---	---	---	---	
AA2543-3-2.5	10/29/2016	2.5	4.2	---	18	---	---	---	---	---	---	---	---	---	---	
Composite F8	N/A	0.5	---	---	---	---	---	ND<10	ND<10	ND<10	ND<5.0	6.5J	ND<10	ND<5.0	---	Composite of AA2543-1-0.5, AA2543-2-0.5, and AA2543-3-0.5
AA2543-4-0.5	10/29/2016	0.5	6.2	---	12	---	---	---	---	---	---	---	---	---	---	
AA2543-4-2.5	10/29/2016	2.5	11	---	38	---	---	---	---	---	---	---	---	---	---	
AA2543-5-0.5	10/29/2016	0.5	25	---	16	---	---	---	---	---	---	---	---	---	---	
AA2543-5-2.5	10/29/2016	2.5	34	---	26	---	---	---	---	---	---	---	---	---	---	
AA2543-5-3.5	3/26/2017	3.5	27	---	---	---	---	---	---	---	---	---	---	---	---	
AA2543-5-3.5 DUP	3/26/2017	3.5	30	---	---	---	---	---	---	---	---	---	---	---	---	
AA2543-6-0.5	10/29/2016	0.5	39	---	34	---	---	---	---	---	---	---	---	---	---	
AA2543-6-2.5	10/29/2016	2.5	19	---	35	---	---	---	---	---	---	---	---	---	---	
AA2543-6-3.5	3/26/2017	3.5	1.2	---	---	---	---	---	---	---	---	---	---	---	---	
AA2543-7-0.5	12/21/2016	0.5	2.7	---	29	---	---	---	---	---	---	---	---	---	---	
AA2543-7-2.5	12/21/2016	2.5	1.5	---	4.0	---	---	---	---	---	---	---	---	---	---	
AA2543-7-2.5 DUP	12/21/2016	2.5	1.6	---	---	---	---	---	---	---	---	---	---	---	---	
AA2543-7-3.5	12/21/2016	3.5	2.9	---	---	---	---	---	---	---	---	---	---	---	---	
AA2543-8-0.5	12/21/2016	0.5	2.8	---	39	---	---	---	---	---	---	---	---	---	---	
AA2543-8-2.5	12/21/2016	2.5	2.0	---	8.4	---	---	---	---	---	---	---	---	---	---	
AA2543-8-3.5	12/21/2016	3.5	1.5	---	---	---	---	---	---	---	---	---	---	---	---	
Composite F9	N/A	0.5	---	---	---	---	---	ND<10	ND<10	ND<10	ND<5.0	ND<42	ND<10	ND<5.0	---	Composite of AA2543-4-0.5, AA2543-5-0.5, and AA2543-6-0.5
AA2038-1-0.5	10/30/2016	0.5	23	---	11	---	---	---	---	---	---	---	---	---	---	
AA2038-1-2.5	10/30/2016	2.5	23	---	7.9	---	---	---	---	---	---	---	---	---	---	
AA2038-1-3.5	3/26/2017	3.5	19	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-2-0.5	10/30/2016	0.5	14	---	13	---	---	---	---	---	---	---	---	---	---	
AA2038-2-2.5	10/30/2016	2.5	31	---	15	---	---	---	---	---	---	---	---	---	---	

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AA2038-2-3.5	3/26/2017	3.5	24	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-3-0.5	10/30/2016	0.5	13	---	8.0	---	---	---	---	---	---	---	---	---	---	
AA2038-3-2.5	10/30/2016	2.5	27	---	10	---	---	---	---	---	---	---	---	---	---	
AA2038-3-3.5	3/26/2017	3.5	12	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-4-0.5	10/30/2016	0.5	16	---	13	---	---	---	---	---	---	---	---	---	---	
AA2038-4-2.5	10/30/2016	2.5	20	---	9.8	---	---	---	---	---	---	---	---	---	---	
AA2038-4-2.5 DUP	10/30/2016	2.5	21	---	12	---	---	---	---	---	---	---	---	---	---	
AA2038-4-3.5	3/26/2017	3.5	20	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-5-0.5	12/21/2016	0.5	4.1	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-5-2.5	12/21/2016	2.5	3.4	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-5-3.5	12/21/2016	3.5	2.8	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-6-0.5	12/21/2016	0.5	6.1	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-6-2.5	12/21/2016	2.5	3.3	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-6-3.5	12/21/2016	3.5	3.9	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-7-0.5	12/21/2016	0.5	12	---	40	---	---	---	---	---	---	---	---	---	---	
AA2038-7-2.5	12/21/2016	2.5	11	---	37	---	---	---	---	---	---	---	---	---	---	
AA2038-7-3.5	12/21/2016	3.5	8.8	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-7-3.5 DUP	12/21/2016	3.5	10	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-8-0.5	12/21/2016	0.5	5.5	---	59	---	---	---	---	---	---	---	---	---	---	
AA2038-8-2.5	12/21/2016	2.5	4.2	---	21	---	---	---	---	---	---	---	---	---	---	
AA2038-8-3.5	12/21/2016	3.5	4.0	---	---	---	---	---	---	---	---	---	---	---	---	
AA2038-9-0.5	12/21/2016	0.5	6.4	---	150	8.1	0.040	---	---	---	---	---	---	---	---	
AA2038-9-2.5	12/21/2016	2.5	4.2	---	14	---	---	---	---	---	---	---	---	---	---	
AA2038-9-3.5	12/21/2016	3.5	4.1	---	---	---	---	---	---	---	---	---	---	---	---	
Composite F10	N/A	0.5	---	---	---	---	---	ND<20	ND<20	ND<20	ND<10	ND<85	ND<20	ND<10	---	Composite of AA2038-1-0.5, AA2038-2-0.5, AA2038-3-0.5, and AA2038-4-0.5
Composite F10 DUP	N/A	0.5	---	---	---	---	---	ND<20	ND<20	ND<20	ND<10	ND<85	ND<20	ND<10	---	Composite of AA2038-1-0.5, AA2038-2-0.5, AA2038-3-0.5, and AA2038-4-0.5
AA2249-1-0.5	10/30/2016	0.5	24	---	14	---	---	---	---	---	---	---	---	---	---	
AA2249-1-2.5	10/30/2016	2.5	33	---	12	---	---	---	---	---	---	---	---	---	---	
AA2249-1-3.5	3/26/2017	3.5	19	---	---	---	---	---	---	---	---	---	---	---	---	
AA2249-2-0.5	10/30/2016	0.5	22	---	19	---	---	---	---	---	---	---	---	---	---	
AA2249-2-2.5	10/30/2016	2.5	35	---	13	---	---	---	---	---	---	---	---	---	---	
AA2249-2-2.5 DUP	10/30/2016	2.5	31	---	14	---	---	---	---	---	---	---	---	---	---	
AA2249-2-3.5	3/26/2017	3.5	26	---	---	---	---	---	---	---	---	---	---	---	---	
AA2249-3-0.5	10/30/2016	0.5	6.4	---	8.5	---	---	---	---	---	---	---	---	---	---	
AA2249-3-2.5	10/30/2016	2.5	5.9	---	9.2	---	---	---	---	---	---	---	---	---	---	
AA2249-4-0.5	10/30/2016	0.5	2.3	---	4.2	---	---	---	---	---	---	---	---	---	---	
AA2249-4-2.5	10/30/2016	2.5	1.7	---	1.9	---	---	---	---	---	---	---	---	---	---	
AA2249-5-0.5	12/21/2016	0.5	6.1	---	---	---	---	---	---	---	---	---	---	---	---	
AA2249-5-0.5 DUP	12/21/2016	0.5	5.4	---	---	---	---	---	---	---	---	---	---	---	---	
AA2249-5-2.5	12/21/2016	2.5	6.1	---	---	---	---	---	---	---	---	---	---	---	---	
AA2249-5-3.5	12/21/2016	3.5	10	---	---	---	---	---	---	---	---	---	---	---	---	
AA2249-6-0.5	12/21/2016	0.5	1.6	---	---	---	---	---	---	---	---	---	---	---	---	
AA2249-6-2.5	12/21/2016	2.5	2.9	---	---	---	---	---	---	---	---	---	---	---	---	

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AA2249-6-3.5	12/21/2016	3.5	3.0	---	---	---	---	---	---	---	---	---	---	---	---	Composite of AA2249-1-0.5, AA2249-2-0.5, AA2249-3-0.5, and AA2249-4-0.5
Composite F11	N/A	0.5	---	---	---	---	---	ND<20	ND<20	ND<20	ND<10	ND<85	ND<20	ND<10	---	
FS-1-0.5	10/23/2016	0.5	3.0	---	19	---	---	---	---	---	---	---	---	---	---	
FS-1-2.5	10/23/2016	2.5	ND<1.0	---	3.9	---	---	---	---	---	---	---	---	---	---	
FS-2-0.5	10/23/2016	0.5	20	---	6.7	---	---	---	---	---	---	---	---	---	---	
FS-2-2.5	10/23/2016	2.5	4.9	---	3.1	---	---	---	---	---	---	---	---	---	---	
FS-2b-0.5	11/22/2016	0.5	10	---	---	---	---	---	---	---	---	---	---	---	---	
FS-2c-0.5	11/22/2016	0.5	3.4	---	---	---	---	---	---	---	---	---	---	---	---	
FS-3-0.5	10/23/2016	0.5	2.4	---	4.5	---	---	---	---	---	---	---	---	---	---	
FS-3-2.5	10/23/2016	2.5	3.7	---	3.3	---	---	---	---	---	---	---	---	---	---	
FS-4-0.5	10/23/2016	0.5	3.9	---	29	---	---	---	---	---	---	---	---	---	---	
FS-4-2.5	10/23/2016	2.5	1.4	---	2.7	---	---	---	---	---	---	---	---	---	---	
Composite F12	N/A	0.5	---	---	---	---	---	ND<2.0	0.80J	ND<2.0	ND<1.0	ND<8.5	1.0J	ND<1.0	---	Composite of FS-1-0.5, FS-2-0.5, FS-3-0.5, and FS-4-0.5
IA-1-0.5	10/30/2016	0.5	0.88J	---	3.2	---	---	---	---	---	---	---	---	---	---	
IA-1-2.5	10/30/2016	2.5	3.6	---	20	---	---	---	---	---	---	---	---	---	---	
IA-2-0.5	10/30/2016	0.5	0.80J	---	4.0	---	---	---	---	---	---	---	---	---	---	
IA-2-2.5	10/30/2016	2.5	0.90J	---	3.6	---	---	---	---	---	---	---	---	---	---	
IA-3-0.5	10/30/2016	0.5	2.2	---	2.6	---	---	---	---	---	---	---	---	---	---	
IA-3-0.5 DUP	10/30/2016	0.5	2.0	---	3.7	---	---	---	---	---	---	---	---	---	---	
IA-3-2.5	10/30/2016	2.5	0.96J	---	2.6	---	---	---	---	---	---	---	---	---	---	
IA-4-0.5	10/30/2016	0.5	1.8	---	13	---	---	---	---	---	---	---	---	---	---	
IA-4-2.5	10/30/2016	2.5	2.2	---	8.7	---	---	---	---	---	---	---	---	---	---	
IA-5-0.5	10/30/2016	0.5	1.7	---	29	---	---	---	---	---	---	---	---	---	---	
IA-5-2.5	10/30/2016	2.5	2.4	---	12	---	---	---	---	---	---	---	---	---	---	
IA-6-0.5	10/30/2016	0.5	1.4	---	24	---	---	---	---	---	---	---	---	---	---	
IA-6-2.5	10/30/2016	2.5	3.4	---	35	---	---	---	---	---	---	---	---	---	---	
IA-7-0.5	3/26/2017	0.5	---	---	12	---	---	---	---	---	---	---	---	---	---	
IA-7-2.5	3/26/2017	2.5	---	---	7.9	---	---	---	---	---	---	---	---	---	---	
IA-7-3.5	3/26/2017	3.5	---	---	2.8	---	---	---	---	---	---	---	---	---	---	
IA-7-4.5	3/26/2017	4.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
IA-8-0.5	3/26/2017	0.5	---	---	21	---	---	---	---	---	---	---	---	---	---	
IA-8-2.5	3/26/2017	2.5	---	---	11	---	---	---	---	---	---	---	---	---	---	
IA-8-3.5	3/26/2017	3.5	---	---	11	---	---	---	---	---	---	---	---	---	---	
IA-8-4.5	3/26/2017	4.5	---	---	9.6	---	---	---	---	---	---	---	---	---	---	
AS-1-0.5	10/30/2016	0.5	1.6	---	3.9	---	---	---	---	---	---	---	---	---	---	
AS-1-2.5	10/30/2016	2.5	1.6	---	4.0	---	---	---	---	---	---	---	---	---	---	
AS-2-0.5	10/30/2016	0.5	2.0	---	65	---	---	---	---	---	---	---	---	---	---	
AS-2-2.5	10/30/2016	2.5	1.6	---	10	---	---	---	---	---	---	---	---	---	---	
AS-2-2.5 DUP	10/30/2016	2.5	2.5	---	7.3	---	---	---	---	---	---	---	---	---	---	
AS-3-0.5	10/30/2016	0.5	1.7	---	5.5	---	---	---	---	---	---	---	---	---	---	
AS-3-2.5	10/30/2016	2.5	1.7	---	14	---	---	---	---	---	---	---	---	---	---	
AS-4-0.5	10/30/2016	0.5	2.0	---	4.4	---	---	---	---	---	---	---	---	---	---	

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			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin		gamma-Chlordane	
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AS-4-2.5	10/30/2016	2.5	1.5	---	3.2	---	---	---	---	---	---	---	---	---	---	
Composite F13	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<16	Composite of AS-1-0.5, AS-2-0.5, AS-3-0.5, and AS-4-0.5
IM-1-0.5	10/30/2016	0.5	8.3	---	42	---	---	---	---	---	---	---	---	---	---	
IM-1-2.5	10/30/2016	2.5	20	---	35	---	---	---	---	---	---	---	---	---	---	
IM-1-3.5	3/26/2017	3.5	4.4	---	---	---	---	---	---	---	---	---	---	---	---	
IM-1a-0.5	12/21/2016	0.5	1.1	---	---	---	---	---	---	---	---	---	---	---	---	
IM-1a-2.5	12/21/2016	2.5	1.5	---	---	---	---	---	---	---	---	---	---	---	---	
IM-1a-3.5	12/21/2016	3.5	1.6	---	---	---	---	---	---	---	---	---	---	---	---	
IM-1b-0.5	11/23/2016	0.5	7.2	---	44	---	---	---	---	---	---	---	---	---	---	
IM-1b-2.5	11/23/2016	2.5	2.0	---	10	---	---	---	---	---	---	---	---	---	---	
IM-1b-3.5	11/23/2016	3.5	2.9	---	8.5	---	---	---	---	---	---	---	---	---	---	
IM-1d-0.5	11/23/2016	0.5	5.0	---	---	---	---	---	---	---	---	---	---	---	---	
IM-1d-2.5	11/23/2016	2.5	3.7	---	---	---	---	---	---	---	---	---	---	---	---	
IM-2-0.5	10/30/2016	0.5	4.2	---	42	---	---	---	---	---	---	---	---	---	---	
IM-2-2.5	10/30/2016	2.5	4.6	---	160	13	0.020 J	---	---	---	---	---	---	---	---	
IM-2-3.5	3/26/2017	3.5	---	---	63	---	---	---	---	---	---	---	---	---	---	
IM-2a-0.5	12/21/2016	0.5	---	---	2.5	---	---	---	---	---	---	---	---	---	---	
IM-2a-2.5	12/21/2016	2.5	---	---	2.3	---	---	---	---	---	---	---	---	---	---	
IM-2a-3.5	12/21/2016	3.5	---	---	2.2	---	---	---	---	---	---	---	---	---	---	
IM-2b-0.5	11/23/2016	0.5	17	---	100	6.8	0.028 J	---	---	---	---	---	---	---	---	
IM-2b-0.5 DUP	11/23/2016	0.5	17	---	150	6.3	0.038 J	---	---	---	---	---	---	---	---	
IM-2b-2.5	11/23/2016	2.5	---	---	4.1	---	---	---	---	---	---	---	---	---	---	
IM-2b-3.5	11/23/2016	3.5	---	---	3.3	---	---	---	---	---	---	---	---	---	---	
IM-3-0.5	10/30/2016	0.5	25	---	74	---	---	---	---	---	---	---	---	---	---	
IM-3-0.5 DUP	10/30/2016	0.5	22	---	61	---	---	---	---	---	---	---	---	---	---	
IM-3-2.5	10/30/2016	2.5	6.9	---	11	---	---	---	---	---	---	---	---	---	---	
IM-3c-0.5	11/23/2016	0.5	66	4.1	---	---	---	---	---	---	---	---	---	---	---	
IM-3c-2.5	11/23/2016	2.5	22	---	---	---	---	---	---	---	---	---	---	---	---	
IM-3c-3.5	11/23/2016	3.5	16	---	---	---	---	---	---	---	---	---	---	---	---	
IM-3c-4.5	3/26/2017	4.5	2.2	---	---	---	---	---	---	---	---	---	---	---	---	
Composite F14	N/A	0.5	---	---	---	---	---	5.0	400	18	30	270	6.7	30	---	Composite of IM-1-0.5, IM-2-0.5, and IM-3-0.5
IM-4-0.5	10/30/2016	0.5	16	---	66	---	---	---	---	---	---	---	---	---	---	
IM-4-2.5	10/30/2016	2.5	20	---	22	---	---	---	---	---	---	---	---	---	---	
IM-4-3.5	3/26/2017	3.5	ND<1.0	---	---	---	---	---	---	---	---	---	---	---	---	
IM-4d-0.5	11/23/2016	0.5	9.3	---	---	---	---	---	---	---	---	---	---	---	---	
IM-4d-2.5	11/23/2016	2.5	4.7	---	---	---	---	---	---	---	---	---	---	---	---	
IM-4d-3.5	11/23/2016	3.5	5.7	---	---	---	---	---	---	---	---	---	---	---	---	
IM-5-0.5	10/30/2016	0.5	29	---	54	---	---	---	---	---	---	---	---	---	---	
IM-5-2.5	10/30/2016	2.5	22	---	40	---	---	---	---	---	---	---	---	---	---	
IM-5-3.5	3/26/2017	3.5	2.1	---	---	---	---	---	---	---	---	---	---	---	---	
IM-5d-0.5	11/23/2016	0.5	24	---	---	---	---	---	---	---	---	---	---	---	---	
IM-5d-2.5	11/23/2016	2.5	5.5	---	---	---	---	---	---	---	---	---	---	---	---	
IM-5d-2.5 DUP	11/23/2016	2.5	7.3	---	---	---	---	---	---	---	---	---	---	---	---	
IM-5d-3.5	11/23/2016	3.5	14	---	---	---	---	---	---	---	---	---	---	---	---	
IM-5d-4.5	3/26/2017	4.5	11	---	---	---	---	---	---	---	---	---	---	---	---	

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
IM-5d-4.5 DUP	3/26/2017	4.5	10	---	---	---	---	---	---	---	---	---	---	---	---	
IM-6-0.5	10/30/2016	0.5	12	---	36	---	---	---	---	---	---	---	---	---	---	
IM-6-2.5	10/30/2016	2.5	2.9	---	25	---	---	---	---	---	---	---	---	---	---	
IM-6-2.5 DUP	10/30/2016	2.5	2.6	---	29	---	---	---	---	---	---	---	---	---	---	
Composite F15	N/A	0.5	---	---	---	---	---	ND<2.0	1.1J	ND<2.0	1.2	13	1.3J	1.2	---	Composite of IM-4-0.5, IM-5-0.5, and IM-6-0.5
CRA-1-0.5	10/30/2016	0.5	1.8	---	26	---	---	---	---	---	---	---	---	---	---	
CRA-1-0.5 DUP	10/30/2016	0.5	2.3	---	24	---	---	---	---	---	---	---	---	---	---	
CRA-1-2.5	10/30/2016	2.5	2.5	---	51	---	---	---	---	---	---	---	---	---	---	
CRA-2-0.5	10/30/2016	0.5	3.6	---	110	10	ND<0.25	---	---	---	---	---	---	---	---	
CRA-2-2.5	10/30/2016	2.5	3.5	---	140	5.4	0.033 J	---	---	---	---	---	---	---	---	
CRA-2-3.5	3/26/2017	3.5	---	---	23	---	---	---	---	---	---	---	---	---	---	
CRA-2b-0.5	11/22/2016	0.5	---	---	89	4.5	---	---	---	---	---	---	---	---	---	
CRA-2b-2.5	11/22/2016	2.5	---	---	720	140	0.82	---	---	---	---	---	---	---	---	
CRA-2b-3.5	11/22/2016	3.5	---	---	67	---	---	---	---	---	---	---	---	---	---	
CRA-2c-0.5	11/22/2016	0.5	---	---	54	---	---	---	---	---	---	---	---	---	---	
CRA-2c-2.5	11/22/2016	2.5	---	---	39	---	---	---	---	---	---	---	---	---	---	
CRA-2c-3.5	11/22/2016	3.5	---	---	120	5.6	0.017 J	---	---	---	---	---	---	---	---	
CRA-2c-4.5	3/26/2017	4.5	---	---	11	---	---	---	---	---	---	---	---	---	---	
CRA-2c-4.5 DUP	3/26/2017	4.5	---	---	5.9	---	---	---	---	---	---	---	---	---	---	
CRA-2d-0.5	11/22/2016	0.5	1.9	---	31	---	---	---	---	---	---	---	---	---	---	
CRA-2d-0.5 DUP	11/22/2016	0.5	2.8	---	73	---	---	---	---	---	---	---	---	---	---	
CRA-2d-2.5	11/22/2016	2.5	---	---	44	---	---	---	---	---	---	---	---	---	---	
CRA-2d-2.5 DUP	11/22/2016	2.5	---	---	51	---	---	---	---	---	---	---	---	---	---	
CRA-2d-3.5	11/22/2016	3.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
CRA-3-0.5	10/30/2016	0.5	16	---	55	---	---	---	---	---	---	---	---	---	---	
CRA-3-2.5	10/30/2016	2.5	5.4	---	6.0	---	---	---	---	---	---	---	---	---	---	
CRA-3c-0.5	11/22/2016	0.5	3.4	---	---	---	---	---	---	---	---	---	---	---	---	
CRA-3d-0.5	11/22/2016	0.5	1.7	---	---	---	---	---	---	---	---	---	---	---	---	
CRA-4-0.5	10/30/2016	0.5	1.9	---	41	---	---	---	---	---	---	---	---	---	---	
CRA-4-2.5	10/30/2016	2.5	1.1	---	11	---	---	---	---	---	---	---	---	---	---	
Composite F16	N/A	0.5	---	---	---	---	---	ND<2.0	0.73J	3.8	ND<1.0	ND<8.5	2.6	ND<1.0	---	Composite of CRA-1-0.5, CRA-2-0.5, CRA-3-0.5, and CRA-4-0.5
CRB-1-0.5	10/30/2016	0.5	1.9	---	33	---	---	---	---	---	---	---	---	---	---	
CRB-1-2.5	10/30/2016	2.5	2.4	---	4.8	---	---	---	---	---	---	---	---	---	---	
CRB-2-0.5	10/30/2016	0.5	2.1	---	3.4	---	---	---	---	---	---	---	---	---	---	
CRB-2-2.5	10/30/2016	2.5	1.9	---	2.4	---	---	---	---	---	---	---	---	---	---	
CRB-3-0.5	10/30/2016	0.5	1.7	---	14	---	---	---	---	---	---	---	---	---	---	
CRB-3-2.5	10/30/2016	2.5	1.3	---	24	---	---	---	---	---	---	---	---	---	---	
CRB-4-0.5	10/30/2016	0.5	2.1	---	3.5	---	---	---	---	---	---	---	---	---	---	
CRB-4-2.5	10/30/2016	2.5	1.7	---	4.6	---	---	---	---	---	---	---	---	---	---	
CRB-4-2.5 DUP	10/30/2016	2.5	1.6	---	3.0	---	---	---	---	---	---	---	---	---	---	
Composite F17	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of CRB-1-0.5, CRB-2-0.5, CRB-3-0.5, and CRB-4-0.5
CR1-1-0.5	10/30/2016	0.5	3.8	---	35	---	---	---	---	---	---	---	---	---	---	
CR1-1-0.5 DUP	10/30/2016	0.5	3.5	---	44	---	---	---	---	---	---	---	---	---	---	

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
CR1-1-2.5	10/30/2016	2.5	3.5	---	14	---	---	---	---	---	---	---	---	---	---	
CR1-2-0.5	10/30/2016	0.5	4.1	---	100	6.3	0.017 J	---	---	---	---	---	---	---	---	
CR1-2-2.5	10/30/2016	2.5	3.7	---	37	---	---	---	---	---	---	---	---	---	---	
CR1-2a-0.5	11/23/2016	0.5	---	---	75	---	---	---	---	---	---	---	---	---	---	
CR1-2b-0.5	11/23/2016	0.5	---	---	74	---	---	---	---	---	---	---	---	---	---	
CR1-2d-0.5	11/23/2016	0.5	---	---	120	26	0.25	---	---	---	---	---	---	---	---	
CR1-2d-2.5	11/23/2016	2.5	---	---	6.5	---	---	---	---	---	---	---	---	---	---	
CR1-2d1-0.5	3/26/2017	0.5	---	---	160	11	0.10 J	---	---	---	---	---	---	---	---	
CR1-2d1-2.5	3/26/2017	2.5	---	---	3.3	---	---	---	---	---	---	---	---	---	---	
CR1-3-0.5	10/30/2016	0.5	1.6	---	9.0	---	---	---	---	---	---	---	---	---	---	
CR1-3-2.5	10/30/2016	2.5	1.8	---	5.5	---	---	---	---	---	---	---	---	---	---	
Composite F18	N/A	0.5	---	---	---	---	---	ND<2.0	0.77J	ND<2.0	1.8	21	7.3	1.4	ND<16	Composite of CR1-1-0.5, CR1-2-0.5, and CR1-3-0.5
Composite F18 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	0.65J	ND<2.0	1.8	22	6.5	1.5	ND<16	Composite of CR1-1-0.5, CR1-2-0.5, and CR1-3-0.5
CR1-4-0.5	10/30/2016	0.5	4.9	---	130	32	0.12 J	---	---	---	---	---	---	---	---	
CR1-4-2.5	10/30/2016	2.5	3.1	---	14	---	---	---	---	---	---	---	---	---	---	
CR1-4b-0.5	11/23/2016	0.5	---	---	350	22	0.12 J	---	---	---	---	---	---	---	---	
CR1-4b-2.5	11/23/2016	2.5	---	---	33	---	---	---	---	---	---	---	---	---	---	
CR1-4b1-0.5	3/26/2017	0.5	---	---	21	---	---	---	---	---	---	---	---	---	---	
CR1-4b1-0.5 DUP	3/26/2017	0.5	---	---	21	---	---	---	---	---	---	---	---	---	---	
CR1-4b1-2.5	3/26/2017	2.5	---	---	4.5	---	---	---	---	---	---	---	---	---	---	
CR1-4c-0.5	11/23/2016	0.5	---	---	53	---	---	---	---	---	---	---	---	---	---	
CR1-5-0.25	11/23/2016	0.25	9.3	---	170	11	0.031 J	---	---	---	---	---	---	---	---	
CR1-5-0.5	10/30/2016	0.5	23	---	310	25	0.16 J	---	---	---	---	---	---	---	---	
CR1-5-2.5	10/30/2016	2.5	15	---	18	---	---	---	---	---	---	---	---	---	---	
CR1-5-3.5	3/26/2017	3.5	1.7	---	---	---	---	---	---	---	---	---	---	---	---	
CR1-5b-0.25	11/23/2016	0.25	13	---	190	9.0	0.048 J	---	---	---	---	---	---	---	---	
CR1-5b-0.25 DUP	11/23/2016	0.25	13	---	180	12	0.034 J	---	---	---	---	---	---	---	---	
CR1-5b-0.5	11/23/2016	0.5	32	---	630	25	0.071 J	---	---	---	---	---	---	---	---	
CR1-5b-2.5	11/23/2016	2.5	19	---	140	14	0.044 J	---	---	---	---	---	---	---	---	
CR1-5b-3.5	11/23/2016	3.5	10	---	12	---	---	---	---	---	---	---	---	---	---	
CR1-5c-0.25	11/23/2016	0.25	3.6	---	43	---	---	---	---	---	---	---	---	---	---	
CR1-5c-0.5	11/23/2016	0.5	4.9	---	37	---	---	---	---	---	---	---	---	---	---	
CR1-5c-2.5	11/23/2016	2.5	1.5	---	12	---	---	---	---	---	---	---	---	---	---	
CR1-5c-3.5	11/23/2016	3.5	1.9	---	6.6	---	---	---	---	---	---	---	---	---	---	
CR1-5d-0.25	11/23/2016	0.25	8.6	---	91	8.5	0.024 J	---	---	---	---	---	---	---	---	
CR1-5d-0.5	11/23/2016	0.5	6.4	---	25	---	---	---	---	---	---	---	---	---	---	
CR1-5d-2.5	11/23/2016	2.5	1.9	---	22	---	---	---	---	---	---	---	---	---	---	
CR1-5d-3.5	11/23/2016	3.5	1.8	---	50	---	---	---	---	---	---	---	---	---	---	
CR1-5d-3.5 DUP	11/23/2016	3.5	2.3	---	5.7	---	---	---	---	---	---	---	---	---	---	
CR1-5d1-0.5	3/25/2017	0.5	6.9	---	51	---	---	---	---	---	---	---	---	---	---	
CR1-5d1-0.5 DUP	3/25/2017	0.5	6.6	---	79	---	---	---	---	---	---	---	---	---	---	
CR1-5d1-2.5	3/25/2017	2.5	2.6	---	3.8	---	---	---	---	---	---	---	---	---	---	
CR1-6-0.5	10/30/2016	0.5	3.4	---	10	---	---	---	---	---	---	---	---	---	---	
CR1-6-2.5	10/30/2016	2.5	2.7	---	6.7	---	---	---	---	---	---	---	---	---	---	
Composite F19	N/A	0.5	---	---	---	---	---	ND<2.0	0.54J	ND<2.0	0.46J	5.0J	ND<2.0	0.30J	---	Composite of CR1-4-0.5, CR1-5-0.5, and CR1-6-0.5

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLIC	STLC	TTLIC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
P14-0.5	10/29/2016	0.5	3.1	---	6.9	---	---	---	---	---	---	---	---	---	---	
P14-0.5 DUP	10/29/2016	0.5	2.6	---	6.4	---	---	---	---	---	---	---	---	---	---	
P14-2.5	10/29/2016	2.5	3.2	---	21	---	---	---	---	---	---	---	---	---	---	
P15-0.5	10/30/2016	0.5	3.4	---	90	4.9	---	---	---	---	---	---	---	---	---	
P15-2.5	10/30/2016	2.5	2.9	---	140	9.7	ND<0.25	---	---	---	---	---	---	---	---	
P15-3.5	3/25/2017	3.5	---	---	24	---	---	---	---	---	---	---	---	---	---	
P15a-0.5	11/22/2016	0.5	---	---	39	---	---	---	---	---	---	---	---	---	---	
P15a-2.5	11/22/2016	2.5	---	---	150	2.2	---	---	---	---	---	---	---	---	---	
P15a-3.5	11/22/2016	3.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
P15b-0.5	11/22/2016	0.5	---	---	190	8.5	0.014 J	---	---	---	---	---	---	---	---	
P15b-2.5	11/22/2016	2.5	---	---	55	---	---	---	---	---	---	---	---	---	---	
P15b-3.5	11/22/2016	3.5	---	---	3.6	---	---	---	---	---	---	---	---	---	---	
P15d-0.5	11/22/2016	0.5	---	---	140	4.8	---	---	---	---	---	---	---	---	---	
P15d-2.5	11/22/2016	2.5	---	---	440	7.3	ND<0.25	---	---	---	---	---	---	---	---	
P15d-2.5 DUP	11/22/2016	2.5	---	---	110	11	0.043 J	---	---	---	---	---	---	---	---	
P15d-3.5	11/22/2016	3.5	---	---	39	---	---	---	---	---	---	---	---	---	---	
P15d1-0.5	3/25/2017	0.5	---	---	12	---	---	---	---	---	---	---	---	---	---	
P15d1-2.5	3/25/2017	2.5	---	---	21	---	---	---	---	---	---	---	---	---	---	
P15d1-3.5	3/25/2017	3.5	---	---	280	20	0.080 J	---	---	---	---	---	---	---	---	
P15d1-4.5	3/25/2017	4.5	---	---	10	---	---	---	---	---	---	---	---	---	---	
P15d1-4.5 DUP	3/25/2017	4.5	---	---	11	---	---	---	---	---	---	---	---	---	---	
P16-0.5	10/30/2016	0.5	2.9	---	110	7.4	0.028 J	---	---	---	---	---	---	---	---	
P16-2.5	10/30/2016	2.5	2.3	---	13	---	---	---	---	---	---	---	---	---	---	
P16a-0.5	11/22/2016	0.5	---	---	31	---	---	---	---	---	---	---	---	---	---	
P16b-0.5	11/22/2016	0.5	5.2	---	34	---	---	---	---	---	---	---	---	---	---	
P16c-0.5	11/22/2016	0.5	3.1	---	84	3.6	---	---	---	---	---	---	---	---	---	
P16c-2.5	11/22/2016	2.5	---	---	22	---	---	---	---	---	---	---	---	---	---	
Composite F20	N/A	0.5	---	---	---	---	---	ND<20	4.6J	ND<20	ND<10	ND<85	ND<20	ND<10	---	Composite of P14-0.5, P15-0.5, and P16-0.5
Q14-0.5	10/30/2016	0.5	2.2	---	5.6	---	---	---	---	---	---	---	---	---	---	
Q14-2.5	10/30/2016	2.5	1.5	---	32	---	---	---	---	---	---	---	---	---	---	
Q15-0.5	10/30/2016	0.5	3.1	---	110	6.0	ND<0.25	---	---	---	---	---	---	---	---	
Q15-2.5	10/30/2016	2.5	3.8	---	59	---	---	---	---	---	---	---	---	---	---	
Q15a-0.5	11/22/2016	0.5	---	---	46	---	---	---	---	---	---	---	---	---	---	
Q15a-2.5	11/22/2016	2.5	---	---	4200	190	ND<0.25	---	---	---	---	---	---	---	---	
Q15a-3.5	11/22/2016	3.5	---	---	190	120	0.029 J	---	---	---	---	---	---	---	---	
Q15a-3.5 DUP	11/22/2016	3.5	---	---	280	6.5	ND<0.25	---	---	---	---	---	---	---	---	
Q15a-4.5	3/25/2017	4.5	---	---	140	4.2	---	---	---	---	---	---	---	---	---	
Q15b-0.5	11/22/2016	0.5	---	---	56	---	---	---	---	---	---	---	---	---	---	
Q15b-2.5	11/22/2016	2.5	---	---	6	---	---	---	---	---	---	---	---	---	---	
Q15d-0.5	11/22/2016	0.5	---	---	23	---	---	---	---	---	---	---	---	---	---	
Q15d-2.5	11/22/2016	2.5	---	---	97	3.9	---	---	---	---	---	---	---	---	---	
Q15d-3.5	3/25/2017	3.5	---	---	4.5	---	---	---	---	---	---	---	---	---	---	
Q15d-4.5	3/25/2017	4.5	---	---	3.9	---	---	---	---	---	---	---	---	---	---	
Q15d1-0.5	3/26/2017	0.5	---	---	5.8	---	---	---	---	---	---	---	---	---	---	
Q15d1-2.5	3/26/2017	2.5	---	---	6.3	---	---	---	---	---	---	---	---	---	---	

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			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
Q15d1-2.5 DUP	3/26/2017	2.5	---	---	7.2	---	---	---	---	---	---	---	---	---	---	
Q15d1-3.5	3/26/2017	3.5	---	---	7.0	---	---	---	---	---	---	---	---	---	---	
Q15d1-4.5	3/26/2017	4.5	---	---	4.3	---	---	---	---	---	---	---	---	---	---	
Q16-0.5	10/30/2016	0.5	5.3	---	36	---	---	---	---	---	---	---	---	---	---	
Q16-2.5	10/30/2016	2.5	3.1	---	5.9	---	---	---	---	---	---	---	---	---	---	
Composite F21	N/A	0.5	---	---	---	---	---	0.30J	2.4	3.8	0.90J	13	0.58J	0.82J	---	Composite of Q14-0.5, Q15-0.5, and Q16-0.5
R14-0.5	10/30/2016	0.5	2.2	---	2.8	---	---	---	---	---	---	---	---	---	---	
R14-2.5	10/30/2016	2.5	2.2	---	3.4	---	---	---	---	---	---	---	---	---	---	
R15-0.25	11/22/2016	0.25	---	---	95	0.78 J	---	---	---	---	---	---	---	---	---	
R15-0.25 DUP	11/22/2016	0.25	---	---	19	---	---	---	---	---	---	---	---	---	---	
R15-0.5	10/30/2016	0.5	3.8	---	300	1.9	---	---	---	---	---	---	---	---	---	
R15-2.5	10/30/2016	2.5	2.5	---	22	---	---	---	---	---	---	---	---	---	---	
R15a-0.25	11/22/2016	0.25	---	---	63	---	---	---	---	---	---	---	---	---	---	
R15a-0.5	11/22/2016	0.5	---	---	9.4	---	---	---	---	---	---	---	---	---	---	
R15a-2.5	11/22/2016	2.5	---	---	2.7	---	---	---	---	---	---	---	---	---	---	
R15b-0.25	11/22/2016	0.25	---	---	31	---	---	---	---	---	---	---	---	---	---	
R15b-0.5	11/22/2016	0.5	---	---	15	---	---	---	---	---	---	---	---	---	---	
R15c-0.25	11/22/2016	0.25	---	---	61	---	---	---	---	---	---	---	---	---	---	
R15c-0.5	11/22/2016	0.5	---	---	16	---	---	---	---	---	---	---	---	---	---	
R15d-0.25	11/22/2016	0.25	---	---	21	---	---	---	---	---	---	---	---	---	---	
R15d-0.5	11/22/2016	0.5	---	---	100	8.3	ND<0.25	---	---	---	---	---	---	---	---	
R15d-2.5	11/22/2016	2.5	---	---	41	---	---	---	---	---	---	---	---	---	---	
R16-0.5	10/30/2016	0.5	2.9	---	41	---	---	---	---	---	---	---	---	---	---	
R16-2.5	10/30/2016	2.5	3.4	---	10	---	---	---	---	---	---	---	---	---	---	
Composite F22	N/A	0.5	---	---	---	---	---	ND<2.0	1.7J	2.4	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of R14-0.5, R15-0.5, and R16-0.5
Area 8 - South Central Portion of Campus																
AA923-1-0.5	10/22/2016	0.5	2.9	---	1.9	---	---	---	---	---	---	---	---	---	---	
AA923-1-0.5 DUP	10/22/2016	0.5	3.0	---	1.9	---	---	---	---	---	---	---	---	---	---	
AA923-1-2.5	10/22/2016	2.5	2.6	---	1.8	---	---	---	---	---	---	---	---	---	---	
AA923-2-0.5	10/22/2016	0.5	2.4	---	1.5	---	---	---	---	---	---	---	---	---	---	
AA923-2-2.5	10/22/2016	2.5	3.2	---	1.2	---	---	---	---	---	---	---	---	---	---	
AA923-2-2.5 DUP	10/22/2016	2.5	3.8	---	1.0	---	---	---	---	---	---	---	---	---	---	
AA923-3-0.5	10/22/2016	0.5	3.2	---	11	---	---	---	---	---	---	---	---	---	---	
AA923-3-2.5	10/22/2016	2.5	3.1	---	1.8	---	---	---	---	---	---	---	---	---	---	
Composite D1	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA923-1-0.5, AA923-2-0.5, and AA923-3-0.5
AA923-4-0.5	10/22/2016	0.5	8.0	---	1.4	---	---	---	---	---	---	---	---	---	---	
AA923-4-2.5	10/22/2016	2.5	4.4	---	1.7	---	---	---	---	---	---	---	---	---	---	
AA923-5-0.5	10/22/2016	0.5	3.5	---	2.6	---	---	---	---	---	---	---	---	---	---	
AA923-5-2.5	10/22/2016	2.5	3.1	---	3.8	---	---	---	---	---	---	---	---	---	---	
AA923-6-0.5	10/22/2016	0.5	3.3	---	4.8	---	---	---	---	---	---	---	---	---	---	
AA923-6-2.5	10/22/2016	2.5	3.1	---	2.7	---	---	---	---	---	---	---	---	---	---	
Composite D2	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA923-4-0.5, AA923-5-0.5, and AA923-6-0.5

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AA1322-1-0.5	10/22/2016	0.5	5.1	---	1.6	---	---	---	---	---	---	---	---	---	---	
AA1322-1-2.5	10/22/2016	2.5	3.2	---	2.1	---	---	---	---	---	---	---	---	---	---	
AA1322-2-0.5	10/22/2016	0.5	4.9	---	1.6	---	---	---	---	---	---	---	---	---	---	
AA1322-2-2.5	10/22/2016	2.5	3.0	---	1.4	---	---	---	---	---	---	---	---	---	---	
AA1322-3-0.5	10/22/2016	0.5	3.6	---	2.3	---	---	---	---	---	---	---	---	---	---	
AA1322-3-2.5	10/22/2016	2.5	4.7	---	1.3	---	---	---	---	---	---	---	---	---	---	
Composite D3	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA1322-1-0.5, AA1322-2-0.5, and AA1322-3-0.5
AA1322-4-0.5	10/22/2016	0.5	4.8	---	1.8	---	---	---	---	---	---	---	---	---	---	
AA1322-4-2.5	10/22/2016	2.5	4.9	---	1.8	---	---	---	---	---	---	---	---	---	---	
AA1322-5-0.5	10/22/2016	0.5	6.6	---	1.9	---	---	---	---	---	---	---	---	---	---	
AA1322-5-2.5	10/22/2016	2.5	3.4	---	1.3	---	---	---	---	---	---	---	---	---	---	
AA1322-6-0.5	10/22/2016	0.5	2.7	---	3.0	---	---	---	---	---	---	---	---	---	---	
AA1322-6-2.5	10/22/2016	2.5	2.2	---	1.6	---	---	---	---	---	---	---	---	---	---	
Composite D4	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA1322-4-0.5, AA1322-5-0.5, and AA1322-6-0.5
AA828-1-0.5	10/23/2016	0.5	2.1	---	3.8	---	---	---	---	---	---	---	---	---	---	
AA828-1-2.5	10/23/2016	2.5	2.6	---	2.6	---	---	---	---	---	---	---	---	---	---	
AA828-2-0.5	10/23/2016	0.5	2.8	---	2.5	---	---	---	---	---	---	---	---	---	---	
AA828-2-2.5	10/23/2016	2.5	2.6	---	1.6	---	---	---	---	---	---	---	---	---	---	
AA828-3-0.5	10/23/2016	0.5	2.7	---	1.6	---	---	---	---	---	---	---	---	---	---	
AA828-3-2.5	10/23/2016	2.5	2.6	---	1.1	---	---	---	---	---	---	---	---	---	---	
Composite D5	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA828-1-0.5, AA828-2-0.5, and AA828-3-0.5
AA828-4-0.5	10/22/2016	0.5	10	---	16	---	---	---	---	---	---	---	---	---	---	
AA828-4-2.5	10/22/2016	2.5	3.9	---	1.4	---	---	---	---	---	---	---	---	---	---	
AA828-5-0.5	10/22/2016	0.5	3.5	---	2.0	---	---	---	---	---	---	---	---	---	---	
AA828-5-0.5 DUP	10/22/2016	0.5	3.9	---	1.9	---	---	---	---	---	---	---	---	---	---	
AA828-5-2.5	10/22/2016	2.5	2.3	---	1.3	---	---	---	---	---	---	---	---	---	---	
AA828-6-0.5	10/22/2016	0.5	2.5	---	1.8	---	---	---	---	---	---	---	---	---	---	
AA828-6-2.5	10/22/2016	2.5	2.2	---	1.9	---	---	---	---	---	---	---	---	---	---	
AA828-6-2.5 DUP	10/22/2016	2.5	2.6	---	1.4	---	---	---	---	---	---	---	---	---	---	
Composite D6	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA828-4-0.5, AA828-5-0.5, and AA828-6-0.5
AA651/683-1-0.5	10/23/2016	0.5	2.7	---	2.3	---	---	---	---	---	---	---	---	---	---	
AA651/683-1-2.5	10/23/2016	2.5	2.6	---	1.3	---	---	---	---	---	---	---	---	---	---	
AA651/683-2-0.5	10/23/2016	0.5	2.5	---	5.6	---	---	---	---	---	---	---	---	---	---	
AA651/683-2-2.5	10/23/2016	2.5	1.6	---	1.1	---	---	---	---	---	---	---	---	---	---	
AA651/683-2-2.5 DUP	10/23/2016	2.5	2.6	---	1.5	---	---	---	---	---	---	---	---	---	---	
AA651/683-3-0.5	10/23/2016	0.5	2.2	---	2.0	---	---	---	---	---	---	---	---	---	---	
AA651/683-3-0.5 DUP	10/23/2016	0.5	4.2	---	2.6	---	---	---	---	---	---	---	---	---	---	
AA651/683-3-2.5	10/23/2016	2.5	1.9	---	24	---	---	---	---	---	---	---	---	---	---	
Composite D7	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA651/683-1-0.5, AA651/683-2-0.5, and AA651/683-3-0.5
AA651/683-4-0.5	10/23/2016	0.5	2.6	---	6.6	---	---	---	---	---	---	---	---	---	---	
AA651/683-4-2.5	10/23/2016	2.5	4.8	---	2.3	---	---	---	---	---	---	---	---	---	---	
AA651/683-5-0.5	10/23/2016	0.5	3.2	---	1.6	---	---	---	---	---	---	---	---	---	---	
AA651/683-5-2.5	10/23/2016	2.5	7.3	---	1.0J	---	---	---	---	---	---	---	---	---	---	



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Sample Location	Sample Date	Depth (feet bgs)	Analyses and Analytical Methods													Comments
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			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
AA651/683-6-0.5	10/23/2016	0.5	3.3	---	1.9	---	---	---	---	---	---	---	---	---	---	
AA651/683-6-2.5	10/23/2016	2.5	2.0	---	1.4	---	---	---	---	---	---	---	---	---	---	
Composite D8	N/A	0.5	---	---	---	---	---	ND<2.0	0.41J	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA651/683-4-0.5, AA651/683-5-0.5, and AA651/683-6-0.5
AA-831-1-0.5	10/23/2016	0.5	3.4	---	2.5	---	---	---	---	---	---	---	---	---	---	
AA-831-1-2.5	10/23/2016	2.5	3.0	---	2.4	---	---	---	---	---	---	---	---	---	---	
AA-831-2-0.5	10/23/2016	0.5	2.9	---	5.4	---	---	---	---	---	---	---	---	---	---	
AA-831-2-2.5	10/23/2016	2.5	5.4	---	2.2	---	---	---	---	---	---	---	---	---	---	
AA-831-3-0.5	10/23/2016	0.5	2.6	---	4.6	---	---	---	---	---	---	---	---	---	---	
AA-831-3-0.5 DUP	10/23/2016	0.5	3.9	---	2.8	---	---	---	---	---	---	---	---	---	---	
AA-831-3-2.5	10/23/2016	2.5	2.5	---	2.0	---	---	---	---	---	---	---	---	---	---	
Composite D9	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of AA831-1-0.5, AA831-2-0.5, and AA831-3-0.5
AA-831-4-0.5	10/23/2016	0.5	3.0	---	2.7	---	---	---	---	---	---	---	---	---	---	
AA-831-4-2.5	10/23/2016	2.5	2.2	---	1.7	---	---	---	---	---	---	---	---	---	---	
AA-831-4-2.5 DUP	10/23/2016	2.5	3.1	---	1.6	---	---	---	---	---	---	---	---	---	---	
AA-831-5-0.5	10/23/2016	0.5	1.8	---	2.5	---	---	---	---	---	---	---	---	---	---	
AA-831-5-2.5	10/23/2016	2.5	2.7	---	2.0	---	---	---	---	---	---	---	---	---	---	
AA-831-6-0.5	10/23/2016	0.5	2.5	---	3.0	---	---	---	---	---	---	---	---	---	---	
AA-831-6-2.5	10/23/2016	2.5	2.8	---	2.4	---	---	---	---	---	---	---	---	---	---	
Composite D10	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<16	Composite of AA831-4-0.5, AA831-5-0.5, and AA831-6-0.5
Composite D10 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	0.22J	ND<1.0	1.1J	ND<2.0	ND<1.0	ND<16	Composite of AA831-4-0.5, AA831-5-0.5, and AA831-6-0.5
X-8-0.5	10/22/2016	0.5	2.6	---	2.2	---	---	---	---	---	---	---	---	---	---	
X-8-2.5	10/22/2016	2.5	1.8	---	1.6	---	---	---	---	---	---	---	---	---	---	
X-9-0.5	10/22/2016	0.5	3.4	---	1.1	---	---	---	---	---	---	---	---	---	---	
X-9-2.5	10/22/2016	2.5	2.6	---	1.2	---	---	---	---	---	---	---	---	---	---	
X-10-0.5	10/22/2016	0.5	2.0	---	1.3	---	---	---	---	---	---	---	---	---	---	
X-10-2.5	10/22/2016	2.5	0.85J	---	1.2	---	---	---	---	---	---	---	---	---	---	
X-11-0.5	10/22/2016	0.5	2.3	---	3.8	---	---	---	---	---	---	---	---	---	---	
X-11-2.5	10/22/2016	2.5	1.4	---	1.6	---	---	---	---	---	---	---	---	---	---	
Composite D11	N/A	0.5	---	---	---	---	---	ND<2.0	0.39J	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of X8-0.5, X9-0.5, X10-0.5, and X11-0.5
Y-8-0.5	10/22/2016	0.5	2.8	---	1.4	---	---	---	---	---	---	---	---	---	---	
Y-8-0.5 DUP	10/22/2016	0.5	3.5	---	1.7	---	---	---	---	---	---	---	---	---	---	
Y-8-2.5	10/22/2016	2.5	1.2	---	1.3	---	---	---	---	---	---	---	---	---	---	
Y-9-0.5	10/22/2016	0.5	2.0	---	1.5	---	---	---	---	---	---	---	---	---	---	
Y-9-2.5	10/22/2016	2.5	2.0	---	1.4	---	---	---	---	---	---	---	---	---	---	
Y-9-2.5 DUP	10/22/2016	2.5	2.9	---	1.3	---	---	---	---	---	---	---	---	---	---	
Y-10-0.5	10/22/2016	0.5	1.2	---	0.68J	---	---	---	---	---	---	---	---	---	---	
Y-10-2.5	10/22/2016	2.5	4.6	---	1.7	---	---	---	---	---	---	---	---	---	---	
Y-11-0.5	10/22/2016	0.5	3.1	---	2.8	---	---	---	---	---	---	---	---	---	---	
Y-11-2.5	10/22/2016	2.5	4.1	---	1.8	---	---	---	---	---	---	---	---	---	---	
Composite D12	N/A	0.5	---	---	---	---	---	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	---	Composite of Y8-0.5, Y9-0.5, Y10-0.5, and Y11-0.5

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Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
Area 9 - Southeast Portion of Campus																
V-13-0.5	10/22/2016	0.5	10	---	6.3	---	---	---	---	---	---	---	---	---	---	
V-13-2.5	10/22/2016	2.5	1.8	---	2.0	---	---	---	---	---	---	---	---	---	---	
V-14-0.5	10/22/2016	0.5	3.3	---	54	---	---	---	---	---	---	---	---	---	---	
V-14-2.5	10/22/2016	2.5	1.5	---	4.1	---	---	---	---	---	---	---	---	---	---	
V-15-0.5	10/22/2016	0.5	4.1	---	46	---	---	---	---	---	---	---	---	---	---	
V-15-2.5	10/22/2016	2.5	2.6	---	27	---	---	---	---	---	---	---	---	---	---	
Composite E1	N/A	0.5	---	---	---	---	---	ND<2.0	7.2	6.7	2.6	30	0.49J	3.0	---	Composite of V13-0.5, V14-0.5, and V15-0.5
V-16-0.25	11/21/2016	0.25	---	---	14	---	---	---	---	---	---	---	---	---	---	
V-16-0.5	10/22/2016	0.5	2.9	---	390	2.2	---	---	---	---	---	---	---	---	---	
V-16-2.5	10/22/2016	2.5	4.1	---	25	---	---	---	---	---	---	---	---	---	---	
V-16a-0.25	11/21/2016	0.25	---	---	29	---	---	---	---	---	---	---	---	---	---	
V-16a-0.5	11/21/2016	0.5	---	---	21	---	---	---	---	---	---	---	---	---	---	
V-16b-0.25	11/21/2016	0.25	---	---	12	---	---	---	---	---	---	---	---	---	---	
V-16b-0.5	11/21/2016	0.5	---	---	19	---	---	---	---	---	---	---	---	---	---	
V-16b-0.5 DUP	11/21/2016	0.5	---	---	22	---	---	---	---	---	---	---	---	---	---	
V-16c-0.25	11/21/2016	0.25	---	---	15	---	---	---	---	---	---	---	---	---	---	
V-16c-0.5	11/21/2016	0.5	---	---	29	---	---	---	---	---	---	---	---	---	---	
V-16d-0.25	11/21/2016	0.25	---	---	7.6	---	---	---	---	---	---	---	---	---	---	
V-16d-0.5	11/21/2016	0.5	---	---	12	---	---	---	---	---	---	---	---	---	---	
V-17-0.5	10/22/2016	0.5	5.8	---	12	---	---	---	---	---	---	---	---	---	---	
V-17-2.5	10/22/2016	2.5	2.3	---	23	---	---	---	---	---	---	---	---	---	---	
Composite E2	N/A	0.5	---	---	---	---	---	ND<2.0	3.8	3.5	1.3	13	0.26J	1.2	---	Composite of V16-0.5 and V17-0.5
W-12-0.5	10/22/2016	0.5	6.7	---	12	---	---	---	---	---	---	---	---	---	---	
W-12-2.5	10/22/2016	2.5	2.3	---	2.0	---	---	---	---	---	---	---	---	---	---	
W-13-0.5	10/22/2016	0.5	3.5	---	1.2	---	---	---	---	---	---	---	---	---	---	
W-13-2.5	10/22/2016	2.5	3.2	---	4.5	---	---	---	---	---	---	---	---	---	---	
W-14-0.5	10/22/2016	0.5	2.4	---	1.5	---	---	---	---	---	---	---	---	---	---	
W-14-0.5 DUP	10/22/2016	0.5	12	---	21	---	---	---	---	---	---	---	---	---	---	
W-14-2.5	10/22/2016	2.5	3.1	---	250	17	0.47	---	---	---	---	---	---	---	---	
W-14-3.5	3/25/2017	3.5	---	---	29	---	---	---	---	---	---	---	---	---	---	
W-14a-0.5	11/21/2016	0.5	---	---	6300	1.3	---	---	---	---	---	---	---	---	---	
W-14a-2.5	11/21/2016	2.5	---	---	7.9	---	---	---	---	---	---	---	---	---	---	
W-14a-3.5	11/21/2016	3.5	---	---	6.0	---	---	---	---	---	---	---	---	---	---	
W-14b-0.5	11/21/2016	0.5	---	---	10	---	---	---	---	---	---	---	---	---	---	
W-14b-2.5	11/21/2016	2.5	---	---	32	---	---	---	---	---	---	---	---	---	---	
W-14b-2.5 DUP	11/21/2016	2.5	---	---	10	---	---	---	---	---	---	---	---	---	---	
W-14b-3.5	11/21/2016	3.5	---	---	3.3	---	---	---	---	---	---	---	---	---	---	
W-14c-0.5	11/21/2016	0.5	---	---	9.8	---	---	---	---	---	---	---	---	---	---	
W-14c-0.5 DUP	11/21/2016	0.5	---	---	8.4	---	---	---	---	---	---	---	---	---	---	
W-14c-0.5	6/14/2017	0.5	14	---	---	---	---	---	---	---	---	---	---	---	---	
W-14c-0.5 DUP	6/14/2017	0.5	13	---	---	---	---	---	---	---	---	---	---	---	---	
W-14c-2.5	11/21/2016	2.5	---	---	99	3.4	---	---	---	---	---	---	---	---	---	
W-14c-2.5	6/14/2017	2.5	2.5	---	---	---	---	---	---	---	---	---	---	---	---	
W-14c-3.5	11/21/2016	3.5	---	---	43	---	---	---	---	---	---	---	---	---	---	

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			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A							PCBs EPA 8082	
			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
W-14d-0.5	11/21/2016	0.5	---	---	9.3	---	---	---	---	---	---	---	---	---	---	
W-14d-2.5	11/21/2016	2.5	---	---	11	---	---	---	---	---	---	---	---	---	---	
W-14d-3.5	11/21/2016	3.5	---	---	3.9	---	---	---	---	---	---	---	---	---	---	
Composite E3	N/A	0.5	---	---	---	---	---	ND<2.0	2.6	0.74J	2.1	20	0.28J	1.8	---	Composite of W12-0.5, W13-0.5, and W14-0.5
W-15-0.5	10/22/2016	0.5	3.4	---	1.9	---	---	---	---	---	---	---	---	---	---	
W-15-2.5	10/22/2016	2.5	2.3	---	14	---	---	---	---	---	---	---	---	---	---	
W-15-2.5 DUP	10/22/2016	2.5	3.6	---	6.3	---	---	---	---	---	---	---	---	---	---	
W-16-0.5	10/22/2016	0.5	3.8	---	11	---	---	---	---	---	---	---	---	---	---	
W-16-2.5	10/22/2016	2.5	2.4	---	8.8	---	---	---	---	---	---	---	---	---	---	
W-17-0.5	10/22/2016	0.5	3.8	---	23	---	---	---	---	---	---	---	---	---	---	
W-17-2.5	10/22/2016	2.5	2.6	---	8.4	---	---	---	---	---	---	---	---	---	---	
Composite E4	N/A	0.5	---	---	---	---	---	ND<2.0	0.65J	1.5J	0.90J	9.2	ND<2.0	1.2	---	Composite of W15-0.5, W16-0.5, and W17-0.5
W-18-0.5	6/14/2017	0.5	11	---	---	---	---	---	---	---	---	---	---	---	---	
W-18-2.5	6/14/2017	2.5	2.4	---	---	---	---	---	---	---	---	---	---	---	---	
W-18a-0.5	6/14/2017	0.5	3.0	---	---	---	---	---	---	---	---	---	---	---	---	
W-18a-2.5	6/14/2017	2.5	2.5	---	---	---	---	---	---	---	---	---	---	---	---	
X-12-0.5	10/22/2016	0.5	13	---	13	---	---	---	---	---	---	---	---	---	---	
X-12-2.5	10/22/2016	2.5	3.1	---	3.3	---	---	---	---	---	---	---	---	---	---	
X-12a-0.5	6/14/2017	0.5	12	---	---	---	---	---	---	---	---	---	---	---	---	
X-12a-2.5	6/14/2017	2.5	1.7	---	---	---	---	---	---	---	---	---	---	---	---	
X-12b-0.5	6/14/2017	0.5	6.5	---	---	---	---	---	---	---	---	---	---	---	---	
X-12b-2.5	6/14/2017	2.5	3.1	---	---	---	---	---	---	---	---	---	---	---	---	
X-12c-0.5	6/14/2017	0.5	12	---	---	---	---	---	---	---	---	---	---	---	---	
X-12c-2.5	6/14/2017	2.5	3.8	---	---	---	---	---	---	---	---	---	---	---	---	
X-13-0.5	10/22/2016	0.5	4.1	---	5.3	---	---	---	---	---	---	---	---	---	---	
X-13-2.5	10/22/2016	2.5	2.7	---	41	---	---	---	---	---	---	---	---	---	---	
X-14-0.5	10/22/2016	0.5	13	---	13	---	---	---	---	---	---	---	---	---	---	
X-14-2.5	10/22/2016	2.5	3.0	---	80	1.5	---	---	---	---	---	---	---	---	---	
X-14-3.5	3/25/2017	3.5	---	---	17	---	---	---	---	---	---	---	---	---	---	
X-14b-0.5	11/21/2016	0.5	---	---	11	---	---	---	---	---	---	---	---	---	---	
X-14b-0.5	6/14/2017	0.5	14	---	---	---	---	---	---	---	---	---	---	---	---	
X-14b-0.5 DUP	6/14/2017	0.5	9.8	---	---	---	---	---	---	---	---	---	---	---	---	
X-14b-2.5	11/21/2016	2.5	---	---	18	---	---	---	---	---	---	---	---	---	---	
X-14b-2.5	6/14/2017	2.5	2.9	---	---	---	---	---	---	---	---	---	---	---	---	
X-14b-3.5	11/21/2016	3.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
X-14c-0.5	11/21/2016	0.5	---	---	9.8	---	---	---	---	---	---	---	---	---	---	
X-14c-0.5	6/14/2017	0.5	9.2	---	---	---	---	---	---	---	---	---	---	---	---	
X-14c-2.5	11/21/2016	2.5	---	---	8.7	---	---	---	---	---	---	---	---	---	---	
X-14c-2.5 DUP	11/21/2016	2.5	---	---	8.6	---	---	---	---	---	---	---	---	---	---	
X-14c-2.5	6/14/2017	2.5	1.7	---	---	---	---	---	---	---	---	---	---	---	---	
X-14c-3.5	11/21/2016	3.5	---	---	13	---	---	---	---	---	---	---	---	---	---	
X-14d-0.5	11/21/2016	0.5	---	---	5.9	---	---	---	---	---	---	---	---	---	---	
X-14d-0.5	6/14/2017	0.5	3.9	---	---	---	---	---	---	---	---	---	---	---	---	
X-14d-2.5	11/21/2016	2.5	---	---	10	---	---	---	---	---	---	---	---	---	---	
X-14d-2.5	6/14/2017	2.5	2.6	---	---	---	---	---	---	---	---	---	---	---	---	
X-14d-3.5	11/21/2016	3.5	---	---	4.5	---	---	---	---	---	---	---	---	---	---	

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			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane			
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg		
Composite E5	N/A	0.5	---	---	---	---	---	1.1J	1.9J	0.99J	2.3	29	ND<2.0	2.4	---	Composite of X12-0.5, X13-0.5, and X14-0.5	
X-15-0.5	10/22/2016	0.5	9.0	---	10	---	---	---	---	---	---	---	---	---	---		
X-15-2.5	10/22/2016	2.5	6.0	---	8.2	---	---	---	---	---	---	---	---	---	---		
X-16-0.5	10/22/2016	0.5	9.1	---	8.5	---	---	---	---	---	---	---	---	---	---		
X-16-2.5	10/22/2016	2.5	2.3	---	5.0	---	---	---	---	---	---	---	---	---	---		
X-17-0.5	10/22/2016	0.5	14	---	9.0	---	---	---	---	---	---	---	---	---	---		
X-17-0.5 DUP	10/22/2016	0.5	15	---	8.7	---	---	---	---	---	---	---	---	---	---		
X-17-2.5	10/22/2016	2.5	2.7	---	7.2	---	---	---	---	---	---	---	---	---	---		
X-17a-0.5	11/21/2016	0.5	8.5	---	---	---	---	---	---	---	---	---	---	---	---		---
X-17b-0.5	11/21/2016	0.5	12	---	---	---	---	---	---	---	---	---	---	---	---		---
X-17b-0.5 DUP	11/21/2016	0.5	11	---	---	---	---	---	---	---	---	---	---	---	---		---
X-17b-2.5	11/21/2016	2.5	3.7	---	---	---	---	---	---	---	---	---	---	---	---		---
X-17c-0.5	11/21/2016	0.5	9.9	---	---	---	---	---	---	---	---	---	---	---	---		---
X-17d-0.5	11/21/2016	0.5	11	---	---	---	---	---	---	---	---	---	---	---	---		---
X-18-0.5	3/25/2017	0.5	13	---	---	---	---	---	---	---	---	---	---	---	---		---
X-18-2.5	3/25/2017	2.5	4.2	---	---	---	---	---	---	---	---	---	---	---	---		---
X-18a-0.5	3/25/2017	0.5	13	---	---	---	---	---	---	---	---	---	---	---	---		---
X-18a-2.5	3/25/2017	2.5	3.1	---	---	---	---	---	---	---	---	---	---	---	---		---
X-18c-0.5	3/25/2017	0.5	14	---	---	---	---	---	---	---	---	---	---	---	---		---
X-18c-2.5	3/25/2017	2.5	2.5	---	---	---	---	---	---	---	---	---	---	---	---	---	
Composite E6	N/A	0.5	---	---	---	---	---	1.4J	3.4	1.4J	2.0	33	0.37J	3.1	---	Composite of X15-0.5, X16-0.5, and X17-0.5	
Y-12-0.5	10/22/2016	0.5	8.5	---	12	---	---	---	---	---	---	---	---	---	---		---
Y-12-2.5	10/22/2016	2.5	1.9	---	4.1	---	---	---	---	---	---	---	---	---	---		---
Y-12-2.5 DUP	10/22/2016	2.5	3.1	---	4.0	---	---	---	---	---	---	---	---	---	---		---
Y-13-0.5	10/22/2016	0.5	10	---	8.9	---	---	---	---	---	---	---	---	---	---		---
Y-13-2.5	10/22/2016	2.5	3.0	---	30	---	---	---	---	---	---	---	---	---	---		---
Y-14-0.5	10/22/2016	0.5	6.8	---	8.2	---	---	---	---	---	---	---	---	---	---		---
Y-14-2.5	10/22/2016	2.5	2.8	---	4.4	---	---	---	---	---	---	---	---	---	---		---
Composite E7	N/A	0.5	---	---	---	---	---	ND<2.0	0.65J	0.32J	0.58J	5.8J	ND<2.0	0.47J	ND<16		Composite of Y12-0.5, Y13-0.5, and Y14-0.5
Y-15-0.5	10/22/2016	0.5	3.6	---	8.9	---	---	---	---	---	---	---	---	---	---		---
Y-15-2.5	10/22/2016	2.5	2.4	---	8.0	---	---	---	---	---	---	---	---	---	---		---
Y-16-0.5	10/22/2016	0.5	2.6	---	6.1	---	---	---	---	---	---	---	---	---	---		---
Y-16-2.5	10/22/2016	2.5	8.9	---	11	---	---	---	---	---	---	---	---	---	---		---
Y-17-0.5	10/22/2016	0.5	16	---	12	---	---	---	---	---	---	---	---	---	---		---
Y-17-2.5	10/22/2016	2.5	2.6	---	7.5	---	---	---	---	---	---	---	---	---	---		---
Y-17b-0.5	11/21/2016	0.5	4.9	---	---	---	---	---	---	---	---	---	---	---	---		---
Y-17c-0.5	11/21/2016	0.5	14	---	---	---	---	---	---	---	---	---	---	---	---		---
Y-17c-2.5	11/21/2016	2.5	2.6	---	---	---	---	---	---	---	---	---	---	---	---		---
Y-17d-0.5	11/21/2016	0.5	4.7	---	---	---	---	---	---	---	---	---	---	---	---		---
Y-17d-0.5 DUP	11/21/2016	0.5	3.2	---	---	---	---	---	---	---	---	---	---	---	---	---	
Composite E8	N/A	0.5	---	---	---	---	---	ND<2.0	1.1J	0.75J	0.42J	3.9J	ND<2.0	0.34J	---	Composite of Y15-0.5, Y16-0.5, and Y17-0.5	
Composite E8 DUP	N/A	0.5	---	---	---	---	---	ND<2.0	0.87J	0.47J	0.80J	7.4J	ND<2.0	1.3	---		Composite of Y15-0.5, Y16-0.5, and Y17-0.5
Z-17-0.5	3/25/2017	0.5	11	---	---	---	---	---	---	---	---	---	---	---	---	---	
Z-17-2.5	3/25/2017	2.5	3.0	---	---	---	---	---	---	---	---	---	---	---	---	---	

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			TTLC	STLC	TTLC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane		
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
Z-17b-0.5	3/25/2017	0.5	4.6	---	---	---	---	---	---	---	---	---	---	---	---	
Z-17b-2.5	3/25/2017	2.5	3.4	---	---	---	---	---	---	---	---	---	---	---	---	
Z-17d-0.5	3/25/2017	0.5	10	---	---	---	---	---	---	---	---	---	---	---	---	
Z-17d-2.5	3/25/2017	2.5	2.8	---	---	---	---	---	---	---	---	---	---	---	---	
Units:			mg/L		mg/L			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Equipment Blanks																
EB-1-10/8/16	10/8/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-1-10/9/16	10/9/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-2-10/9/16	10/9/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-4-10/15/16	10/15/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-5-10/15/16	10/15/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-6-10/16/16	10/16/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-7-10/16/16	10/16/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-8-10/22/16	10/22/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-9-10/22/16	10/22/2016	-	ND<0.010	---	0.0066	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-10-10/22/16	10/22/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-11-10/23/16	10/23/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-12-10/23/16	10/23/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-13-10/29/16	10/29/2016	-	ND<0.050	---	ND<0.025	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-14-10/29/16	10/29/2016	-	ND<0.050	---	ND<0.025	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-15-10/30/16	10/30/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.05	ND<0.05	ND<0.05	ND<0.02	ND<0.25	ND<0.05	ND<0.02	ND	
EB-16-10/30/16	10/30/2016	-	ND<0.010	---	ND<0.0050	---	---	ND<0.06	ND<0.06	ND<0.06	ND<0.03	ND<0.28	ND<0.06	ND<0.03	ND	
EB-17	11/21/2016	-	ND<0.010	---	ND<0.0050	---	---	---	---	---	---	---	---	---	---	
EB-18	11/21/2016	-	ND<0.010	---	0.013	---	---	---	---	---	---	---	---	---	---	
EB-19	11/22/2016	-	ND<0.010	---	ND<0.0050	---	---	---	---	---	---	---	---	---	---	
EB-20	11/22/2016	-	ND<0.010	---	ND<0.0050	---	---	---	---	---	---	---	---	---	---	
EB-21	11/23/2016	-	ND<0.010	---	0.0030 J	---	---	---	---	---	---	---	---	---	---	
EB-22	11/23/2016	-	ND<0.010	---	ND<0.0050	---	---	---	---	---	---	---	---	---	---	
EB-23	12/21/2016	-	ND<0.010	---	0.0031 J	---	---	---	---	---	---	---	---	---	---	
EB-24-3/25/17	3/25/2017	-	ND<0.010	---	ND<0.0050	---	---	---	---	---	---	---	---	---	---	
EB-25-3/25/17	3/25/2017	-	0.0093 J	---	0.0029 J	---	---	---	---	---	---	---	---	---	---	
EB-26-3/26/17	3/26/2017	-	0.0090 J	---	ND<0.0050	---	---	---	---	---	---	---	---	---	---	
EB-27-3/26/17	3/26/2017	-	ND<0.010	---	ND<0.0050	---	---	---	---	---	---	---	---	---	---	
EB-28-6/14/17	6/14/2017	-	ND<0.010	---	0.0032 J	---	---	---	---	---	---	---	---	---	---	
EB-29-6/14/17	6/14/2017	-	ND<0.010	---	0.0034 J	---	---	---	---	---	---	---	---	---	---	

Table 1 General Site Screening Results - Lead-Based Paint and Termiticide Sampling Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California																
Sample Location	Sample Date	Depth (feet bgs)	Analyses and Analytical Methods													Comments
			Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			Organochlorine Pesticides (OCPs) EPA 8081A						PCBs EPA 8082		
			TTLIC	STLC	TTLIC	STLC	TCLP	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin		gamma-Chlordane	
Units:			mg/kg	mg/L	mg/kg	mg/L	mg/L	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
Notes: Table summarizes arsenic and lead laboratory analytical reports for soil samples. Samples with detectable concentrations presented in bold font. Arsenic screening level based on California background level. TTLIC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015). OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015). LAUSD = Los Angeles Unified School District ID = Identification bgs = below ground surface EPA = Environmental Protection Agency --- = not analyzed mg/kg = milligrams per kilogram mg/L = milligrams per liter µg/L = micrograms per liter DUP = Duplicate of preceeding sample J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration. (1) = 3.8J Aroclor 1260 (2) = 11J Aroclor 1260																

Table 2 Summary of Hoist and Clarifier Soil Sample Results - TPH, VOCs, OCPs, PCBs, and Metals Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California																											
Sample Location	Date	Depth (feet bgs)	Total Petroleum Hydrocarbons (TPH) EPA Method 8015			VOCs EPA Method 8260B	SVOCs EPA Method 8270C	Organochlorine Pesticides (OCPs) EPA 8081A	Polychlorinated Biphenyls (PCBs) - EPA Method 8082	Metals - EPA Methods 6010B/7471A																	Comments
			Gasoline Range	Diesel Range (C10-22)	Motor Oil Range (C23-C36)					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
			Units: mg/kg	mg/kg	mg/kg					(µg/kg)	(µg/kg)	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Screening Level:			NA	NA	NA					12								80									
Hydraulic Hoist Samples																											
HL1-1-0.5-1.0	10/22/2016	0.5-1.0	---	2.6	3.2	---	---	---	ND<16	ND<2.0	1.3	72	0.34J	ND<1.0	7.5	3.7	6.5	2.1	0.03J	ND<1.0	5.7	ND<1.0	ND<1.0	ND<1.0	17	19	
HL1-1-2.0-2.5	10/22/2016	2.0-2.5	---	2.6	2.1	---	---	---	ND<16	ND<2.0	1.5	99	0.36J	ND<1.0	11	5.7	8.7	1.8	0.02J	ND<1.0	7.6	ND<1.0	ND<1.0	ND<1.0	32	32	
HL1-1-5.0-5.5	10/22/2016	5.0-5.5	---	3.1	2.2	---	---	---	ND<16	ND<2.0	1.4	42	0.16J	ND<1.0	8.0	3.6	5.2	1.3	0.03J	ND<1.0	5.8	ND<1.0	ND<1.0	ND<1.0	14	15	
HL1-1-9.5-10.0	10/22/2016	9.5-10.0	---	1.5	1.0	---	---	---	ND<16	ND<2.0	2.3	29	0.10J	ND<1.0	4.0	2.4	3.3	1.1	ND<0.10	0.20J	2.6	ND<1.0	ND<1.0	ND<1.0	19	11	
HL1-2-0.5-1.0	10/22/2016	0.5-1.0	---	3.2	3.6	---	---	---	ND<16	ND<2.0	ND<1.0	96	0.37J	ND<1.0	9.9	9.7	8.2	2.3	0.02J	ND<1.0	7.3	ND<1.0	ND<1.0	ND<1.0	22	27	
HL1-2-2.0-2.5	10/22/2016	2.0-2.5	---	1.4	1.3	---	---	---	ND<16	ND<2.0	1.4	120	0.47J	ND<1.0	14	5.4	13	3.1	0.05J	ND<1.0	9.3	ND<1.0	ND<1.0	ND<1.0	29	32	
HL1-2-5.0-5.5	10/22/2016	5.0-5.5	---	1.6	1.3	---	---	---	ND<16	ND<2.0	1.4	48	0.20J	ND<1.0	11	5.9	5.4	1.8	0.03J	ND<1.0	7.0	ND<1.0	ND<1.0	ND<1.0	25	15	
HL1-2-9.5-10.0	10/22/2016	9.5-10.0	---	3.6	2.2	---	---	---	ND<16	ND<2.0	1.2	39	0.19J	ND<1.0	11	4.1	4.9	1.4	0.03J	ND<1.0	6.3	ND<1.0	ND<1.0	ND<1.0	23	15	
HL1-2-9.5-10.0 Duplicate	10/22/2016	9.5-10.0	---	1.6	1.3	---	---	---	ND<16	ND<2.0	1.2	39	ND<1.0	0.11J	8.6	4.1	5.1	1.4	0.05J	ND<1.0	6.5	ND<1.0	ND<1.0	ND<1.0	19	16	
HL2-1-0.5-1.0	10/22/2016	0.5-1.0	---	2.0	1.6	---	---	---	ND<16	ND<2.0	1.7	75	0.25J	ND<1.0	9.5	4.6	8.0	5.0	0.03J	ND<1.0	6.0	ND<1.0	ND<1.0	0.56J	19	30	
HL2-1-2.0-2.5	10/22/2016	2.0-2.5	---	4.2	3.0	---	---	---	ND<16	ND<2.0	1.2	61	0.34J	ND<1.0	10	5.6	5.8	2.1	0.02J	ND<1.0	8.1	ND<1.0	ND<1.0	ND<1.0	24	17	
HL2-1-5.0-5.5	10/22/2016	5.0-5.5	---	1.3	1.5	---	---	---	ND<16	ND<2.0	0.77J	44	0.20J	ND<1.0	9.7	5.8	4.5	1.4	0.02J	ND<1.0	7.1	ND<1.0	ND<1.0	ND<1.0	18	17	
HL2-1-9.5-10.0	10/22/2016	9.5-10.0	---	ND<1.0	ND<1.0	---	---	---	ND<16	ND<2.0	1.7	17	0.09J	ND<1.0	3.2	1.7	2.6	0.72J	0.02J	1.1	1.9	ND<1.0	ND<1.0	ND<1.0	13	6.4	
HL2-2-0.5-1.0	10/22/2016	0.5-1.0	---	3.6	4.2	---	---	---	ND<16	ND<2.0	1.3	76	0.37J	ND<1.0	12	7.9	7.9	2.7	0.03J	ND<1.0	7.8	ND<1.0	ND<1.0	ND<1.0	27	23	
HL2-2-2.0-2.5	10/22/2016	2.0-2.5	---	1.9	1.4	---	---	---	ND<16	ND<2.0	0.89J	70	0.30J	ND<1.0	8.6	4.1	5.6	2.2	0.02J	ND<1.0	6.5	ND<1.0	ND<1.0	ND<1.0	21	19	
HL2-2-5.0-5.5	10/22/2016	5.0-5.5	---	1900	4700	---	---	---	ND<16	ND<2.0	1.1	70	0.23J	ND<1.0	11	5.3	5.9	1.6	0.03J	ND<1.0	8.9	ND<1.0	ND<1.0	ND<1.0	19	22	
HL2-2-10.0-10.5	10/22/2016	10.0-10.5	---	7.3	8.2	---	---	---	ND<16	ND<2.0	0.88J	38	ND<1.0	ND<1.0	2.7	1.1	2.6	0.79J	ND<0.10	0.52J	2.1	ND<1.0	ND<1.0	ND<1.0	10	5.9	
HL3-1-0.5-1.0	10/22/2016	0.5-1.0	---	1.8	1.8	---	---	---	ND<16	ND<2.0	ND<1.0	51	0.22J	ND<1.0	7.7	3.8	5.2	3.0	0.03J	ND<1.0	4.3	ND<1.0	ND<1.0	ND<1.0	16	17	
HL3-1-2.0-2.5	10/22/2016	2.0-2.5	---	2.3	2.3	---	---	---	ND<16	ND<2.0	ND<1.0	57	0.34J	ND<1.0	10	6.1	6.7	2.4	0.03J	ND<1.0	7.1	ND<1.0	ND<1.0	ND<1.0	24	26	
HL3-1-5.0-5.5	10/22/2016	5.0-5.5	---	3.8	3.0	---	---	---	ND<16	ND<2.0	1.1	59	0.30J	ND<1.0	12	4.2	5.0	1.6	0.03J	ND<1.0	8.1	ND<1.0	ND<1.0	ND<1.0	19	16	
HL3-1-5.0-5.5 Duplicate	10/22/2016	5.0-5.5	---	1.5	1.3	---	---	---	ND<16	ND<2.0	1.3	54	ND<1.0	ND<1.0	13	2.9	5.7	1.7	0.03J	ND<1.0	7.2	ND<1.0	ND<1.0	ND<1.0	19	18	
HL3-1-9.5-10.0	10/22/2016	9.5-10.0	---	2.4	1.6	---	---	---	ND<16	ND<2.0	1.1	65	0.06J	ND<1.0	2.5	1.2	2.0J	0.61J	ND<0.10	0.61J	2.5	ND<1.0	ND<1.0	ND<1.0	9.7	4.6	
HL3-2-0.5-1.0	10/22/2016	0.5-1.0	---	2.3	2.7	---	---	---	ND<16	ND<2.0	0.93J	69	0.27J	ND<1.0	7.5	3.1	7.4	2.2	0.03J	ND<1.0	4.4	ND<1.0	ND<1.0	ND<1.0	17	21	
HL3-2-2.0-2.5	10/22/2016	2.0-2.5	---	3.6	3.5	---	---	---	ND<16	ND<2.0	1.1	130	0.33J	ND<1.0	9.6	4.6	7.2	1.8	0.02J	ND<1.0	6.8	ND<1.0	ND<1.0	ND<1.0	23	23	
HL3-2-5.0-5.5	10/22/2016	5.0-5.5	---	2.0	2.3	---	---	---	ND<16	ND<2.0	ND<1.0	36	0.09J	ND<1.0	5.5	2.6	3.4	0.88J	ND<0.10	ND<1.0	2.8	ND<1.0	ND<1.0	ND<1.0	12	11	
HL3-2-9.5-10.0	10/22/2016	9.5-10.0	---	3.6	3.3	---	---	---	ND<16	ND<2.0	1.9	100	0.32J	ND<1.0	11	4.7	7.4	17	0.03J	ND<1.0	6.5	ND<1.0	ND<1.0	ND<1.0	24	37	
HL4-1-0.5-1.0	10/22/2016	0.5-1.0	---	3.0	13	---	---	---	ND<16	ND<2.0	1.5	140	0.37J	ND<1.0	13	6.6	9.3	2.8	ND<0.10	ND<1.0	9.3	ND<1.0	ND<1.0	ND<1.0	31	30	
HL4-1-2.0-2.5	10/22/2016	2.0-2.5	---	3.7	3.9	---	---	---	ND<16	ND<2.0	1.3	150	0.41J	ND<1.0	14	6.9	9.8	3.0	0.02J	ND<1.0	9.9	ND<1.0	ND<1.0	ND<1.0	28	32	
HL4-1-5.0-5.5	10/22/2016	5.0-5.5	---	1.1	1.0	---	---	---	ND<16	ND<2.0	1.6	99	0.42J	ND<1.0	14	4.2	7.0	2.9	0.02J	ND<1.0	8.8	ND<1.0	ND<1.0	ND<1.0	30	22	
HL4-1-9.5-10.0	10/22/2016	9.5-10.0	---	2.7	3.1	---	---	---	ND<16	ND<2.0	2.6	32	0.11J	ND<1.0	6.6	2.1	3.3	1.2	ND<0.10	0.47J	3.1	ND<1.0	ND<1.0	ND<1.0	34	8.8	
HL4-2-0.5-1.0	10/22/2016	0.5-1.0	---	5.5	11	---	---	---	(1)	ND<2.0	2.2	88	0.27J	ND<1.0	13	5.0	8.4	4.3	0.02J	ND<1.0	8.0	ND<1.0	ND<1.0</				

Table 2 Summary of Hoist and Clarifier Soil Sample Results - TPH, VOCs, OCPs, PCBs, and Metals Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California																											
Sample Location	Date	Depth (feet bgs)	Total Petroleum Hydrocarbons (TPH) EPA Method 8015			VOCs EPA Method 8260B	SVOCs EPA Method 8270C	Organochlorine Pesticides (OCPs) EPA 8081A	Polychlorinated Biphenyls (PCBs) - EPA Method 8082	Metals - EPA Methods 6010B/7471A																Comments	
			Gasoline Range	Diesel Range (C10-22)	Motor Oil Range (C23-C36)					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium		Zinc
		Units:	mg/kg	mg/kg	mg/kg	(µg/kg)	(µg/kg)	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
		Screening Level:	NA	NA	NA					12								80									
Undocumented Fill Samples																											
FILL-1-5.0-5.5	10/22/2016	5.0-5.5	ND<0.82	--	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---		Composite of FILL-1-2.0-2.5, FILL-1-5.0-5.5, and FILL-1-10-10.5
Composite 1	N/A	N/A	---	1.7	3.4	---	ND	ND	ND<16	ND<2.0	3.0	74	ND<1.0	0.13J	10	4.8	8.0	6.9	0.02J	ND<1.0	6.7	ND<1.0	ND<1.0	ND<1.0	33	23	
FILL-2-10.0-10.5	10/22/2016	10.0-10.5	ND<1.0	--	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		Composite of FILL-2-2.0-2.5, FILL-2-5.0-5.5, FILL-2-10-10.5, and FILL-2-13.5-14.0
Composite 2	N/A	N/A	---	1.5	1.8	---	ND	ND	ND<16	ND<2.0	3.5	42	ND<1.0	0.14J	10	2.6	5.1	1.3	0.02J	ND<1.0	5.6	ND<1.0	ND<1.0	ND<1.0	24	17	
Equipment Blanks																											
		Units:	mg/L	mg/L	mg/L	µg/L	µg/L		µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
EB-CL-10-22-16	10/22/2016	N/A	---	ND<0.05	ND<0.05	ND	ND	---	---	ND<0.010	ND<0.010	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0090	ND<0.0050	ND<0.00020	ND<0.0050	ND<0.0050	0.0042J	0.0007J	ND<0.015	ND<0.0030	0.0075J	
EB-HL-10-22-16	10/22/2016	N/A	---	ND<0.05	ND<0.05	---	---	---	ND	ND<0.010	ND<0.010	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0030	0.0030J	ND<0.0050	ND<0.00020	ND<0.0050	ND<0.0050	0.0046J	ND<0.0030	ND<0.015	ND<0.0030	0.0042J	
EB-UF-10-22-16	10/22/2016	N/A	ND<0.05	ND<0.05	ND<0.05	ND	ND	---	ND	0.0028J	ND<0.010	ND<0.0030	0.0005J	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0090	ND<0.0050	ND<0.00020	0.0011J	ND<0.0050	0.0058J	ND<0.0030	0.0028J	ND<0.0030	ND<0.025	
Trip Blanks																											
		Units:	mg/L	mg/L	mg/L	µg/L	µg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Trip Blank	10/22/2016	N/A	ND<0.05	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Trip Blank	10/22/2016	N/A	ND<0.05	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Notes:																											
Table summarizes TPH, VOC, PCB, and Metals laboratory analytical reports for all soil samples. Samples with detectable concentrations presented in bold font. Screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRR) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015). Samples exceeding the screening levels are highlighted yellow. * Samples analyzed past holding time for confirmation only. LAUSD = Los Angeles Unified School District ID = Identification bgs = Below ground surface C4-C11 = Indicates the hydrocarbon chain range EPA = Environmental Protection Agency µg/kg = Micrograms per kilogram mg/kg = Milligrams per kilogram µg/L = micrograms per liter PQL = Practical Quantitation Limit as identified in the laboratory reports NA = US EPA Region IX Regional Screening Level Resident Soil not available CS = Compound specific ND<2.0 = Constituent not detected at or above the laboratory PQL shown --- = Sample was not analyzed for the particular constituent (1) = 6.7J µg/kg Aroclor 1254 (2) = 180J µg/kg Phenol (3) = 1.5J µg/kg Carbon disulfide (4) = 190J µg/kg bis(2-ethylhexyl)phthalate																											

Table 3A

SUMMARY OF FIELD MEASUREMENTS AND LABORATORY ANALYSIS OF VAPOR SAMPLES
METHANE, HYDROGEN SULFIDE, OXYGEN, AND CARBON DIOXIDE
LAUSD Roosevelt High School
456 South Mathews Street
Los Angeles, California

Methane Probe	Date	Depth (feet)	Field Measurements						Results of Laboratory Analysis of Soil Gas Samples				
			Sample Collection Time	Pressure (IWC)	Methane (ppmv)	Hydrogen Sulfide (ppmv)	Oxygen (percent)	Carbon Dioxide (percent)	Sample Collection Time	Methane (ppm)	Hydrogen Sulfide (ppm)	Oxygen (ppm)	Carbon Dioxide (ppm)
M1	10/15/2016	7	7:39	0.0	0	0.0	18.9	1.62	--	--	--	--	--
	10/15/2016	12	7:44	0.0	25.1	0.0	15.1	2.38	--	--	--	--	--
	10/15/2016	22	7:47	0.0	300	0.0	9.8	9,480 ppmv	--	--	--	--	--
M1	10/16/2016	7	7:22	0.0	0	0.0	19.6	2.05	--	--	--	--	--
	10/16/2016	12	7:26	0.0	10	0.0	20.2	2.75	--	--	--	--	--
	10/16/2016	22	7:28	0.0	5	0.0	19.8	1.88	15:30	17	ND<1.0	126,000	44,000
M2	10/15/2016	7	8:37	0.0	100	0.0	18.7	1.25	--	--	--	--	--
	10/15/2016	12	8:38	0.0	290	0.0	15.9	1.50	--	--	--	--	--
	10/15/2016	22	8:39	0.0	910	0.0	14.1	2.84	--	--	--	--	--
M2	10/16/2016	7	7:47	0.0	130	0.0	18.9	1.30	--	--	--	--	--
	10/16/2016	12	7:52	0.0	55	0.0	18.2	1.35	--	--	--	--	--
	10/16/2016	22	7:55	0.0	630	0.0	17.4	3.70	--	--	--	--	--
M3	10/15/2016	7	7:55	0.0	0	0.0	17.6	2.48	--	--	--	--	--
	10/15/2016	12	8:01	0.0	0	0.0	16.1	2.56	--	--	--	--	--
	10/15/2016	22	8:04	0.0	45	0.0	13.4	900 ppmv	--	--	--	--	--
M3	10/16/2016	7	7:34	0.0	0	0.0	17.5	2.80	--	--	--	--	--
	10/16/2016	12	7:36	0.0	20	0.0	19.0	2.30	--	--	--	--	--
	10/16/2016	22	7:39	0.0	65	0.0	19.3	1.20	--	--	--	--	--
M3	3/19/2017	7	8:08	0.0	0.0	0.0	12.7	--	--	--	--	--	--
	3/19/2017	12	8:17	0.0	0.0	0.0	20.1	--	--	--	--	--	--
	3/19/2017	22	8:21	0.0	35	0.0	11.7	--	--	--	--	--	--
M4	10/15/2016	7	8:26	0.0	0	0.0	16.9	1.75	--	--	--	--	--
	10/15/2016	12	8:27	0.0	75	0.0	15.2	1.27	--	--	--	--	--
	10/15/2016	22	8:29	0.0	130	0.0	13.9	9,560 ppmv	--	--	--	--	--
M4	10/16/2016	7	8:00	0.0	0	0.0	17.7	2.35	--	--	--	--	--
	10/16/2016	12	8:03	0.0	0	0.0	15.9	3.75	--	--	--	--	--
	10/16/2016	22	8:06	0.0	20	0.0	16.1	3.70	--	--	--	--	--

Table 3A

SUMMARY OF FIELD MEASUREMENTS AND LABORATORY ANALYSIS OF VAPOR SAMPLES
METHANE, HYDROGEN SULFIDE, OXYGEN, AND CARBON DIOXIDE
LAUSD Roosevelt High School
456 South Mathews Street
Los Angeles, California

Methane Probe	Date	Depth (feet)	Field Measurements						Results of Laboratory Analysis of Soil Gas Samples				
			Sample Collection Time	Pressure (IWC)	Methane (ppmv)	Hydrogen Sulfide (ppmv)	Oxygen (percent)	Carbon Dioxide (percent)	Sample Collection Time	Methane (ppm)	Hydrogen Sulfide (ppm)	Oxygen (ppm)	Carbon Dioxide (ppm)
M5	10/15/2016	7	13:09	0.0	0	0.0	8.7	> 5.0	--	--	--	--	--
	10/15/2016	12	13:12	0.11	12	0.0	5.8	> 5.0	--	--	--	--	--
	10/15/2016	22	13:16	0.23	800	0.0	7.2	> 5.0	--	--	--	--	--
M5	10/16/2016	7	12:05	0.0	55	0.0	18.3	> 5.0	15:03	ND<1.2	ND<1.0	110,000	133,000
	10/16/2016	12	12:07	0.015	20	0.0	12.5	> 5.0	15:09	ND<1.2	ND<1.0	88,100	147,000
	10/16/2016	22	12:09	0.05	0	0.0	9.9	> 5.0	15:13	ND<1.2	ND<1.0	98,300	128,000
M5	3/19/2017	7	13:57	0.0	75	0.0	3.9	--	--	--	--	--	--
	3/19/2017	12	14:10	0.0	100	0.0	4.1	--	14:10	ND<1.2	--	--	--
	3/19/2017	22	14:13	0.0	35	0.0	8.2	--	--	--	--	--	--
M6	10/15/2016	7	8:14	0.0	0	0.0	17.9	1.12	--	--	--	--	--
	10/15/2016	12	8:15	0.0	0	0.0	17.8	1.16	--	--	--	--	--
M6	10/16/2016	7	8:18	0.0	0	0.0	18.0	1.30	--	--	--	--	--
	10/16/2016	12	8:20	0.0	0	0.0	19.0	1.38	--	--	--	--	--
M6	3/19/2017	7	13:40	0.02	0.0	0.0	17.8	--	--	--	--	--	--
	3/19/2017	12	13:47	0.03	0.0	0.0	18.3	--	--	--	--	--	--
M7	10/15/2016	7	8:49	0.0	0	0.0	17.3	2.25	--	--	--	--	--
M7	10/16/2016	7	8:11	0.0	30	0.0	18.8	2.9	--	--	--	--	--
M8	10/15/2016	7	12:57	0.0	0	0.0	19.0	4,880 ppmv	--	--	--	--	--
	10/15/2016	12	12:59	0.05	0	0.0	17.1	2.34	--	--	--	--	--
	10/15/2016	16	13:01	0.07	0	0.0	16.6	3.2	--	--	--	--	--
M8	10/16/2016	7	11:52	0.0	25	0.0	20.0	8,800 ppmv	--	--	--	--	--
	10/16/2016	12	11:53	0.01	0	0.0	17.8	2.8	--	--	--	--	--
	10/16/2016	16	11:55	0.01	0	0.0	17.5	3.1	--	--	--	--	--
M8	3/19/2017	7	13:20	0.0	10	0.0	18.8	--	--	--	--	--	--
	3/19/2017	12	13:27	0.0	23	0.0	16.5	--	--	--	--	--	--
	3/19/2017	16	13:32	0.03	28	0.0	16.8	--	--	--	--	--	--

Table 3A

SUMMARY OF FIELD MEASUREMENTS AND LABORATORY ANALYSIS OF VAPOR SAMPLES
METHANE, HYDROGEN SULFIDE, OXYGEN, AND CARBON DIOXIDE
LAUSD Roosevelt High School
456 South Mathews Street
Los Angeles, California

Methane Probe	Date	Depth (feet)	Field Measurements						Results of Laboratory Analysis of Soil Gas Samples				
			Sample Collection Time	Pressure (IWC)	Methane (ppmv)	Hydrogen Sulfide (ppmv)	Oxygen (percent)	Carbon Dioxide (percent)	Sample Collection Time	Methane (ppm)	Hydrogen Sulfide (ppm)	Oxygen (ppm)	Carbon Dioxide (ppm)
M9	10/15/2016	7	12:43	0.0	150	0.0	15.6	2.30	--	--	--	--	--
	10/15/2016	12	12:45	0.04	1,800	0.0	15.0	2.02	--	--	--	--	--
	10/15/2016	22	12:47	0.02	2,400	0.0	13.4	1.82	--	--	--	--	--
M9	10/16/2016	7	11:39	0.0	30	0.0	17.1	2.50	--	--	--	--	--
	10/16/2016	12	11:42	0.0	800	0.0	20.3	2.80	15:49	1.3	ND<1.0	170,000	37,600
	10/16/2016	22	11:44	0.0	120	0.0	20.9	1.30	15:58	120	ND<1.0	179,000	39,800
M9	3/19/2017	7	12:50	0.0	43	0.0	19.5	--	12:50	ND<1.2	--	--	--
	3/19/2017	12	13:04	0.0	23	0.0	14.6	--	--	--	--	--	--
	3/19/2017	22	13:12	0.0	--	--	--	--	--	--	--	--	--
M10	10/15/2016	7	9:14	0.0	0	0.0	18.7	1.51	--	--	--	--	--
	10/15/2016	12	9:15	0.0	80	0.0	18.6	1.80	--	--	--	--	--
M10	10/16/2016	7	8:26	0.0	0	0.0	19.1	1.50	--	--	--	--	--
	10/16/2016	12	8:28	0.0	0	0.0	19.8	1.98	--	--	--	--	--
M10	3/19/2017	7	9:13	0.01	0.0	0.0	17.1	--	--	--	--	--	--
	3/19/2017	12	9:21	--	43	0.0	17.0	--	--	--	--	--	--
M11	10/15/2016	7	9:07	0.0	12	0.0	18.1	1.65	--	--	--	--	--
	10/15/2016	12	9:08	0.0	0	0.0	18.1	1.87	--	--	--	--	--
M11	10/16/2016	7	8:34	0.0	0	0.0	20.7	2.10	--	--	--	--	--
	10/16/2016	12	8:36	0.0	0	0.0	19.7	2.20	--	--	--	--	--
M11	3/19/2017	7	8:58	0.0	0.0	0.0	17.9	--	--	--	--	--	--
	3/19/2017	12	9:06	0.0	0.0	0.0	17.9	--	--	--	--	--	--
M12	10/15/2016	7	9:40	0.0	0	0.0	18.5	1.50	--	--	--	--	--
	10/15/2016	12	9:43	0.0	23	0.0	18.2	5,730 ppmv	--	--	--	--	--
	10/15/2016	16	9:45	0.0	10	0.0	17.8	1.67	--	--	--	--	--
M12	10/16/2016	7	8:45	0.0	0	0.0	18.5	1.80	--	--	--	--	--
	10/16/2016	12	8:48	0.0	15	0.0	18.8	1.90	--	--	--	--	--
	10/16/2016	16	8:50	0.0	15	0.0	19.0	1.70	--	--	--	--	--
M12	3/19/2017	7	9:35	0.0	0.0	0.0	18.0	--	--	--	--	--	--
	3/19/2017	12	9:41	0.0	13	0.0	17.9	--	--	--	--	--	--
	3/19/2017	16	9:44	0.0	12	0.0	18.3	--	--	--	--	--	--

Table 3A

SUMMARY OF FIELD MEASUREMENTS AND LABORATORY ANALYSIS OF VAPOR SAMPLES
METHANE, HYDROGEN SULFIDE, OXYGEN, AND CARBON DIOXIDE
LAUSD Roosevelt High School
456 South Mathews Street
Los Angeles, California

Methane Probe	Date	Depth (feet)	Field Measurements						Results of Laboratory Analysis of Soil Gas Samples				
			Sample Collection Time	Pressure (IWC)	Methane (ppmv)	Hydrogen Sulfide (ppmv)	Oxygen (percent)	Carbon Dioxide (percent)	Sample Collection Time	Methane (ppm)	Hydrogen Sulfide (ppm)	Oxygen (ppm)	Carbon Dioxide (ppm)
M13	10/15/2016	7	12:33	0.0	0	0.0	12.0	2.80	--	--	--	--	--
	10/15/2016	12	12:40	0.0	21	0.0	13.2	> 5.0	--	--	--	--	--
M13	10/16/2016	7	11:31	0.0	0	0.0	17.4	3.20	--	--	--	--	--
	10/16/2016	12	11:33	0.0	0	0.0	16.3	> 5.0	--	--	--	--	--
M13	3/19/2017	20	12:25	0.0	20	0.0	13.3	--	--	--	--	--	--
		33	12:30	0.0	33	0.0	14.4	--	--	--	--	--	--
M14	10/15/2016	7	9:55	0.0	0	0.0	17.7	2.48	--	--	--	--	--
	10/15/2016	12	9:58	0.0	0	0.0	17.1	2.70	--	--	--	--	--
M14	10/16/2016	7	8:58	0.0	50	0.0	17.3	2.80	--	--	--	--	--
	10/16/2016	12	9:06	0.0	15	0.0	17.5	3.10	--	--	--	--	--
M14	3/19/2017	7	10:13	--	0.0	0.0	17.9	--	--	--	--	--	--
	3/19/2017	12	10:18	--	0.0	0.0	16.0	--	--	--	--	--	--
M15	10/15/2016	7	11:28	0.0	0	0.0	10.0	> 5.0	--	--	--	--	--
	10/15/2016	12	11:31	0.0	2,200	0.0	2.3	> 5.0	--	--	--	--	--
	10/15/2016	22	11:33	0.0	6,050	4.0	3.6	> 5.0	--	--	--	--	--
M15	10/16/2016	7	11:09	0.0	10	0.0	8.8	4.85	--	--	--	--	--
	10/16/2016	12	11:10	0.0	1,050	0.0	16.3	> 5.0	14:46	11,000	ND<1.0	33,700	248,000
	10/16/2016	22	11:13	0.0	380	0.0	19.2	> 5.0	14:52	11,000	ND<1.0	23,400	329,000
M15	3/19/2017	--	12:35	--	--	--	--	--	--	--	--	--	--
	3/19/2017	--	12:37	--	--	--	--	--	--	--	--	--	--
	3/19/2017	--	12:40	--	--	--	--	--	--	--	--	--	--
M16	10/15/2016	7	11:44	0.0	0	0.0	18.8	2.20	--	--	--	--	--
	10/15/2016	12	11:45	0.0	0	0.0	18.5	2.30	--	--	--	--	--
M16	10/16/2016	7	11:21	0.0	0	0.0	18.4	2.10	--	--	--	--	--
	10/16/2016	12	11:24	0.0	20	0.0	19.1	2.05	--	--	--	--	--
M16	3/19/2017	7	12:10	0.0	0.0	0.0	19.0	--	--	--	--	--	--
	3/19/2017	12	12:15	0.0	15	0.0	19.3	--	--	--	--	--	--

Table 3A

SUMMARY OF FIELD MEASUREMENTS AND LABORATORY ANALYSIS OF VAPOR SAMPLES
METHANE, HYDROGEN SULFIDE, OXYGEN, AND CARBON DIOXIDE
LAUSD Roosevelt High School
456 South Mathews Street
Los Angeles, California

Methane Probe	Date	Depth (feet)	Field Measurements						Results of Laboratory Analysis of Soil Gas Samples				
			Sample Collection Time	Pressure (IWC)	Methane (ppmv)	Hydrogen Sulfide (ppmv)	Oxygen (percent)	Carbon Dioxide (percent)	Sample Collection Time	Methane (ppm)	Hydrogen Sulfide (ppm)	Oxygen (ppm)	Carbon Dioxide (ppm)
M17	10/15/2016	7	10:16	0.0	3,600	0.0	14.1	9,800 ppmv	--	--	--	--	--
	10/15/2016	12	10:22	0.0	120	0.0	12.1	3.20	--	--	--	--	--
	10/15/2016	19	10:24	0.0	1,000	0.0	18.8	8,800 ppmv	--	--	--	--	--
M17	10/16/2016	7	9:15	0.0	170	0.0	15.6	1.37	--	--	--	--	--
	10/16/2016	12	9:17	0.0	85	0.0	11.7	4.98	--	--	--	--	--
	10/16/2016	19	9:20	0.0	95	0.0	13.8	8,990 ppmv	--	--	--	--	--
M17	3/19/2017	7	10:31	0.0	210	0.0	13.0	--	10:31	ND<1.2	--	--	--
	3/19/2017	12	10:37	0.0	150	0.0	12.7	--	10:37	ND<1.2	--	--	--
	3/19/2017	22	10:42	0.0	--	--	--	--	--	--	--	--	--
M18	10/15/2016	7	10:35	0.0	0	0.0	20.8	4,350 ppmv	--	--	--	--	--
	10/15/2016	12	10:36	0.0	0	0.0	19.9	7,250 ppmv	--	--	--	--	--
	10/15/2016	22	10:38	0.0	7,210	0.0	19.3	4,800 ppmv	--	--	--	--	--
M18	10/16/2016	7	9:56	0.0	0	0.0	20.3	4,900 ppmv	--	--	--	--	--
	10/16/2016	12	9:59	0.0	0	0.0	20.1	7,500 ppmv	--	--	--	--	--
	10/16/2016	22	10:02	0.0	65	0.0	20.0	--	--	--	--	--	--
M19	10/15/2016	7	11:13	0.01	0	0.0	20.8	3,890 ppmv	--	--	--	--	--
	10/15/2016	12	11:15	0.015	0	0.0	20.4	2,850 ppmv	--	--	--	--	--
M19	10/16/2016	7	10:59	0.0	40	0.0	20.9	2,330 ppmv	--	--	--	--	--
	10/16/2016	12	11:02	0.0	0	0.0	20.9	3,280 ppmv	--	--	--	--	--
M19	3/19/2017	7	11:50	0.0	5.0	0.0	20.1	--	--	--	--	--	--
	3/19/2017	12	11:56	0.0	7.0	0.0	20.4	--	11:56	ND<1.2	--	--	--

Table 3A

SUMMARY OF FIELD MEASUREMENTS AND LABORATORY ANALYSIS OF VAPOR SAMPLES
METHANE, HYDROGEN SULFIDE, OXYGEN, AND CARBON DIOXIDE
LAUSD Roosevelt High School
456 South Mathews Street
Los Angeles, California

Methane Probe	Date	Depth (feet)	Field Measurements						Results of Laboratory Analysis of Soil Gas Samples				
			Sample Collection Time	Pressure (IWC)	Methane (ppmv)	Hydrogen Sulfide (ppmv)	Oxygen (percent)	Carbon Dioxide (percent)	Sample Collection Time	Methane (ppm)	Hydrogen Sulfide (ppm)	Oxygen (ppm)	Carbon Dioxide (ppm)
M20	10/15/2016	7	10:48	0.0	2,300	0.0	6.4	4.90	--	--	--	--	--
	10/15/2016	12	10:50	0.0	24,500	34.5	6.2	3.90	--	--	--	--	--
	10/15/2016	22	11:01	0.0	14,250	19.3	10.3	2,210 ppmv	--	--	--	--	--
M20	10/16/2016	7	10:08	0.0	500	0.0	10.7	> 5.0	14:22	ND<1.2	ND<1.0	83,100	156,000
	10/16/2016	12	10:13	0.0	7500	3.0	7.2	4.80	14:27	ND<1.2	ND<1.0	84,100	151,000
	10/16/2016	12 (DUP)	--	--	--	--	--	--	14:35	ND<1.2	ND<1.0	85,700	146,000
	10/16/2016	22	10:17	0.03	750	0.0	8.9	--	--	--	--	--	--
M20	3/19/2017	7	11:18	0.0	--	--	--	--	--	--	--	--	--
	3/19/2017	12	11:25	0.0	--	--	--	--	--	--	--	--	--
	3/19/2017	22	11:30	0.2	--	--	--	--	--	--	--	--	--
NOTES: EPA = Environmental Protection Agency ASTM = American Standard Test Method ppm = part per million ppmv = part per million by volume IWC = inch of water column feet = feet below ground surface DUP = duplicate sample ND = parameter not detected at limit indicated -- = not measured, not analyzed, or not available Methane analyzed using EPA Method TO3M Hydrogen sulfide analyzed using EPA Method 6 Oxygen and carbon dioxide analyzed using ASTM Method D1946													

Table 3B

LABORATORY ANALYSIS OF VAPOR SAMPLES - VOLATILE ORGANIC COMPOUNDS
LAUSD Roosevelt High School
456 South Mathews Street
Los Angeles, California

Methane Probe	Date	Depth (feet)	Sample Collection Time	Volatile Organic Compounds using EPA Method TO-15M															
				Benzene (µg/m3)	Toluene (µg/m3)	Ethylbenzene (µg/m3)	Total Xylenes (µg/m3)	MTBE (µg/m3)	PCE (µg/m3)	TCE (µg/m3)	2-Butanone (µg/m3)	Carbon Disulfide (µg/m3)	Chloroform (µg/m3)	Chloromethane (µg/m3)	Dichloro-difluoro-methane (µg/m3)	4-Ethyl-toluene (µg/m3)	4-Methyl-2-Pentanone (µg/m3)	1,3,5-TMB (µg/m3)	1,2,4-TMB (µg/m3)
M1	10/16/2016	22	15:30	8.0	41	9.0	40.9	ND<7.2	12	ND<2.7	ND<4.4	33	ND<2.4	6.0	ND<2.5	2.5	ND<6.1	2.5	ND<7.4
M5	10/16/2016	7	15:03	15	190	39	184	ND<7.2	9.4	ND<2.7	ND<4.4	ND<31	ND<2.4	ND<1.0	ND<2.5	11	ND<6.1	12	30
	10/16/2016	12	15:09	11	200	58	304	ND<7.2	ND<3.4	ND<2.7	24	42	ND<2.4	ND<1.0	2.7	24	26	29	70
	10/16/2016	22	15:13	2.8	57	16	93	ND<7.2	4.1	ND<2.7	11	ND<31	ND<2.4	ND<1.0	4.3	9.5	ND<6.1	8.6	27
M9	10/16/2016	12	15:49	37	360	86	397	ND<7.2	ND<3.4	ND<2.7	31	130	6.4	ND<1.0	ND<2.5	22	31	25	58
	10/16/2016	22	15:58	12	160	40	192	ND<7.2	ND<3.4	ND<2.7	15	53	10	ND<1.0	ND<2.5	13	ND<6.1	10	26
M15	10/16/2016	12	14:46	33	210	50	206	ND<7.2	ND<3.4	ND<2.7	9.0	260	ND<2.4	ND<1.0	ND<2.5	13	ND<6.1	15	35
	10/16/2016	22	14:52	89	510	79	294	ND<7.2	ND<3.4	ND<2.7	14	ND<31	ND<2.4	ND<1.0	ND<2.5	23	28	23	58
M20	10/16/2016	7	14:22	3.4	51	11	57	ND<7.2	ND<3.4	ND<2.7	ND<4.4	ND<31	ND<2.4	ND<1.0	ND<2.5	4.1	ND<6.1	4.4	10
	10/16/2016	12	14:27	17	190	35	173	ND<7.2	ND<3.4	ND<2.7	ND<4.4	32	ND<2.4	ND<1.0	ND<2.5	11	ND<6.1	11	24
	10/16/2016	12(DUP)	14:35	19	220	38	194	ND<7.2	ND<3.4	ND<2.7	ND<4.4	42	ND<2.4	ND<1.0	ND<2.5	11	ND<6.1	11	24
NOTES: EPA = Environmental Protection Agency ND = parameter not detected at limit indicated 1,3,5-TBM = 1,3,5 trimethylbenzene feet = feet below ground surface MTBE = methyl tertiary butyl ether 1,2,4-TBM = 1,2,4 trimethylbenzene DUP = duplicate sample PCE = tetrachloroethylene µg/m3 = micrograms per cubic meter TCE = trichloroethene																			

Table 4A

REVISED SUMMARY OF PROPOSED EXCAVATION VOLUMES
SCREENING LEVELS: 80 mg/kg LEAD AND 12 mg/kg ARSENIC
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Location ID	Chemicals of Concern	Length (feet)	Width (feet)	Depth (feet)	Volume (cubic yards)	Volume (tons)	Notes
AREA 2							
C-12	Lead (Pb)	20	20	2.5	37.04	55.56	
B-6	Lead (Pb)	40	30	4.5	200.00	300.00	Confirmation sample at 4.5 feet bgs. See Table 3A, includes CAL-HAZ lead-affected soil.
PE-3	Lead (Pb)	40	15	4.5	100.00	150.00	Confirmation sample at 4.5 feet bgs. See Table 3A, includes CAL-HAZ lead-affected soil.
H-2	Lead (Pb)	20	45	3.5	116.67	175.00	H-2 total volume: 204.17 cubic yards or 306.25 tons.
H-2	Lead (Pb)	27	25	3.5	87.50	131.25	
Area 2 Subtotal					541.20	811.81	
AREA 3							
C-17 / C-17b	Lead (Pb)	50	25	2.5	115.74	173.61	See Table 3A, includes CAL-HAZ lead-affected soil.
B-16 / B-16a	Arsenic (As) & Lead (Pb)	25	25	3.5	81.02	121.53	
B-15b	Lead (Pb)	25	25	2.5	57.87	86.81	
B-13b / B-14 / B-14a/b / B-15 / B-15a	Arsenic (As)	100	25	2.5	231.48	347.22	
B-13 / B-13a	Arsenic (As) & Lead (Pb)	20	25	4.5	83.33	125.00	Confirmation sample at 4.5 feet bgs. See Table 3A, includes CAL-HAZ lead-affected soil.
B-13c / C-13 / C-13c	Lead (Pb)	20	75	2.5	138.89	208.33	See Table 3A, includes CAL-HAZ lead-affected soil.
Area 3 Subtotal					708.33	1062.50	
AREA 5							
MB-6	Lead (Pb)	15	20	2.5	27.78	41.67	
AUD-3a / AUD-3a1	Lead (Pb)	55	55	2.5	280.09	420.14	See Table 3A, includes CAL-HAZ lead-affected soil.
AUD-3 /AUD-3b	Lead (Pb)	35	45	2.5	145.83	218.75	See Table 3A, includes CAL-HAZ lead-affected soil.
AUD-3c / AUD-3c1	Lead (Pb)	57	37	2.5	195.28	292.92	See Table 3A, includes CAL-HAZ lead-affected soil.
AUD-4/AUD-4c	Lead (Pb)	20	100	2.5	185.19	277.78	See Table 3A, includes CAL-HAZ lead-affected soil.
AUD-5 / AUD-5b	Lead (Pb)	35	53	2.5	171.76	257.64	See Table 3A, includes CAL-HAZ lead-affected soil.
AUD-5c / AA2038-9	Lead (Pb)	20	60	2.5	111.11	166.67	See Table 3A, includes CAL-HAZ lead-affected soil.
AUD-6 / AUD-6b	Lead (Pb)	35	62	2.5	200.93	301.39	See Table 3A, includes CAL-HAZ lead-affected soil.
AUD-6c	Lead (Pb)	60	58	2.5	322.22	483.33	See Table 3A, includes CAL-HAZ lead-affected soil.
Area 5 Subtotal					1640.19	2460.28	
AREA 6							
FS-2	Arsenic (As)	15	15	2.5	20.83	31.25	FS-2 total: 28.24 cubic yards or 42.36 tons
FS-2	Arsenic (As)	10	8	2.5	7.41	11.11	
AA1917	Lead (Pb)	20	15	4.5	50.00	75.00	Confirmation sample at 4.5 feet bgs
IM1	Arsenic (As)	30	17	3.5	66.11	99.17	
IM-2 / IM-2b	Lead (Pb)	45	17	3.5	99.17	148.75	See Table 3A, includes CAL-HAZ lead-affected soil.
IM-3 / IM-3c	Arsenic (As)	15	40	4.5	100.00	150.00	
IM-4	Arsenic (As)	20	10	3.5	25.93	38.89	
IM-5 / IM-5d	Arsenic (As)	35	10	4.5	58.33	87.50	
IM-6	Arsenic (As)	15	30	2.5	41.67	62.50	
CRA-2	Lead (Pb)	45	22	4.5	165.00	247.50	See Table 3A, includes CAL-HAZ lead-affected soil.
CRA-3	Arsenic (As)	25	22	2.5	50.93	76.39	
CR1-2	Lead (Pb)	50	15	2.5	69.44	104.17	See Table 3A, includes CAL-HAZ lead-affected soil.
CR1-4 / CR1-4b	Lead (Pb)	82	7	2.5	53.15	79.72	CR1-4 / CR1-4b total: 87.87 cubic yards or 131.80 tons. See Table 3A, includes CAL-HAZ lead-affected soil.
CR1-4 / CR1-4b	Lead (Pb)	15	25	2.5	34.72	52.08	
CR1-5 / CR1-5b	Arsenic (As) & Lead (Pb)	85	12	3.5	132.22	198.33	See Table 3A, includes CAL-HAZ lead-affected soil.
CR1-5d	Lead (Pb)	35	17	0.5	11.02	16.53	See Table 3A, includes CAL-HAZ lead-affected soil.
R-15	Lead (Pb)	40	22	2.5	81.48	122.22	See Table 3A, includes CAL-HAZ lead-affected soil.
Q-15b / Q-15d	Lead (Pb)	50	32	3.5	207.41	311.11	See Table 3A, includes CAL-HAZ lead-affected soil.
P-15 / P-15a/d / P-15d1 / Q-15a	Lead (Pb)	48	50	5.5	488.89	733.33	Confirmation sample at 5.5 feet bgs. See Table 3A, includes CAL-HAZ lead-affected soil.
P-15b / P-16 / P-16a/b/c	Lead (Pb)	48	38	2.5	168.89	253.33	Total: 196.67 cubic yards or 295 tons. See Table 3A, includes CAL-HAZ lead-affected soil.
P-15b / P-16 / P-16a/b/c	Lead (Pb)	25	12	2.5	27.78	41.67	

Table 4B

SUMMARY OF CALIFORNIA HAZARDOUS LEAD EXCAVATION VOLUMES
SCREENING LEVEL 80 mg/kg LEAD
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Location ID	Chemicals of Concern	Length (feet)	Width (feet)	Depth (feet)	Volume (cubic yards)	Volume (tons)	Notes
AREA 2							
B-6b	CAL-HAZ Lead (Pb)	29	15	3.5	56.39	84.58	
PE-3 / PE-3b	CAL-HAZ Lead (Pb)	27	15	4.5	67.50	101.25	Confirmation sample at 4.5 feet bgs
Area 2 Subtotal					123.89	185.83	
AREA 3							
C-17b	CAL-HAZ Lead (Pb)	25	25	2.5	57.87	86.81	
B-13 / B-13a	CAL-HAZ Lead (Pb)	20	25	3.5	64.81	97.22	
C-13	CAL-HAZ Lead (Pb)	20	25	2.5	46.30	69.44	
Area 3 Subtotal					168.98	253.47	
AREA 5							
AUD-3a / AUD-3a1	CAL-HAZ Lead (Pb)	55	55	2.5	280.09	420.14	
AUD-3 / AUD-3b	CAL-HAZ Lead (Pb)	35	45	2.5	145.83	218.75	
AUD-3c	CAL-HAZ Lead (Pb)	35	37	2.5	119.91	179.86	
AUD-4	CAL-HAZ Lead (Pb)	20	50	2.5	92.59	138.89	
AUD-5 AUD-5b	CAL-HAZ Lead (Pb)	35	53	2.5	171.76	257.64	
AUD-5c / AA2038-9	CAL-HAZ Lead (Pb)	20	60	2.5	111.11	166.67	
AUD-6 AUD-6b	CAL-HAZ Lead (Pb)	35	62	2.5	200.93	301.39	
AUD-6c	CAL-HAZ Lead (Pb)	60	58	2.5	322.22	483.33	
Area 5 Subtotal					1444.44	2166.67	
AREA 6							
IM-2 / IM-2b	CAL-HAZ Lead (Pb)	45	17	3.5	99.17	148.75	
CRA-2 / CRA-2b CRA-2c	CAL-HAZ Lead (Pb)	45	22	4.5	165.00	247.50	
CR1-2 / CR1-2d CR1-2d1	CAL-HAZ Lead (Pb)	50	15	2.5	69.44	104.17	
CR1-4 / CR1-4b	CAL-HAZ Lead (Pb)	82	7	2.5	53.15	79.72	CR1-4 / CR1-4b total: 87.87 cubic yards or 131.80 tons
CR1-4 / CR1-4b	CAL-HAZ Lead (Pb)	15	25	2.5	34.72	52.08	
CR1-5	CAL-HAZ Lead (Pb)	40	12	2.5	44.44	66.67	
CR1-5b	CAL-HAZ Lead (Pb)	45	12	3.5	70.00	105.00	
CR1-5d	CAL-HAZ Lead (Pb)	35	17	0.5	11.02	16.53	
R-15d	CAL-HAZ Lead (Pb)	30	20	2.5	55.56	83.33	
Q-15	CAL-HAZ Lead (Pb)	20	25	2.5	46.30	69.44	
P-16	CAL-HAZ Lead (Pb)	20	20	2.5	37.04	55.56	
P-15b	CAL-HAZ Lead (Pb)	25	50	2.5	115.74	173.61	
P-15 / P-15d P-15d1 /Q-15a	CAL-HAZ Lead (Pb)	50	45	4.5	375.00	562.50	
Area 6 Subtotal					1176.57	1764.86	
AREA 9							
W-14	CAL-HAZ Lead (Pb)	25	25	3.5	81.02	121.53	
W-14a	CAL-HAZ Lead (Pb)	25	25	2.5	57.87	86.81	
Area 9 Subtotal					138.89	208.33	
Total Proposed Excavation Volume					3052.78	4579.17	
Notes: 1 cubic yard = 1.5 tons bgs = below ground surface CAL-HAZ = California Hazardous Waste							

Table 4A

REVISED SUMMARY OF PROPOSED EXCAVATION VOLUMES
SCREENING LEVELS: 80 mg/kg LEAD AND 12 mg/kg ARSENIC
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Location ID	Chemicals of Concern	Length (feet)	Width (feet)	Depth (feet)	Volume (cubic yards)	Volume (tons)	Notes
AA2684-2 / AA2684-3 AA2684-6 / AA2543-1 AA2543-2	Arsenic (As)	60	30	4.5	300.00	450.00	Total: 337.50 cubic yards or 506.25 tons. Confirmation sample at 4.5 feet bgs
AA2684-2 / AA2684-3 AA2684-6 / AA2543-1 AA2543-2	Arsenic (As)	15	15	4.5	37.50	56.25	
AA2543-6	Arsenic (As)	10	28	3.5	36.30	54.44	Confirmation sample at 3.5 feet bgs
AA2543-5	Arsenic (As)	45	15	4.5	112.50	168.75	Confirmation sample at 4.5 feet bgs
AA2038-1 / AA2249-1	Arsenic (As)	70	18	4.5	210.00	315.00	Confirmation sample at 4.5 feet bgs
AA2038-3 / AA2038-4	Arsenic (As)	15	60	4.5	150.00	225.00	Confirmation sample at 4.5 feet bgs
AA2038-2	Arsenic (As)	30	15	4.5	75.00	112.50	Confirmation sample at 4.5 feet bgs
AA2249-2	Arsenic (As)	10	38	4.5	63.33	95.00	Confirmation sample at 4.5 feet bgs
Area 6 Subtotal					2945.00	4417.50	
AREA 9							
V-16	Lead (Pb)	25	25	2.5	57.87	86.81	
X-12	Arsenic (As)	12	50	2.5	55.56	83.33	
W-14 / W-14a	Lead (Pb)	25	60	3.5	194.44	291.67	See Table 3A, includes CAL-HAZ lead-affected soil.
X-14	Arsenic (As) & Lead (Pb)	62	62	3.5	498.30	747.44	
Y-17 / Y-17c	Arsenic (As)	25	48	2.5	111.11	166.67	
X-17 / X-17b / X-18 X-18 a/c	Arsenic (As)	30	25	2.5	69.44	104.17	X-17/X-18 total volume: 219.90 cubic yards or 329.86 tons.
X-17 / X-17b / X-18 X-18 a/c	Arsenic (As)	25	65	2.5	150.46	225.69	
Area 9 Subtotal					1137.19	1705.78	
HYDRAULIC HOISTS AND CLARIFIER							
HL2-2	Hydrocarbons	18	10	7	46.67	70.00	Confirmation sample at 7 feet bgs
Hydraulic Hoists and Clarifier Subtotal					46.67	70.00	
Total Proposed Excavation Volume					7018.58	10527.87	
Notes: 1 cubic yard = 1.5 tons bgs = below ground surface CAL-HAZ = California Hazardous Waste							

APPENDIX A
PROPOSED PEA INVESTIGATION

Table 1
General Site Screening
Lead-based Paint and Termiticide Sampling
Roosevelt High School

Sample Location	Depth (feet bgs)	Discrete Samples	Composite Samples	Analyses				Rationale
				Arsenic EPA 6010	Lead EPA 6010	OCPs EPA 8081	PCBs EPA 8082	
AREA 1 - Swimming Pool - No Sampling								
Area 2 - Physical Education Building and Courts (Figure 2)								
PE-1 TO PE-5	0.5	5	2	5	5	--	--	LBP at Physical Education Bldg. (No OCPs, Masonry Building)
	2.5	5	A	A	A	A	--	
B6-B12	0.5	7	2	7	7	2	1	General Site Screening
	2.5	7	A	A	A	A	A	
C6-C12	0.5	7	2	7	7	2	--	General Site Screening LBP/OCP at Bleachers at line 12
	2.5	7	A	A	A	A	--	
D6-D12	0.5	7	2	7	7	2	--	General Site Screening LBP/OCP at Bleachers at line 12
	2.5	7	A	A	A	A	--	
E6-E12	0.5	7	2	7	7	2	--	General Site Screening LBP/OCP at Bleachers at line 12
	2.5	7	A	A	A	A	--	
F6-F12	0.5	7	2	7	7	2	--	General Site Screening LBP/OCP at Bleachers at line 12
	2.5	7	A	A	A	A	--	
G11-G12	0.5	2	1	2	2	1	--	General Site Screening, PE Bldg LBP/OCP at Bleachers at line 12
	2.5	2	A	A	A	A	--	
H11-H12	0.5	2	1	2	2	1	--	General Site Screening, PE Bldg LBP/OCP at Bleachers at line 12
	2.5	2	A	A	A	A	--	
I11-I12	0.5	2	1	2	2	1	1	General Site Screening LBP/OCP at Bleachers at line 12
	2.5	2	A	A	A	A	A	
Area 3 - Athletic Field and Bleachers (Figure 3)								
B13-B17	0.5	5	2	5	5	2	--	General Site Screening
	2.5	5	A	A	A	A	--	
C13-C18	0.5	5	2	5	5	2	--	General Site Screening LBP/OCP at Bleachers at line 13
	2.5	5	A	A	A	A	--	
D13-D17	0.5	5	2	5	5	2	--	General Site Screening LBP/OCP at Bleachers at line 13
	2.5	5	A	A	A	A	--	
E13-E17	0.5	5	2	5	5	2	--	General Site Screening LBP/OCP at Bleachers at line 13
	2.5	5	A	A	A	A	--	
F13-F17	0.5	5	2	5	5	2	--	General Site Screening LBP/OCP at Bleachers at line 13
	2.5	5	A	A	A	A	--	
G13-G17	0.5	5	2	5	5	2	--	General Site Screening LBP/OCP at Bleachers at line 13
	2.5	5	A	A	A	A	--	
H13-H17	0.5	5	2	5	5	2	--	General Site Screening LBP/OCP at Bleachers at line 13
	2.5	5	A	A	A	A	--	
I13-I17	0.5	5	2	5	5	2	1	General Site Screening LBP/OCP at Bleachers at line 13
	2.5	5	A	A	A	A	A	
J14-J17	0.5	4	1	4	4	1	--	General Site Screening
	2.5	4	A	A	A	A	--	
K14-K17	0.5	4	1	4	4	1	--	General Site Screening
	2.5	4	A	A	A	A	--	
Area 4 (No Sampling)								
Area 5 - Auditorium and Lunch Pavilion (Figure 4)								
MB-1 to MB-6	0.5	6	2	6	6	2	--	LBP/OCP at Music Building
	2.5	6	A	A	A	A	--	
AUD-1 to AUD-12	0.5	12	3	12	12	3	1	LBP/OCP at Auditorium Building
	2.5	12	A	A	A	A	A	
UB-1 to UB-6	0.5	6	2	6	6	2	1	LBP/OCP at Utility Building
	2.5	6	A	A	A	A	A	
HVAC-1 to HVAC-3	0.5	3	1	3	3	--	1	LBP at HVAC Enclosure
	2.5	3	A	A	A	A	A	
AA653-1 to AA653-4	0.5	4	1	4	4	1	--	LBP/OCP at Temporary Building AA653
	2.5	4	A	A	A	A	--	
AA652-1 to AA652-4	0.5	4	1	4	4	1	--	LBP/OCP at Temporary Building AA 652
	2.5	4	A	A	A	A	--	
P6-P7, Q6-Q7	0.5	4	1	4	4	1	--	General Site Screening
	2.5	4	A	A	A	A	--	
Q4, R4 ,S4, T4	0.5	4	1	4	4	1	--	General Site Screening
	2.5	4	A	A	A	A	--	
R7 ,S7, T7	0.5	3	1	3	3	1	--	General Site Screening at Lunch Pavilion
	2.5	3	A	A	A	A	--	

Table 1
General Site Screening
Lead-based Paint and Termiticide Sampling
Roosevelt High School

Sample Location	Depth (feet bgs)	Discrete Samples	Composite Samples	Analyses				Rationale
				Arsenic EPA 6010	Lead EPA 6010	OCps EPA 8081	PCBs EPA 8082	
Area 6 (Figure 5)								
AA955-1 to AA 955-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	1 A	LBP/OCp at Temporary Building AA955
AA2573-1 to AA2572-5	0.5 2.5	5 5	2 A	5 A	5 A	2 A	--	LBP/OCp at Temporary Building AA 2373
AA1917-1 to AA1917-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	--	LBP/OCp at Temporary Building AA1917
AA2685-1 to AA2685-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	--	LBP/OCp at Temporary Building AA2685
AA2684-1 to AA2684-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	--	LBP/OCp at Temporary Building AA2684
AA2543-1 to AA2543-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	--	LBP/OCp at Temporary Building AA2543
AA2038-1 to AA2038-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	--	LBP/OCp at Temporary Building AA2038
AA2249-1 to AA2249-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	--	LBP/OCp at Temporary Building AA2249
FS-1 to FS-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	--	LBP/OCp at Field Equipment Storage
IA-1 to IA-6	0.5 2.5	6 6	2 A	6 A	6 A	-- A	-- --	LBP at Industrial Arts Building (No OCps, Masonry Building)
AS-1 to AS-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	1 A	LBP/OCp Auto Service Shop
IM-1 - IM-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	-- --	LBP/OCp Instrumental Music
CRA-1 to CRA-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	-- --	LBP/OCp Classroom Building A
CRB-1 to CRB-4	0.5 2.5	4 4	1 A	4 A	4 A	1 A	-- --	LBP/OCp Classroom Building B
CR1-1 to CR1-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	1 A	LBP/OCp Classroom Building 1
P14 - P16	0.5 2.5	3 3	1 A	3 A	3 A	1 A	-- --	General Site Screening
Q14 - Q16	0.5 2.5	3 3	1 A	3 A	3 A	1 A	-- --	General Site Screening
R14 - R16	0.5 2.5	3 3	1 A	3 A	3 A	1 A	-- --	General Site Screening
Area 7 - Southwest corner of Campus (No Sampling)								
Area 8 - South Central Portion of Campus (Figure 6)								
AA923-1 to AA923-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	-- --	LBP/OCp Temporary Building AA923
AA1322-1 to AA1322-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	-- --	LBP/OCp Temporary Building AA1322
AA828-1 to AA828-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	-- --	LBP/OCp Temporary Building AA828
AA651/683-1 to AA651/683-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	-- --	LBP/OCp Temporary Building AA651/683
AA831-1 to AA831-6	0.5 2.5	6 6	2 A	6 A	6 A	2 A	1 A	LBP/OCp Temporary Building 831
X8 to X11	0.5 2.5	4 4	1 A	4 A	4 A	1 A	-- --	General Site Screening
Y8 to Y11	0.5 2.5	4 4	1 A	4 A	4 A	1 A	-- --	General Site Screening

Table 1
General Site Screening
Lead-based Paint and Termiticide Sampling
Roosevelt High School

Sample Location	Depth (feet bgs)	Discrete Samples	Composite Samples	Analyses				Rationale
				Arsenic EPA 6010	Lead EPA 6010	OCPs EPA 8081	PCBs EPA 8082	
Area 9 - Southeast Portion of Campus (Figure 7)								
V13-V17	0.5	5	2	5	5	2	--	General Site Screening
	2.5	5	A	A	A	A	--	
W12-W17	0.5	6	2	6	6	2	--	General Site Screening
	2.5	6	A	A	A	A	--	
X12-X17	0.5	6	2	6	6	2	--	General Site Screening
	2.5	6	A	A	A	A	--	
Y12 to Y17	0.5	6	2	6	6	2	1	General Site Screening
	2.5	6	A	A	A	A	A	
Total Samples		562	90	281	281	85	11	

A = Sample to be archived

LBP = Lead based paint

OCP = organochlorine pesticides

PCBs = Polychlorinated biphenyls

ft bgs = Feet Below Ground Surface

Samples to be collected in general accordance with June 2006 INTERIM GUIDANCE EVALUATION OF SCHOOL SITES WITH POTENTIAL SOIL CONTAMINATION AS A RESULT OF LEAD FROM LEAD-BASED PAINT, ORGANOCHLORINE PESTICIDES.

Table 2
Sampling Plan
Undocumented Fill Evaluation
Roosevelt High School

Sample Location	Depth (ft bgs)	TPHg EPA 8015g	TPHcc EPA 8015d,o	VOCs EPA 8260	SVOCs EPA 8270	PCBs EPA 8082	OCPs EPA 8081	CAM Metals EPA 6010/7470	Rationale
Fill-1 (GPI-1)	2	--	x	-	x	x	x	x	Evaluation of undocumented fill at GPI location B-1
(See Figure 2)	5	1	x	1	x	x	x	x	
	10	--	x	--	x	x	x	x	
	Comp-1	1	1	--	1	1	1	1	
Fill-2	2	--	x	--	x	x	x	x	Evaluation of undocumented fill at the southern portion of the site.
(See Figure 6)	5	--	x	--	x	x	x	x	
	10	1	x	1	x	x	x	x	
	14	--	x	--	x	x	x	x	
	Comp-2	1	1	--	1	1	1	1	
Total		2	2	2	2	2	2	2	

locations based on GPI Geotechnical Investigation Report dated June 14, 2015

one discrete sample to be collected from indicated location in accordance with EPA method 5035 for VOC and TPHg analysis

GPI = Geotechnical Professionals Inc.

TPHg = Total Petroleum Hydrocarbons in the gasoline range

TPHd,o = Total Petroleum Hydrocarbons in the diesel and oil ranges

VOCs = Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

PCBs = Polychlorinated biphenyls

OCP = organochlorine pesticides

ft bgs = Feet Below Ground Surface

x = discrete sample to be composited for analysis

Table 3
Sampling Plan
Hydraulic Hoist and Clarifier
Roosevelt High School

Sample Location	Depth (ft bgs)	TPHcc EPA 8015	VOCs EPA 8260c	SVOCs EPA 8270	PCBs EPA 8082	Metals EPA 6010/7470	Rationale
HL1-1	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-1 in Industrial Arts T-104
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
HL1-2	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-1 in Industrial Arts T-104
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
HL2-1	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-2 in Industrial Arts T-104
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
HL2-2	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-2 in Industrial Arts T-104
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
HL3-1	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-3 in Industrial Arts T-104
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
HL3-2	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-3 in Industrial Arts T-104
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
HL4-1	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-4 in Industrial Arts T-102
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
HL4-2	0.5	1	--	--	1	1	Evaluate soil at hydraulic hoist HL-4 in Industrial Arts T-102
	2	1	--	--	1	1	
	5	1	--	--	1	1	
	10	1	--	--	1	1	
CL1-1	0.5	1	1	1	--	1	Evaluate west end of clarifier at Industrial Arts Building
	2	1	1	1	--	1	
	5	1	1	1	--	1	
	10	1	1	1	--	1	
CL1-2	0.5	1	1	1	--	1	Evaluate east end of clarifier at Industrial Arts Building
	2	1	1	1	--	1	
	5	1	1	1	--	1	
	10	1	1	1	--	1	
Total		40	8	8	32	40	

Sub-samples to be collected in accordance with EPA method 5035 for TPH and/or VOC analysis

GPI = Geotechnical Professionals Inc.

TPHcc = Total Petroleum Hydrocarbons, carbon chain (gasoline, diesel, and oil ranges)

VOCs = Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

PCBs = Polychlorinated biphenyls

ft bgs = Feet Below Ground Surface

Table 4
Sampling Plan
Methane Sampling
Roosevelt High School

Location	Depth	GEM 5000 ¹ .	TVA 1000	Jerome 631x	EPA TO-3 CH ₄	EPA 15/16 H ₂ S
M1 (C7)	7	x	x	x	--	--
	12	x	x	x	1	1
	22	x	x	x	--	--
M2 (C15)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M3 (F9)	7	x	x	x	1	1
	12	x	x	x	--	--
	22	x	x	x	--	--
M4 (F16)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M5 (H3)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	1	1
M6 (H11)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M7 (J17)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M8 (K8)	7	x	x	x	1	1
	12	x	x	x	--	--
	22	x	x	x	--	--
M9 (M8)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M10 (M12)	7	x	x	x		
	12	x	x	x	1	1
	22	x	x	x		
M11 (L14)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M12 (CL1-2)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M13	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	1	1

Table 4
Sampling Plan
Methane Sampling
Roosevelt High School

Location	Depth	GEM 5000 ¹ .	TVA 1000	Jerome 631x	EPA TO-3 CH ₄	EPA 15/16 H ₂ S
M14 (P14)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M15	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M16	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M17 (S16)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M18 (14)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M19 (X10)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
M20 (Y15)	7	x	x	x	--	--
	12	x	x	x	--	--
	22	x	x	x	--	--
Background		x	x	x		
					6	6

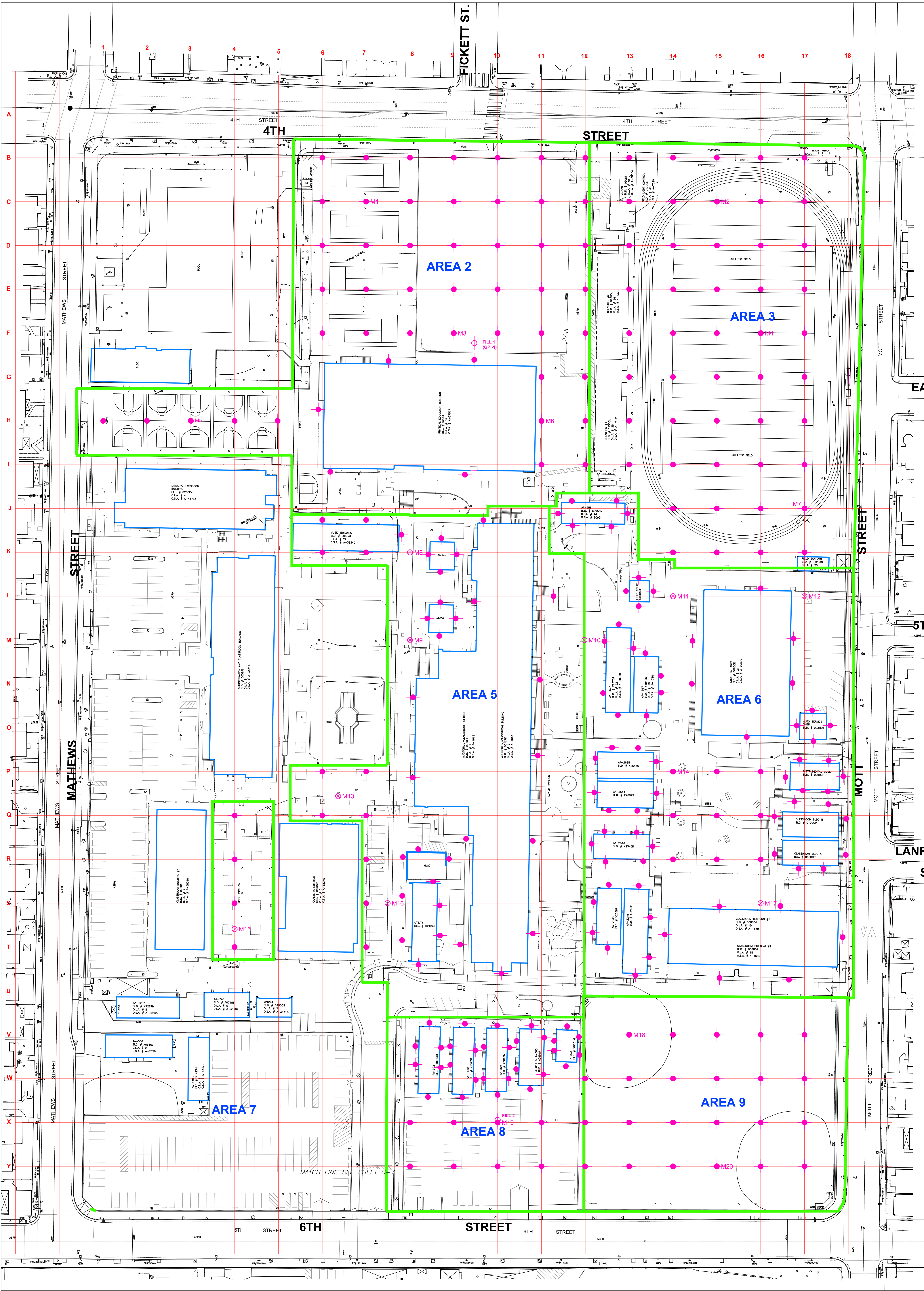
CH₄ - Methane

H₂S Hydrogen sulfide


¹. Monitor for pressure, fixed gasses (O₂, CO₂), methane and hydrogen sulfide.


Depths based upon a presumed footing depth of 2-feet.

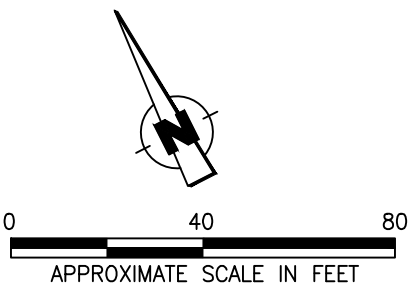
(B12) indicates a co-located soil boring.



EXPLANATION

 PROPOSED LBP AND OCP SAMPLE LOCATION

 PROPOSED UNDOCUMENTED FILL SAMPLING LOCATION

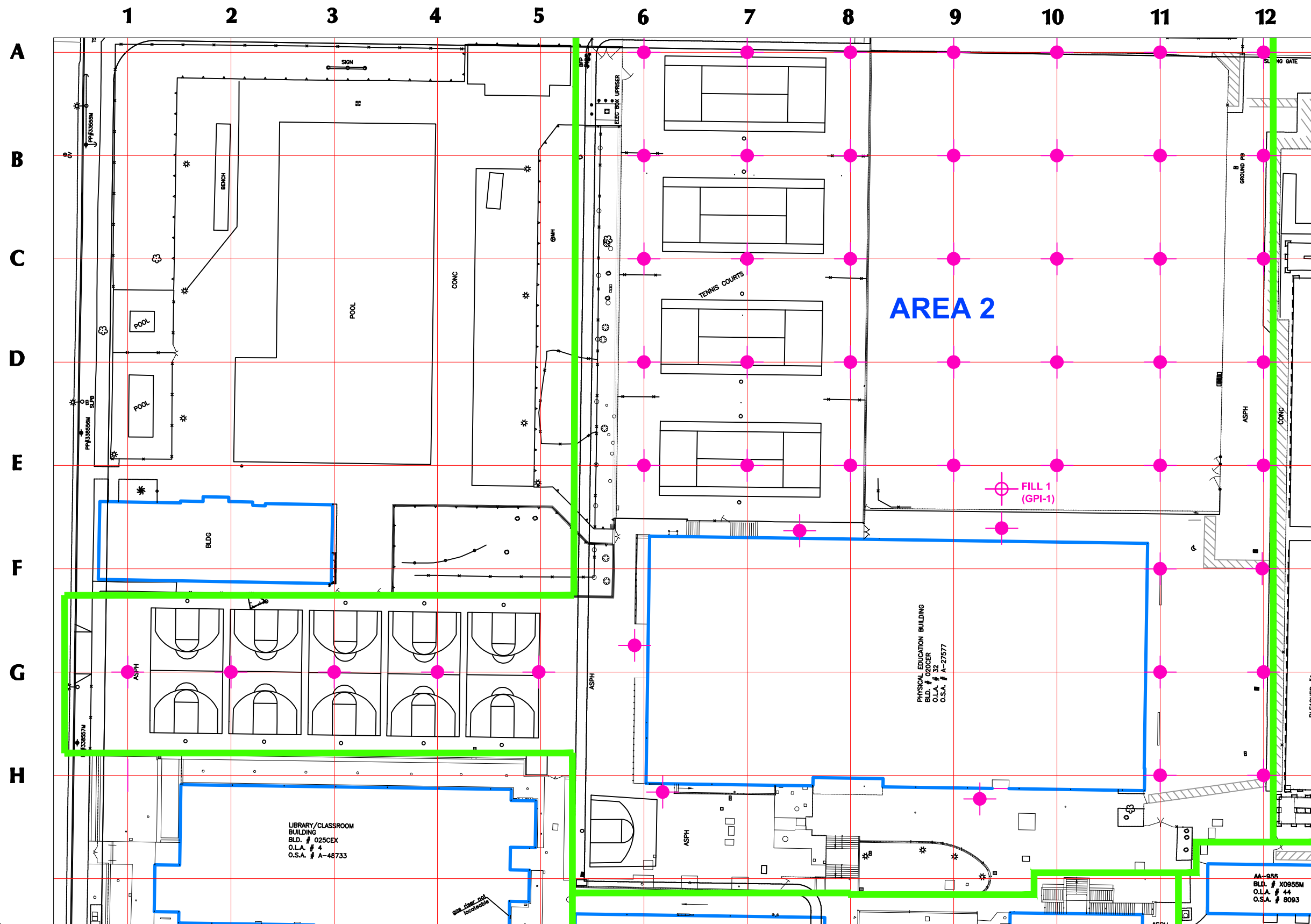


Converse Consultants

LAUSD
ROOSEVELT HIGH SCHOOL
456 S. MATHEWS STREET

PROPOSED SAMPLE LOCATION PLAN

Project No. 16-41-126-01
Drawing No. 1



EXPLANATION

PROPOSED SAMPLE LOCATION - AREA 2



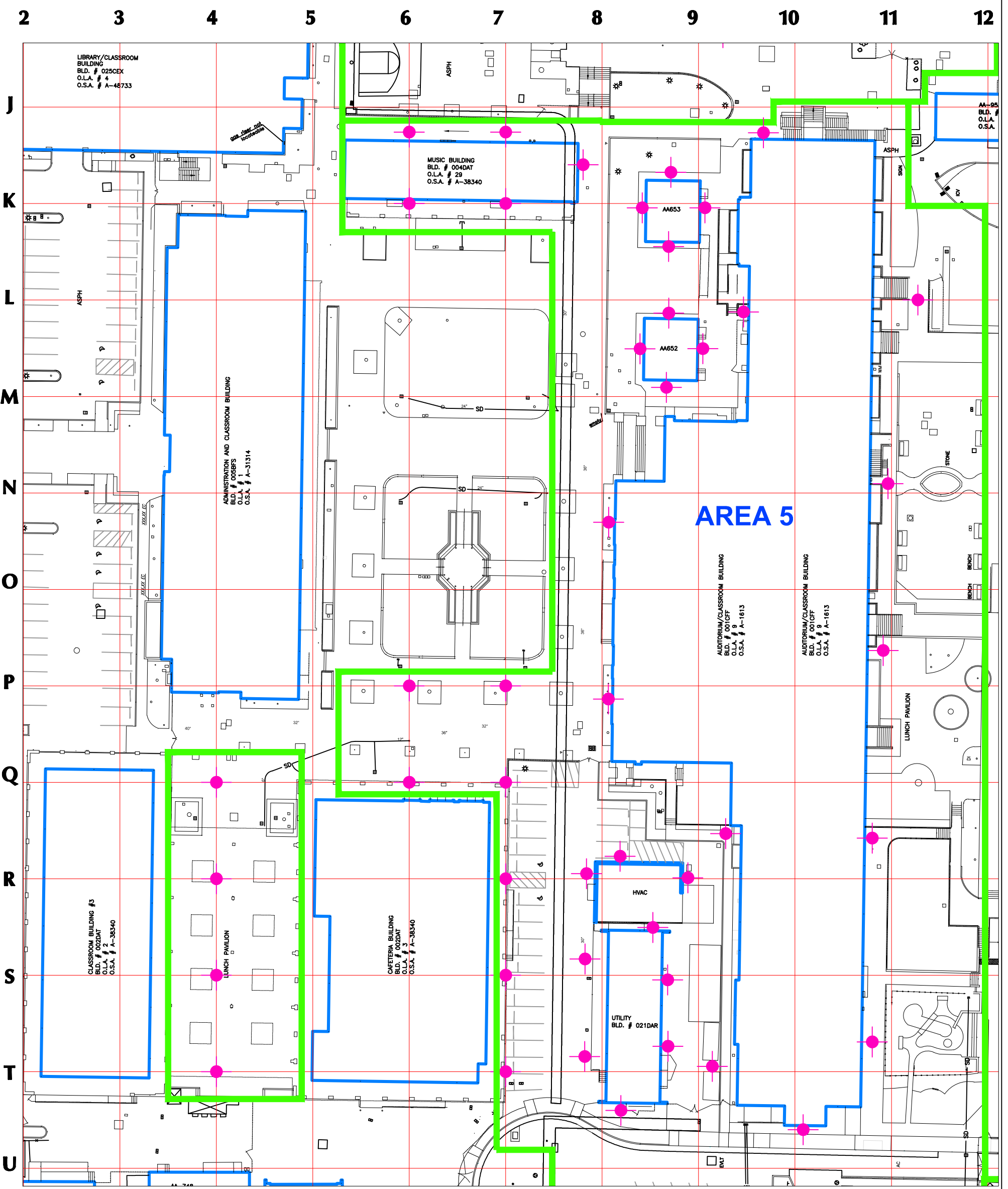
Converse Consultants

LAUSD
ROOSEVELT HIGH SCHOOL
456 S. MATHEWS STREET

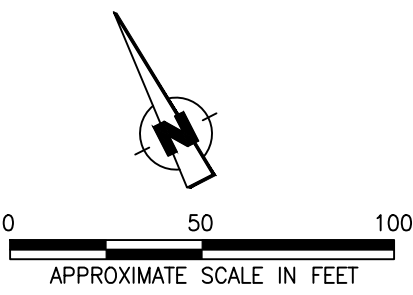
Project No.
16-41-126-01

Drawing No.

2

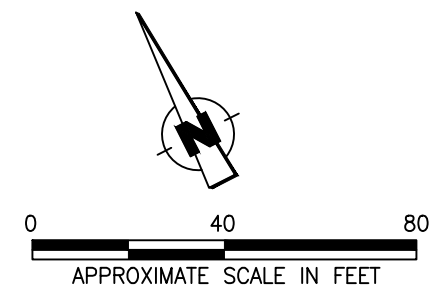
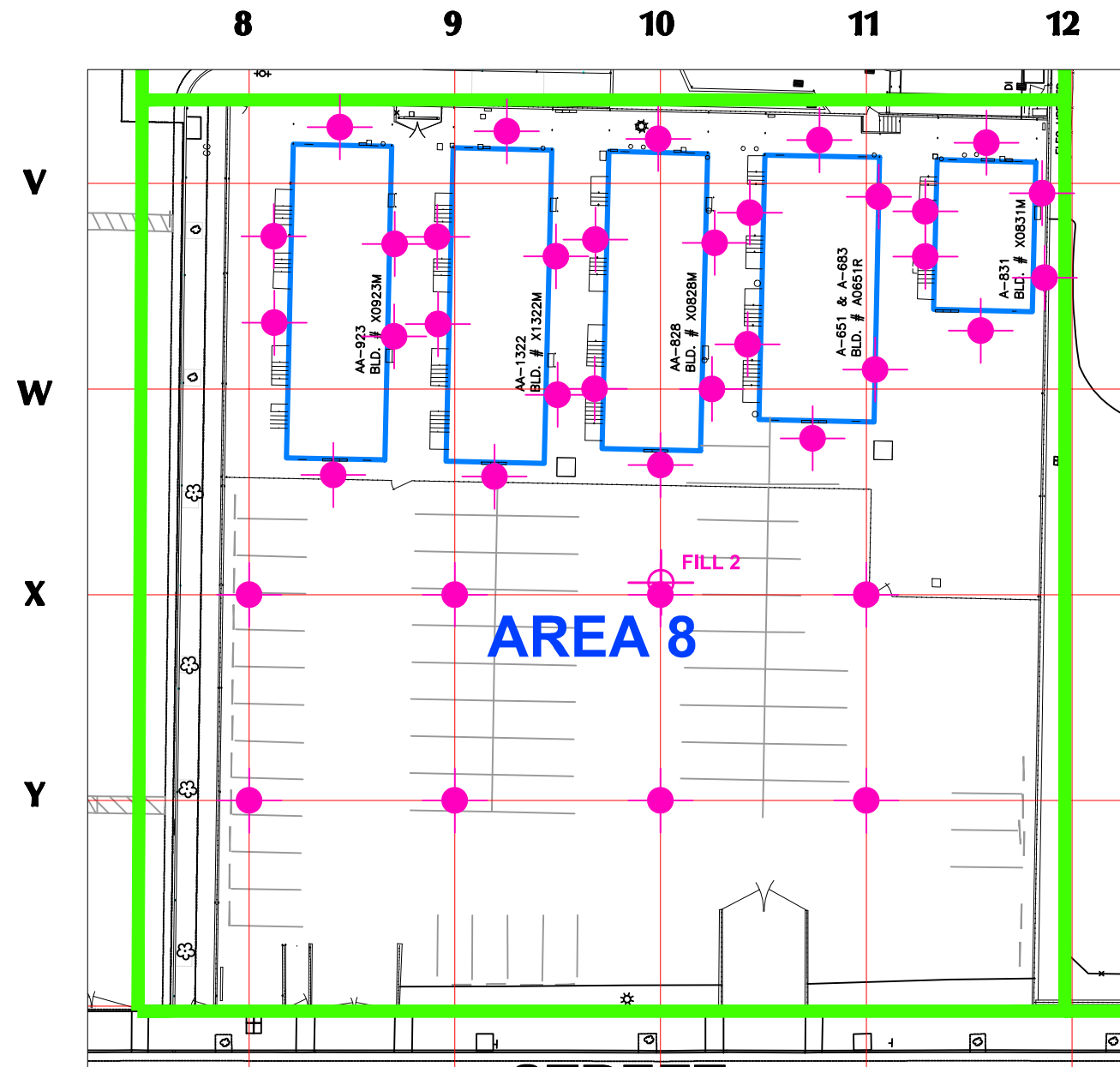


EXPLANATION





 PROPOSED SAMPLE LOCATION

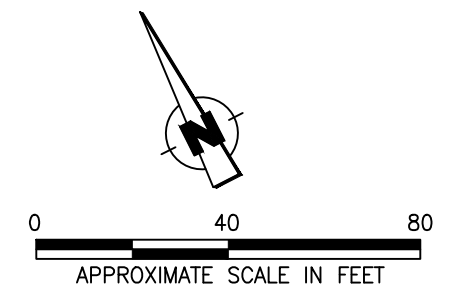
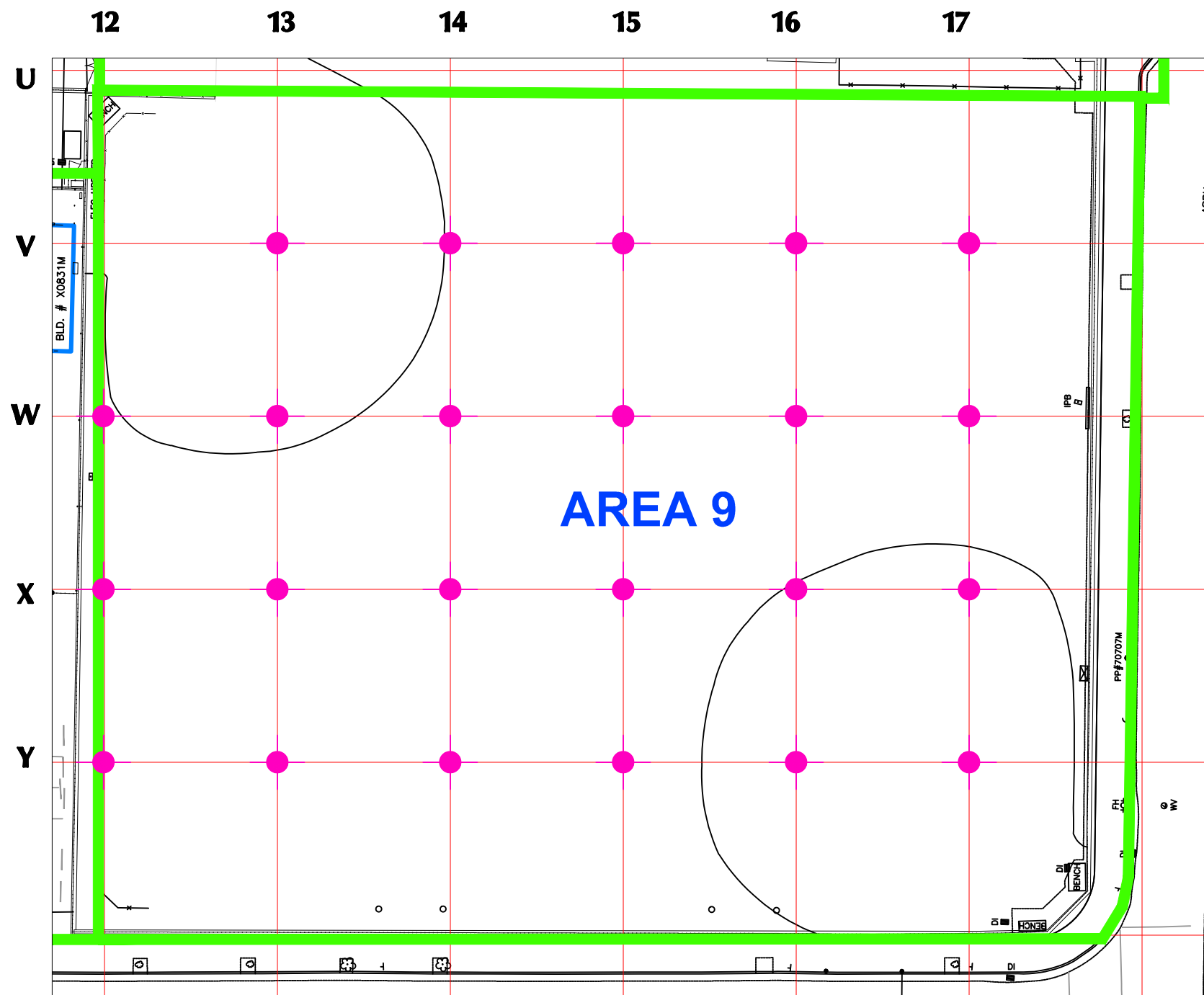
PROPOSED SAMPLE LOCATION - AREA 5




EXPLANATION

-  PROPOSED SAMPLE LOCATION
-  PROPOSED UNDOCUMENTED FILL SAMPLING LOCATION

PROPOSED SAMPLE LOCATION - AREA 8



EXPLANATION

 PROPOSED SAMPLE LOCATION

PROPOSED SAMPLE LOCATION - AREA 9



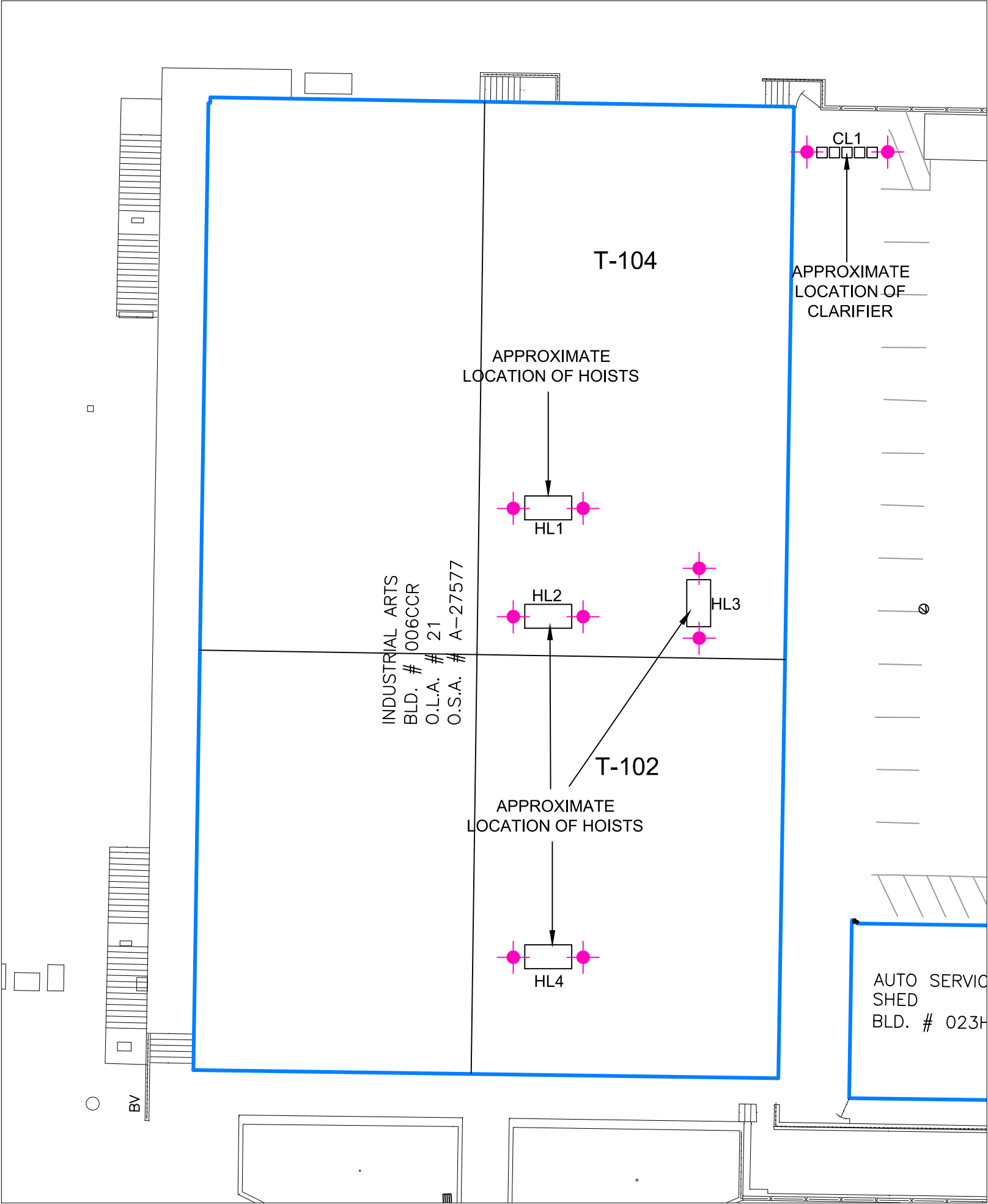
Converse Consultants

LAUSD
ROOSEVELT HIGH SCHOOL
456 S. MATHEWS STREET


Project No.
16-41-126-01

Drawing No.

7



EXPLANATION

 PROPOSED SAMPLE LOCATION

PROPOSED SAMPLE LOCATIONS

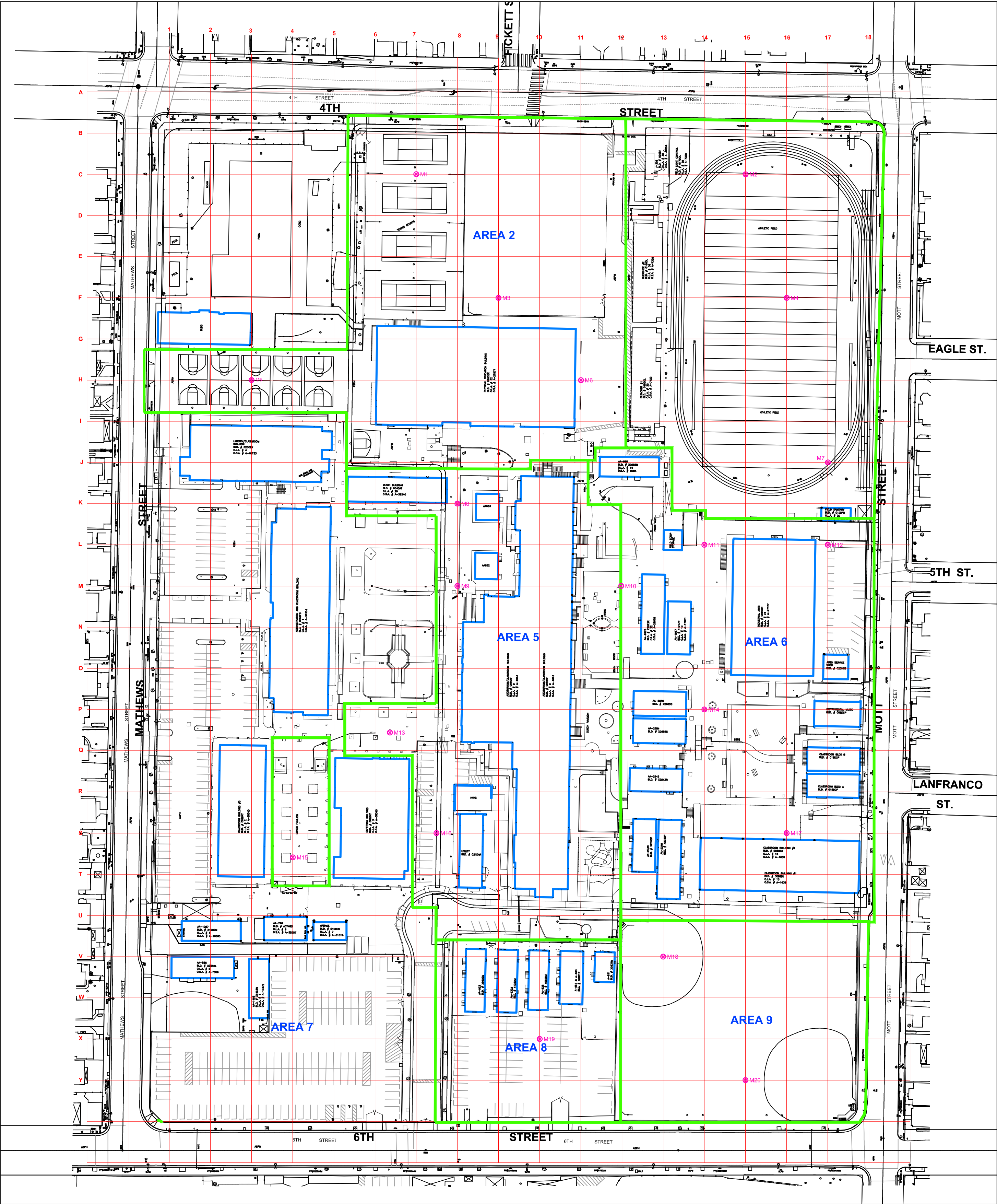


Converse Consultants

LAUSD
ROOSEVELT HIGH SCHOOL
456 S. MATHEWS STREET

Project No.
16-41-126-01

Drawing No.
8

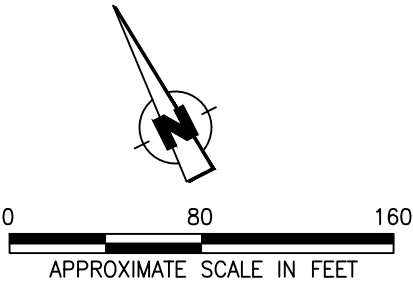


NOTES

1. Subsurface conditions will be allowed to equilibrate for a minimum period of 2 hours before monitoring is conducted.
2. A Landtec GEM 5000 landfill gas analyzer will be used to monitor for pressure, fixed gasses (O_2 , CO_2), methane and hydrogen sulfide.
3. If gas concentrations are less than the detection limits of the GEM 5000, instruments capable of measuring methane or hydrogen sulfide to levels of 0.005% (50 ppm) and 0.01 ppmv respectively such as a TIA 1000 or Jerome 631xs will be used.
4. Measurement of gas concentrations will be taken 2 times with a minimum 24-hour interval between measurements.
5. Ten (10) percent of readings will be confirmed by laboratory analysis. Methods To-3: EPA 15/16
6. Laboratory analysis will be conducted on samples with an O_2 reading less than 10%.

EXPLANATION

⊗ PROPOSED METHANE SAMPLE LOCATION



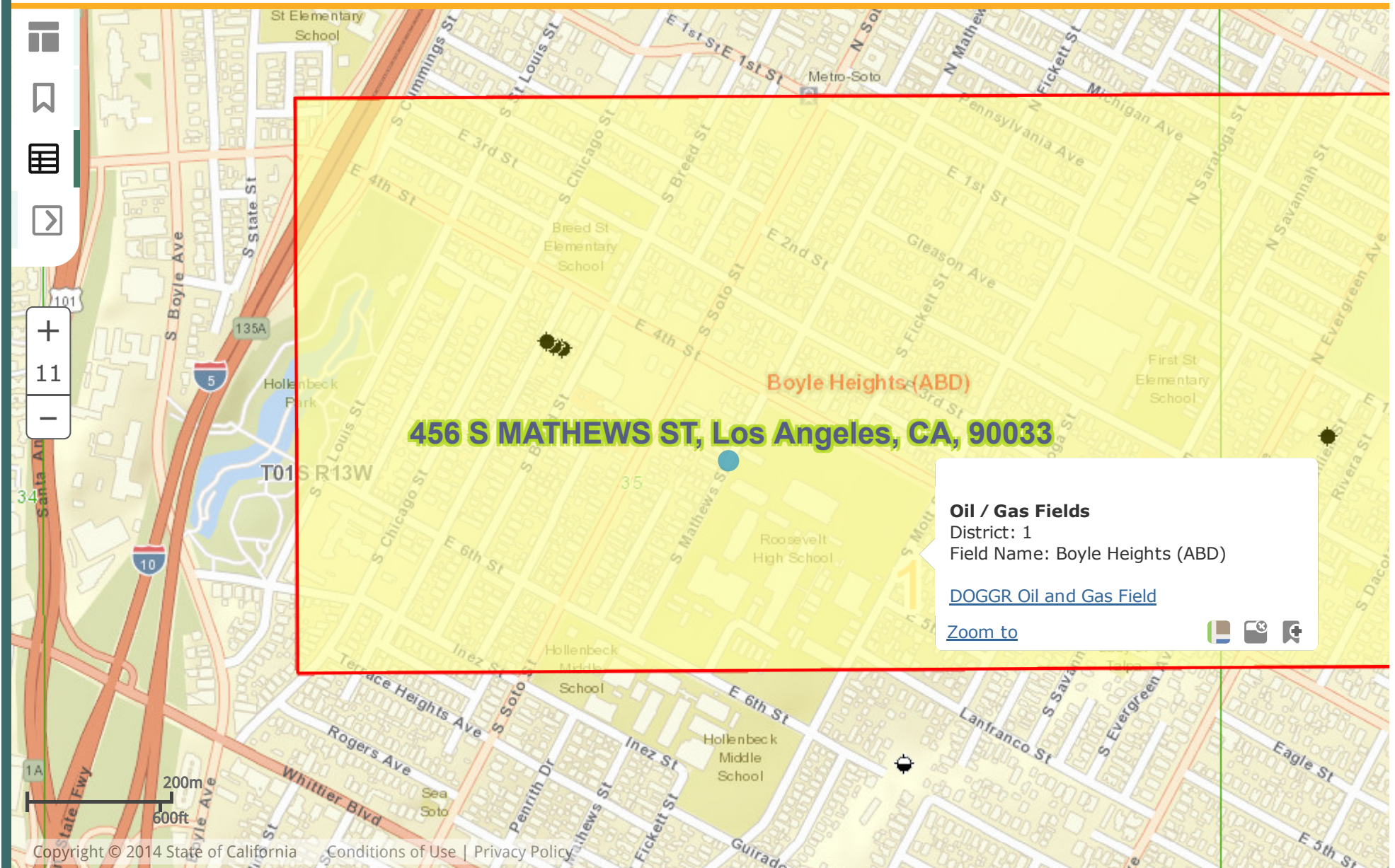
PROPOSED SAMPLE LOCATIONS- METHANE SAMPLING

APPENDIX B
DOGGR OIL WELL RECORDS



Department of Conservation

Division of Oil, Gas & Geothermal Resources Well Finder





Department of Conservation

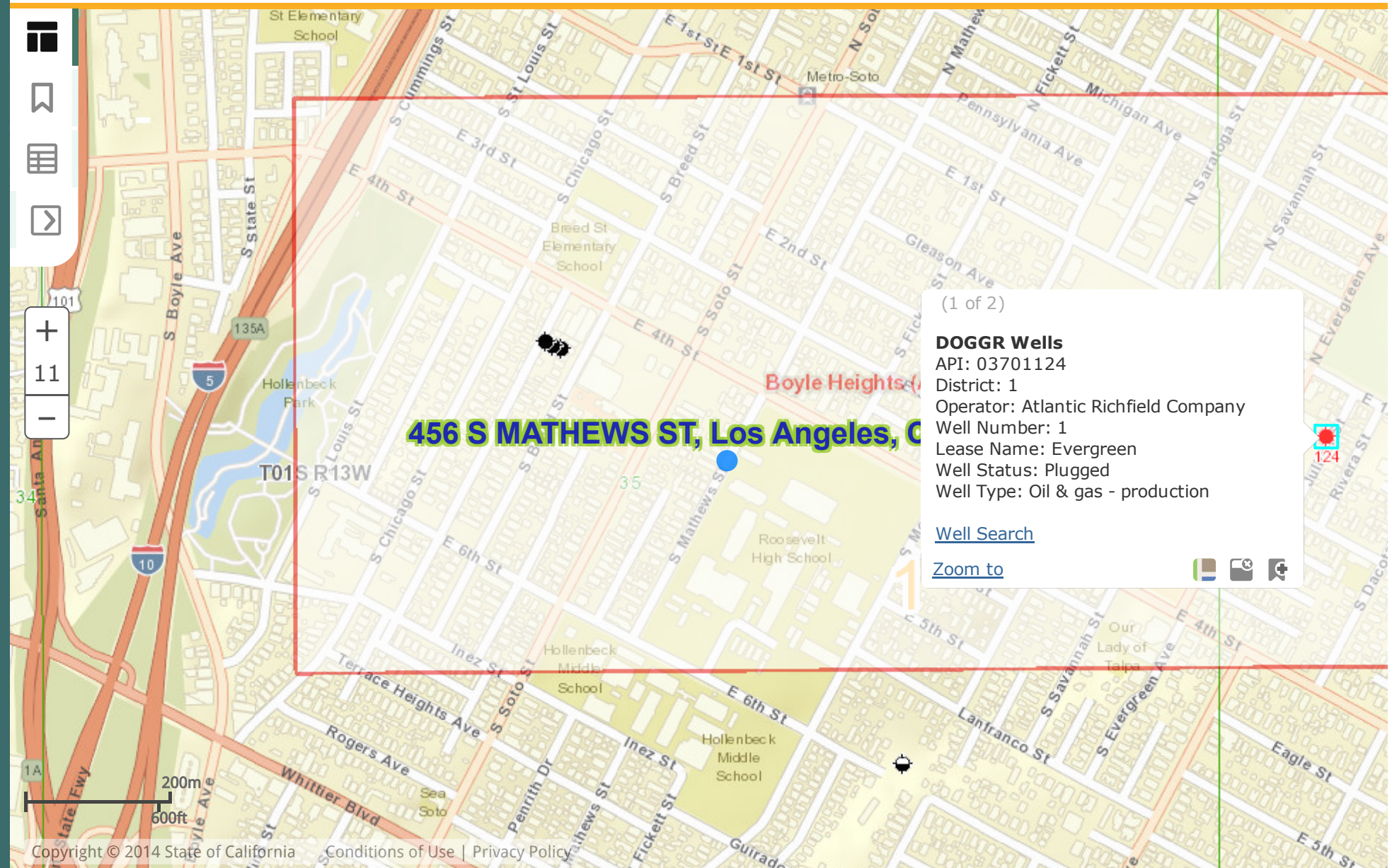
Division of Oil, Gas & Geothermal Resources Well Finder





Department of
Conservation

Division of Oil, Gas & Geothermal Resources Well Finder





Well Information

API #

03701124

Lease

Evergreen

Well #

1

County

Los Angeles [037]

District

1

Operator

Atlantic Richfield Company [A4525]

Field

Boyle Heights (ABD) [068]

Area

Any Area [00]

Section

36

Township

01S

Range

13W

Base Meridian

SB

Well Status

Plugged & Abandoned

Pool WellTypes

OG

SPUD Date

GIS Source

hud

Datum

83

Latitude

34.039539

Longitude

-118.202146

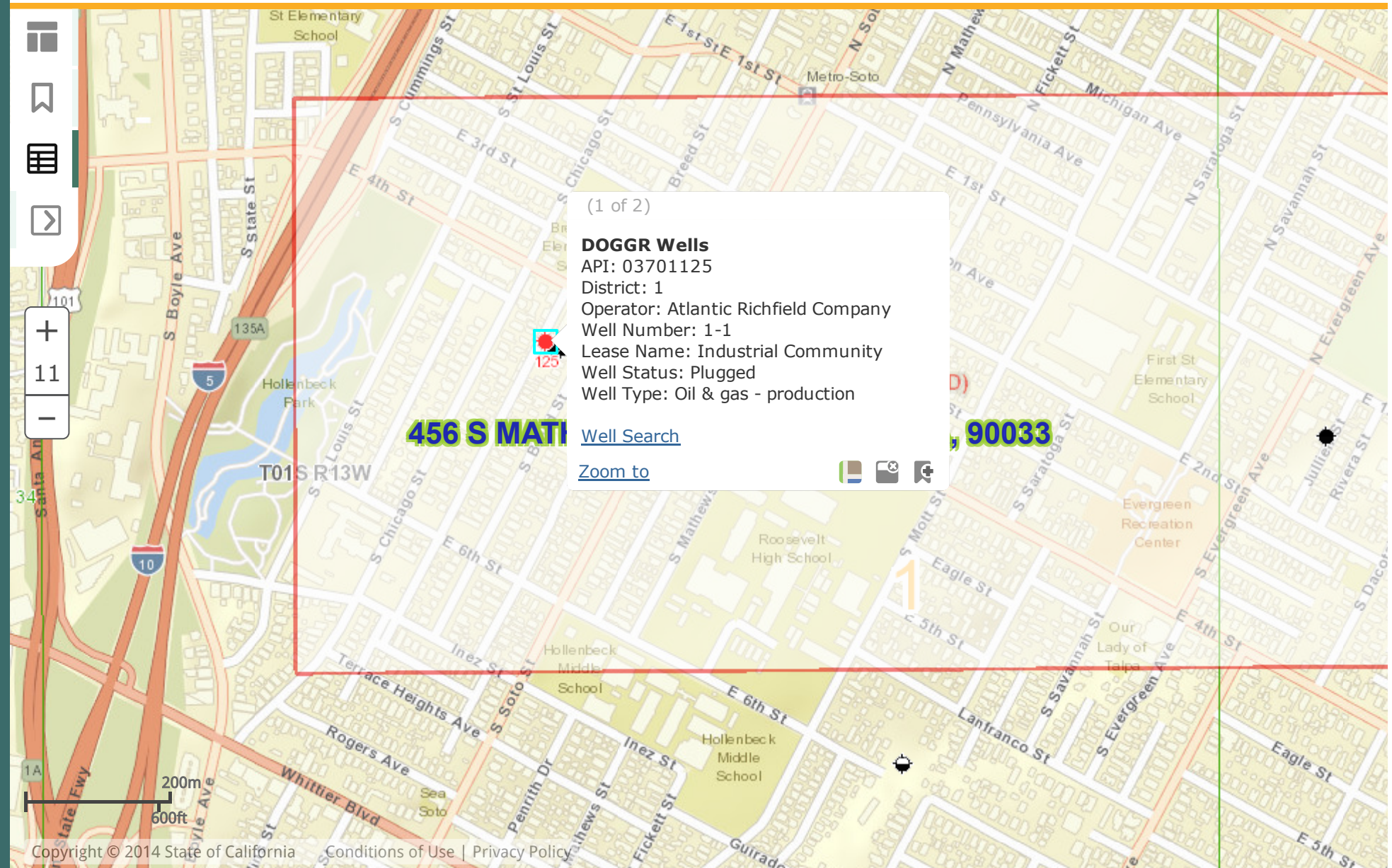
Map





Department of
Conservation

Division of Oil, Gas & Geothermal Resources Well Finder





Well Information

API #

03701125

Lease

Industrial Community

Well #

1-1

County

Los Angeles [037]

District

1

Operator

Atlantic Richfield Company [A4525]

Field

Boyle Heights (ABD) [068]

Area

Any Area [00]

Section

35

Township

01S

Range

13W

Base Meridian

SB

Well Status

Plugged & Abandoned

Pool WellTypes

OG

SPUD Date

GIS Source

hud

Datum

83

Latitude

34.040728

Longitude

-118.213953

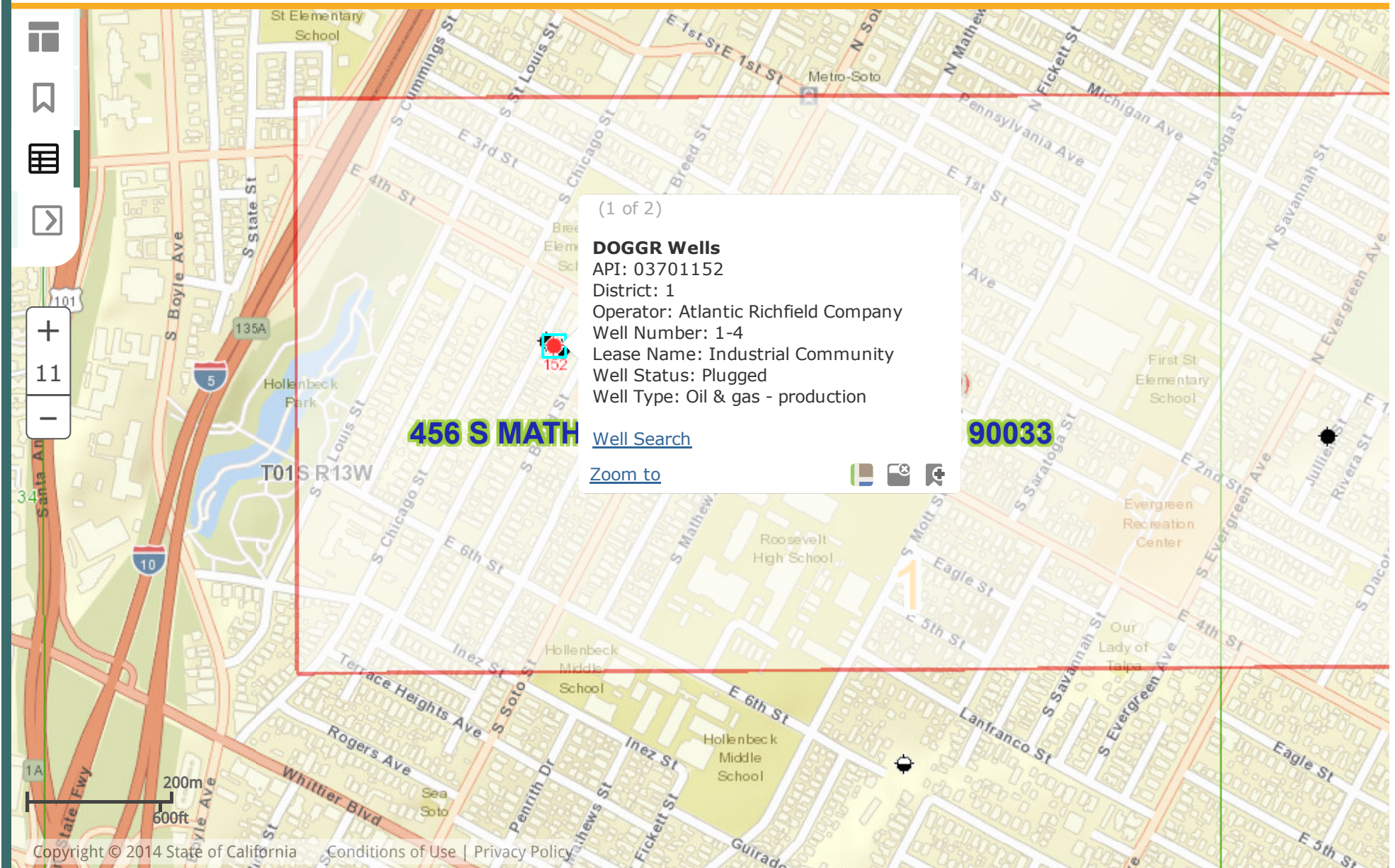
Map





Department of Conservation

Division of Oil, Gas & Geothermal Resources Well Finder





Well Information

API #

03701152

Lease

Industrial Community

Well #

1-4

County

Los Angeles [037]

District

1

Operator

Atlantic Richfield Company [A4525]

Field

Boyle Heights (ABD) [068]

Area

Any Area [00]

Section

35

Township

01S

Range

13W

Base Meridian

SB

Well Status

Plugged & Abandoned

Pool WellTypes

OG

SPUD Date

GIS Source

hud

Datum

83

Latitude

34.040688

Longitude

-118.213845

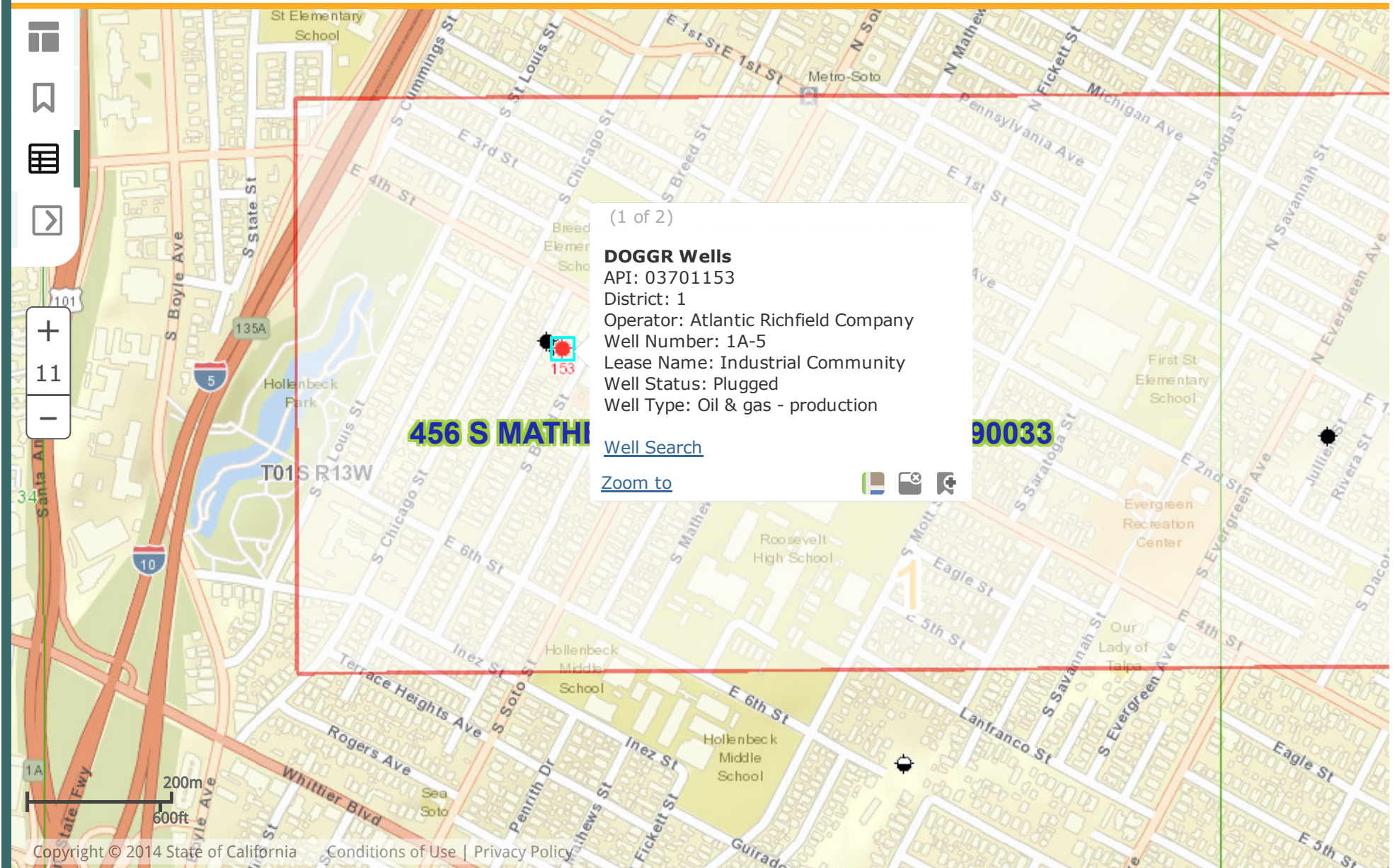
Map





Department of Conservation

Division of Oil, Gas & Geothermal Resources Well Finder





Well Information

API #

03701153

Lease

Industrial Community

Well #

1A-5

County

Los Angeles [037]

District

1

Operator

Atlantic Richfield Company [A4525]

Field

Boyle Heights (ABD) [068]

Area

Any Area [00]

Section

36

Township

01S

Range

13W

Base Meridian

SB

Well Status

Plugged & Abandoned

Pool WellTypes

OG

SPUD Date

GIS Source

hud

Datum

83

Latitude

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Longitude

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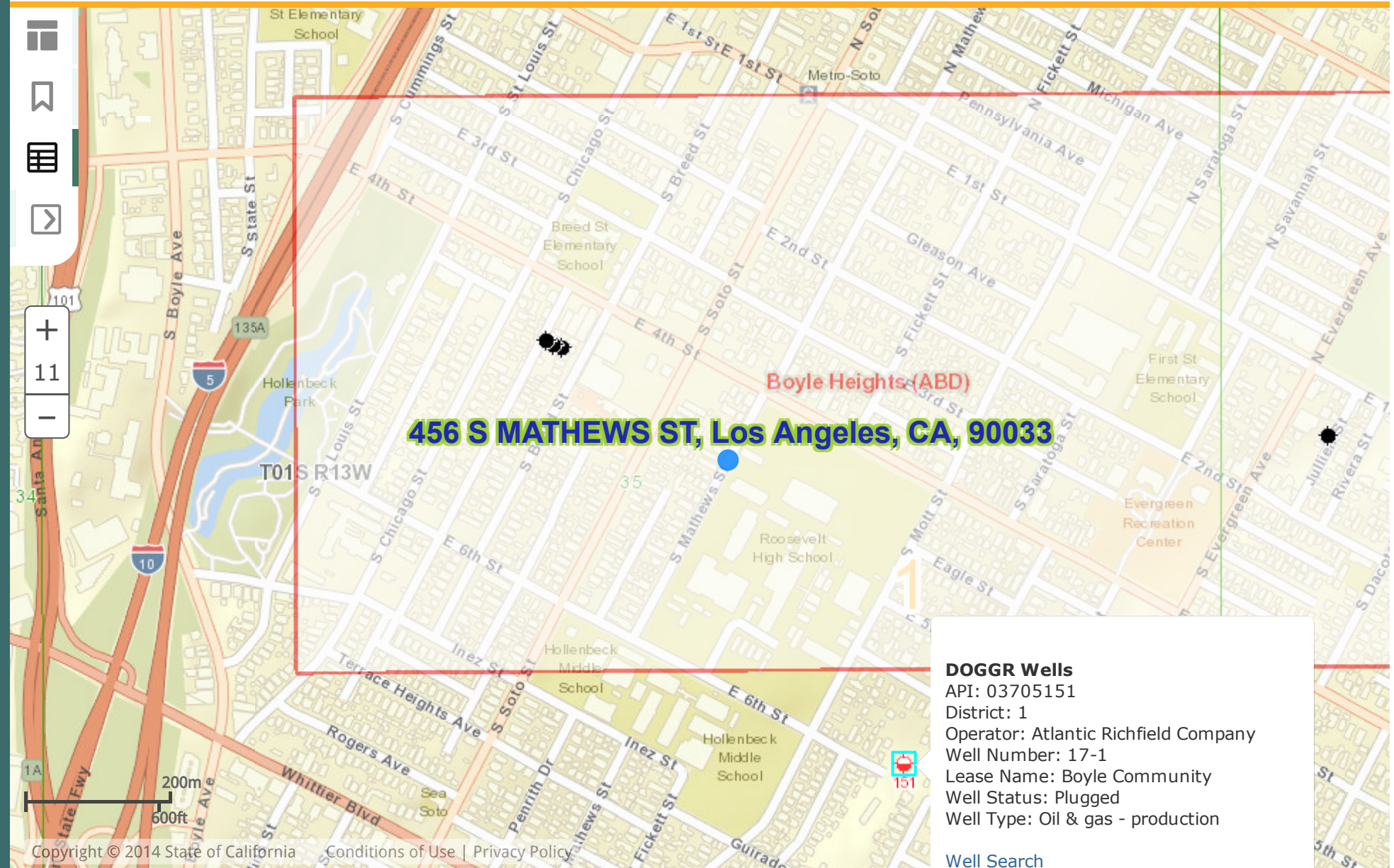
Map





Department of Conservation

Division of Oil, Gas & Geothermal Resources Well Finder





Well Information

API #

03705151

Lease

Boyle Community

Well #

17-1

County

Los Angeles [037]

District

1

Operator

Atlantic Richfield Company [A4525]

Field

Any Field [000]

Area

Any Area [00]

Section

35

Township

01S

Range

15W

Base Meridian

SB

Well Status

Plugged & Abandoned

Pool WellTypes

OG

SPUD Date

GIS Source

hud

Datum

83

Latitude

34.035444

Longitude

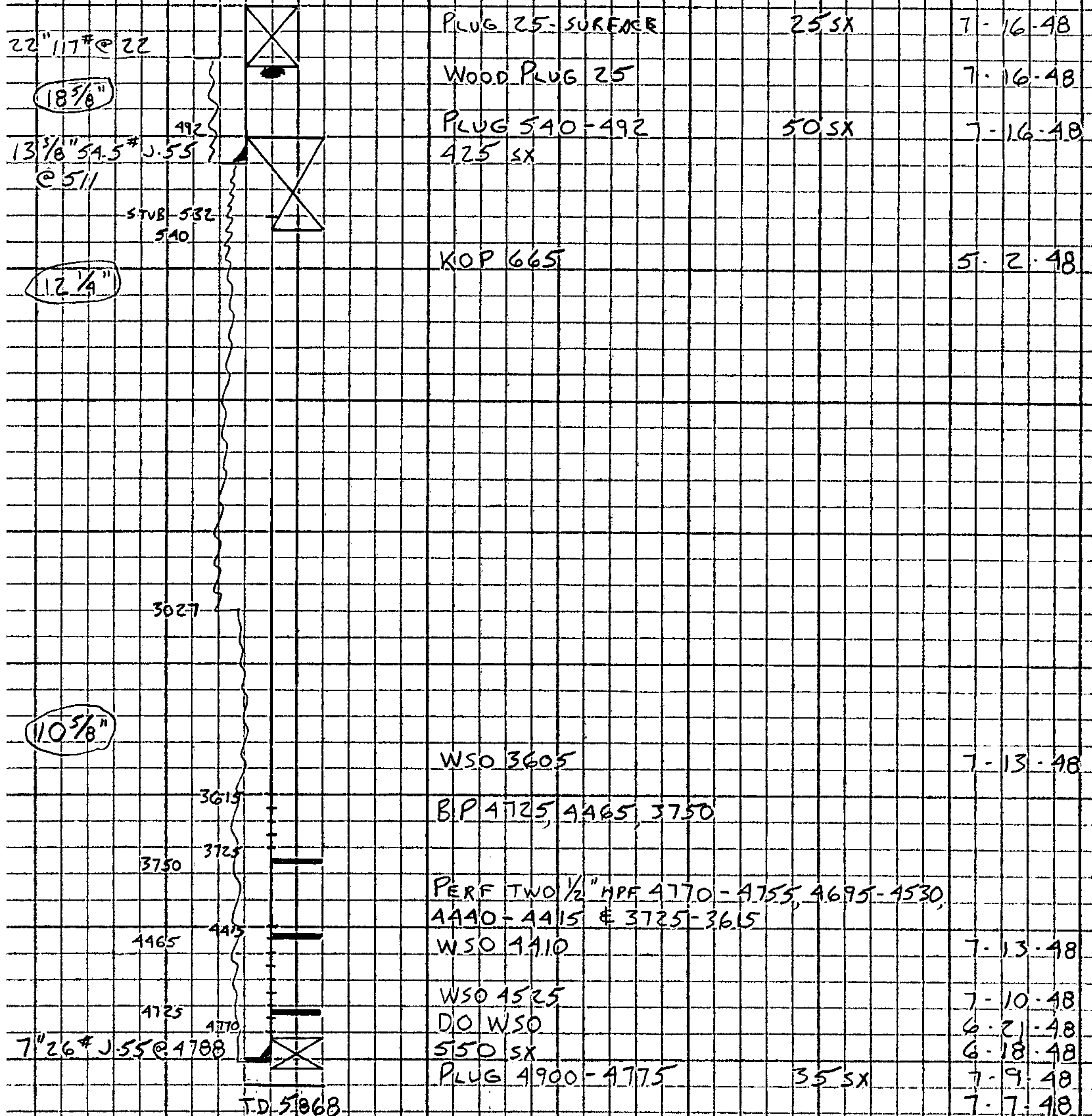
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Map



BOYLE COMMUNITY 17-1 REDRILL ELEV 285
03705151 ALL MEAS KB
ARSO 11 GR

SPUD 3-6-48
REDRILL 5-2-48
ABD 7-16-48



OPERATOR NAME CHANGE

ARCO Oil and Gas Co.

changed name effective April 8, 1994

to

ARCO Western Energy

WORK PERFORMED:

Drill _____ Redrill _____ Deepen _____

Plug _____ Alter casing _____

Water flood _____ Water disposal _____

Abandon _____

Other _____

STATUS:

(Date)

Producing _____

Recomp. prod. _____

Water flood _____

Water disposal _____

Abandoned _____

Other _____

MAP AND BOOK NCRECORDS FILED & DATE: Clerk Scary

Summary (dup.) _____

Log & Core (dup.) _____

History (dup.) _____

✓ E-log 40-4435 5/6/65 ✓

Radio log _____

✓ D. Survey Surf-4694 5/6/65 ✓Other Depmeter Survey - Run 1 5/6/65 ✓(Check records for signature
and correct name of operator
or well, S.T.R. and field.)

Location _____ Notice states _____

Elevation _____ Notice states _____

Production Reports _____

(If production reports not
received, make notation and
and inform Sr. Steno when rec'd.)

If stimulation or disposal well:

Form 121 _____ Folder _____

RECORDS & REQUIREMENTS CHECKED: Eng. Rel

Surface inspection _____

Data needed NONE Clerk:

Request records _____ F 170 _____

Correct records _____ F 165 _____
(Specify) 165A _____

CARDS _____

BOND: Blanket

Hold _____ Reason _____

Release _____ Date elig. _____ F 150b _____

End premium year _____

Release requested _____ (Check one)

Bond superseded _____

Well abandoned _____

FINAL LETTER _____ F 159 _____

and

FILE CLEARED _____ F 121 _____

* Redrill I Depmeter Survey - Run 1 ✓
 2 ✓
 3 ✓
 4 ✓
 5 ✓

* ~~Redrill I~~ Depmeter Survey - Run 1 ✓

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

RECEIVED
SEP 11 1948
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator RICHFIELD OIL CORPORATION Field (LOS ANGELES DISTRICT)
Well No. Boyle Community 17-#1 Sec. 35, T. 1 S, R. 12 W, S. & M. B. & M.
283.67' Easterly along centerline of 6th St. from its intersection with Elevation of ground above sea level 299.22' feet.
Location the centerline of Orme Ave., thence All depth measurements taken from top of K.B.
78.44' Northerly at 90°. which is _____ feet above ground.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date August 20, 1948Signed Shas E. EnseyJ. R. Gregeth
(Engineer or Geologist)H. F. Boggs
(Superintendent)Title Development Engineer
(President, Secretary or Agent)Commenced drilling 3-6-48 Completed drilling 7-7-48 Drilling tools Rotary

Total depth _____ Plugged depth _____ GEOLOGICAL MARKERS DEPTH

Junk Orig. Hole 4694' Plugged Depth: 980-757'Redrill: 5868' Plugs: 540-492' 4900-4775' 25' Surface.Bridge Plugs: 4725', 4465' and 3750'.Junk: Orig. Hole 1624' D.P. subs, D.C., Reamer and Bit 4694-3070'Commenced producing _____ Abandoned 7-16-48 Flowing/gas lift/pumping _____
(date) (cross out unnecessary words)

Initial production

Production after 30 days

Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
22"	22'	Surface	117#	New				Cemented	
13 3/8"	511'	Surface	54.5#	New	Smls.	J-55	18 5/8"	425	
7"	4788'	532'	26#	New	Smls.	J-55	10 5/8"	550	
		(7" Originally landed at surface, Pulled from 532')							

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
7"	3615 ft.	3725 ft.				Gun Perforator
"	4415 ft.	4440 ft.	2-1/2" holes/ft.			" "
"	4530 ft.	4695 ft.				" "
"	4755 ft.	4770 ft.				" "
						" "

JG/jb Electrical Log Depths _____ (Attach Copy of Log)

Boyle Community 17-#1
Los Angeles District

35 - 1 S - 13 W

LOG AND HISTORY

RECEIVED
SEP 11 1948

LOS ANGELES, CALIF. 7A

1948

3/6 thru
3/8

Commenced drilling operations 11 PM March 6, 1948. Drilled 18 5/8" Hole from surface to 512' - 0-5' 5' surface sand and gravel.

5-158' 153' Surface sand & gravel

158-485' 327' Blue shale

485-512' 27' Shale

3/8

Ran and cemented 13 3/8" 54.5# Smls. T& C Casing at 511' w/425 Construction Cement using 3 % aquagel mix. Landed casing and installed B.O.P. Equipment.

3/9

Tested shaffer gate and hydril B.O.P. equipment w/1000# for 12 min. w/no loss. Drilled out cement and shoe 320-511' and drilled and cored 12 1/4" directional hole 512-2600'.

512-653' 141' Shale w/stks sand

653-654' 1' Sandstone shell

654-728' 74' Shale w/stks sand

728-731' 3' Hard shale strks

731-760' 37' Hard shale

768-887' 119' Hard shale & shale

887-990' 103' Shale, stks sand & thin shells

990-993' 3' Shale and sand

993-1045' 52' Shale

1045-1061' 16' Shale w/thin stks sand

1061-1083' 22' Sand and shale

1083-1085' 2' Sandstone shell

1085-1087' 2' Shell

1087-1165' 78' Shale

1165-1236' 71' Sand and shale

1236-1245' 9' Shale and shells

1245-1280' 35' Shale

1280-1285' 5' Shells

1285-1317' 32' Shale

1317-1383' 66' Hard shale w/stks sand

1383-1419' 36' Shale

1419-1423' 4' Hard shell

1423-1441' 18' Hard sand and shell

1441-1446' 5' Shell

1446-1503' 57' Sand

1503-1532' 29' Shale and shells

1532-1591' 59' Shale

1591-1651' 60' Soft shale

1651-1706' 55' Shale

1706-1708' 2' Shell

1708-1836' 128' Sandy shale

RECEIVED
SEP 11 1948
LOS ANGELES, CALIFORNIA

1836-1944'	108'	Sandy shale w/shells
1944-1964'	20'	Shale
1964-1994'	30'	Shale
1994-2118'	124'	Shale w/shells
2118-2143'	25'	Shale w/shells
2143-2309'	166'	Sand & shale
2309-2313'	4'	Hard sand
2313-2316'	3'	Hard sand
2316-2318'	2'	Shale and shells
2318-2399'	81'	Core #1 thru #9 (See core record attached)
2399-2410'	11'	Shale
2410-2425'	15'	Shale and sand
2425-2500'	75'	Sticky shale
2500-2559'	59'	Sand and shale
2559-2600'	41'	Shale

3/25 Ran Schlumberger Electric Log recording 2599'.
511' and dipmeter survey.

3/25 thru 4/21 Drilled and cored 12 $\frac{1}{4}$ " directional hole 2600-3431'.
Reduced hole to 10 $\frac{3}{8}$ " and cored 3431-3452'.
Reduced hole to 8 $\frac{1}{2}$ " and cored 3452-4437'. Opened 8 $\frac{1}{2}$ " hole to
10 $\frac{5}{8}$ " 3452-4130'.

2981-3005'	24'	Sticky shale
3005-3006'	1'	Sticky shale
3006-3016'	10'	Core #51 (See Core Record attached)
3016-3035'	19'	Sticky shale
3035-3037'	2'	Shale
3037-3452'	415'	Core #52-#95 (See Core Record attached)
3452-3470'	18'	Sand
3470-4437'	07'	Core # 96-#194 (See Core Record attached)

4/21 Ran Schlumberger Electric Log recording 4435-2599'.

4/22 thru 4/24 Drilled and cored 8 $\frac{1}{2}$ " Directional hole 4437-4527'.
Opened 8 $\frac{1}{2}$ " hole to 10 $\frac{5}{8}$ " 4130-4450'

4437-4527' 90' Core #97 to #203 (See Core Record Attached)

4/24 Ran Schlumberger Dipmeter Survey recording from 4400'.

4/24 thru 4/26 Drilled and cored 8 $\frac{1}{2}$ " Directional hole 4527-4694'.

4527-4694' 267' Core #204-#220 (See Core Record attached)

4/26 Drill pipe parted leaving 1624.11' D.P., D.C., subs reamer and bit
on bottom (4694.05') w/top of fish at 3070'.

4/26 thru 4/20 Fishing

TOTAL DEPTH ORIGINAL HOLE: 4694' Reached 4/26/48.

RE: Boyle Community 17-#1

RECORDED
SEP 11 1948

4/29 With open-end 4 $\frac{1}{2}$ " 16.6# F.H. D.P. hanging at 980' pumped in 260
sax Construction Cement.

REDRILL:

4/30 and Found top of cement plug at 756' and drilled out to 782'.
4/31

5/1 W/open end 4 $\frac{1}{2}$ "-16.6# F.H., D.P. hanging at 771' pumped in 250 sax
Construction cement.

5/2 thru Found top of hard cement at 580' and drilled out to 665'. Drilled
5/18 and cored 12 $\frac{1}{4}$ " directional hole 665-3027'

665-684'	19'	Shale
684-781'	97'	Shale w/occ. sand
781-851'	70'	Shale
851-868'	17'	Shale
868-959'	91'	Shale w/sand stks of shells
959-1188'	229'	Shale
1188-1248'	60'	Shale & Shells
1248-1272	24'	Shale
1272-1356'	84'	Shale
1356-1391'	35'	Shale
1391-1479'	88'	Shale and sand stks
1479-1503'	24'	Sand and shale
1503-1528'	25'	Shale
1528-1601'	73'	Sticky Shale and Shale
1601-1613'	12'	Shale w/thin Sand Stks
1613-1651'	38'	Shale w/occ. Shells
1651-1655'	4'	Hard Sand
1655-1738'	83'	Shale
1738-1768'	30'	Shale w/sand stks
1768-1827'	59'	Shale
1827-1947'	90'	Shale
1947-1977'	30'	Shale and Shells
1977-2037'	60'	Shale
2037-2067'	30'	Shale and shells
2067-2098'	31'	Shale
2098-2127'	29'	Shale w/stks sand
2127-2157'	30'	Shale
2157-2187'	30'	Shale and shells
2187-2275'	88'	Shale and Sand
2275-2325'	50'	Shale and shells
2325-2354'	29'	Shale and Sand
2354-2417'	63'	Shale
2417-2445'	28'	Shale
2445-2505'	60'	Shale and sand
2505-2507'	2'	Shell
2507-2597'	90'	Shale and shells
2597-2631'	34'	Shale and shells
2631-2651'	20'	Shale
2651-2661'	10'	Hard sand

2661-2721'	60'	Shale and shells
2721-2745'	24'	Shale
2745-2751'	6'	Shale and shells
2751-2781'	30'	Hard sand and shell
2781-2811'	30'	Shale and sand
2811-2901'	90'	Shale
2901-2946'	45'	Shale and shells
2946-2954'	8'	Shale
2954-2975'	21'	Shale
2975-2977'	2'	Shell
2977-2996'	19'	Sand and shale
2996-3027'	31'	Shale

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5/19 Ran Schlumberger Electric Log Recording from 3025' and Dipmeter Survey.

5/19 thru 5/27 Reduced hole to 8 $\frac{1}{2}$ " and drilled and cored directional hole 3027'-3763'.
Opened 8 $\frac{1}{2}$ " hole to 10 5/8" 3027-3560'

3027-3763' 736' Core #1 thru #74 (See core record attached)

5/28 Ran Schlumberger Electric Log Recording from 3760' and Dipmeter Survey.

5/28 thru 6/5 Drilled and cored 8 $\frac{1}{2}$ " hole 3763-4350'
Opened 8 $\frac{1}{2}$ " hole to 10 5/8" 3560-4016'

3763-4350' 587' Cores #75 thru #134 (See core record attached)

6/5 Ran Schlumberger Electric Log Recording from 4350' and Dipmeter Survey.

6/8 thru 6/13 Drilled and cored 8 $\frac{1}{2}$ " hole 4350-4789.
Opened 8 $\frac{1}{2}$ " hole to 10 5/8" 4016'-4523'

4350-4789' 439' Core #135 thru #179 (See Core Record Attached)

6/13 Ran Schlumberger Electric Log Recording from 4788'.

6/15 and 6/16 Ran Schlumberger Dipmeter Survey.

6/17 Opened 8 $\frac{1}{2}$ " hole to 10 5/8" 4523-4789'.

6/18 Ran and cemented 7" 26# J-55 Smls. Casing at 4788' w/550 Sax Modified Cement using 2% Aquagel Mix.

6/19 thru 6/21 Landed casing. Removed 4 $\frac{1}{2}$ " B.O.P. equipment and installed 3 $\frac{1}{2}$ " B.O.P. equipment. Tested shaffer gate w/750# for 15 min., and tested Hydril B.O.P. w/900# for 15 min. Found top of cement at 4740' and drilled out 6" hole 4740-4790'.

6/21 WSO on 7" Casing

Ran JFT W/Olympic Casing Packer on 3 $\frac{1}{2}$ " 15.5# D.P., set packer at 4752' w/2 7/8" perf. tail to 4770'. 3/4" bean, 31' water cushion, balance dry drill pipe opened valve at 10:35 P.M. closed valve at 11:05 P.M. Valve Open 30 mins. Had puff blow-then dead for balance of test. Recovered 35' cement cut mud, no free water. W.S.O.--O.K.

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- 6/22 and 6/25 Drilled and cored 6" directional hole 4790-4892' SEP 11 1948
4790-4892' 102' Cores #180 thru #190 (See Log Attached)
- 6/24 Production Test 4788-4892'
Ran JFT W/Olympic Casing Packer on 52 stands 3 $\frac{1}{2}$ " 15.5# Hydril D.P. w/10 w/10 stands and 1 single water cushion (930+), balance dry D.P. 3/8" bean. Set packer at 4750' w/ 2 7/8" tail including 21' perfs. and 2 pressure bombs extending to 4782'. Opened valve at 5:05 P.M., closed valve at 6:55 P.M. Valve open 1 hr. 50 mins. Had weak, steady blow of air for 15 mins increasing to fair steady blow of air for balance of test.
Opened Rienie backscuttling valve, pulled packer loose and backscuttled out cushion and approx. 750' net rise of heavy, gas out mud, testing 130-420 GPG. No water or Oil.
- 6/25 Drilled and cored 6" directional hole 4892-5868'.
- 7/7 Total Depth 5868' 1st Redrill Reached 6/25/48
- 7/7 Ran Schlumberger Electric Log Recording from 5868'.
- 7/8 Ran Schlumberger Dipmeter Survey.
Ran in w/221' 2 7/8" 6.5# tubing on 51 stands and single 3 $\frac{1}{2}$ " 15.5# D.P. W/open end of tubing hanging at 4900'. Pumped in 35 sack concrete structure cement w/ top at 4681'.
- 7/9 Found top of hard cement at 4725' and drilled out to 4775'. Location of hard cement in 7" casing at 4775' witnessed and approved by D.O.G.
Ran McCullough Gun Perforator and shot 2-1/2" Burrless holes/foot 4755-4770'
Production Test 4755-4770'
Ran J.F.T. w/olympic casing packer, B-R Safety Jt. and Rienie backscuttling valve on 51 2/3 stands of 3 $\frac{1}{2}$ ", 15.5# D.P. 30' water cushion Balance dry. Set Packer at 4729' 2 7/8" Perf. Tail to 4754' 3/8" bean 2 pressure Recorders. Opened valve at 5:50 P.M. Closed at 6:50 P.M., open 1 hr. Had 5 mins. med. strong, steady air blow, balance weak, steady air blow. Pulled loose and out o.k. Recovered 225' net rise cement cut drilling mud w/very light oil scum on top. No salt water obtained.
- 7/10 Ran McCullough wireline bridge plug and set at 4725'. Ran McCullough Gun Perforator and shot 4-1/2' holes at 4525'.
W.S.O. Test 4-1/2" Holes in 7" Casing at 4525'.
Ran J.F.T. w/Olympic Packer, B-R Safety Jt. and Rienie Backscuttling valve on 49 1/3 stands. 3 $\frac{1}{2}$ " 15.5# D.P., 30' water cushion balance dry. Set packer at 4503', 2 7/8" perf. tail to 4523' 3/8" bean, 2 pressure recorders. Opened valve at 3:48 P.M. closed at 4:48 P.M., Open 1 hr. had 5 mins. med. strong steady air blow. W/blow declining to light steady air at end of test. Pulled loose and out o.k. Recovered 65' net rise of med. drilling fluid. No free or salt water.
- 7/11 Ran McCullough Gun Perforator and shot 2-1/2" holes/ft. From 4695-4530' for a total of 330 holes.

SEP 11 1948

LOS ANGELES, CALIFORNIA

7/12

2 Production Test 4530-4695'

Ran J.F.T. w/Olympic Casing Packer on 49 1/3 stands 3 1/2" 15.5# D.P. 30' water cushion, 3/8" bean. Set packer at 4503' w/ 2 7/8" perf. tail and 2 pressure bombs, extending to 4530'. Opened valve at 1:40 P.M., closed valve at 2:40 P.M. Valve Open 1 hr. Had strong steady blow w/gas to surface in 20 mins. Decreasing from med. steady to light steady blow at end of test. Pulled loose o.k. Recovered 780' net rise heavy gassy drilling fluid grading to est. 120' muddy salt water. Mx. 575 G.P.G.

7/12

Ran McCullough Bridge Plug and set at 4465'. Ran McCullough Gun Perforator and shot 4-1/2" holes at 4410'.

7/13

W.S.O. Test on 4-1/2" holes at 4410'.

Ran J.F.T. w/Olympic casing packer on 3 1/2" - 15.5# D.P. 30' water cushion, 3/8" bean. Packer set at 4388' and perf. tail to 4410'. Opened valve at 11:46 P.M. Closed at 1:05 A.M. Open 1 hr. 19 mins. Had 1 min. weak steady blow w/occasional puffs during remainder of test. Recovered 100' net rise drilling mud. Ran McCullough Perforator and shot 2-1/2" Holes/ft 4415-4440'.

PRODUCTION TEST 4415-4440'

Ran J.F.T. w/Olympic Casing Packer on 48 stands. 3 1/2" 15.5# D.P. 30' water cushion, 3/8" bean. Set packer at 4390' w/ 2 7/8" perf. tail and 2 pressure bombs to 4412'. Opened valve at 9:32 A.M. closed 10:32 A.M. Open 1 hr. Had med. steady blow decreasing to light steady blow throughout. Recovered 180' drilling mud, grading to med. heavy mud with scum of oil at bottom. Ran McCullough Bridge plug and set at 3750'. Ran McCullough Gun Perforator and shot 4-1/2" holes at 3605'.

W.S.O. Test 4-1/2" holes at 3605'.

Ran J.F.T. w/Olympic Casing Packer on 3 1/2" 15.5# D.P. w/30' water cushion and 3/8" bean. Set packer at 3575' with 2 7/8" perf. tail and 2 pressure bombs to 3603'. Opened valve at 8:11 P.M., closed 9:13 P.M. Open 1 hr. 2 min.s Had weak heading blow to occasional puffs for 55 mins., last 7 mins. Fair steady blow of air. Recovered 270' thin mud w/considerable gas at bottom and slight scum of oil.

7/14

Ran McCullough Gun Perforator and shot 2-1/2" holes/ft. from 3725' to 3615' total of 220 holes.

Production Test 3615-3725'.

Ran J.F.T. w/Olympic casing packer on 39 stands 3 1/2" 15.5# D.P. 30' water cushion, 3/8" bean. Set packer at 3581' w/ 2 7/8" perf. tail and 2 pressure bombs to 3603'. Opened valve at 12:00 noon, closed valve at 1:00 P.M., open 1 hr. Had medium steady blow of air 9 mins. w/gas to surface, decreasing to medium blow by heads for balance of test.

RE: Boyl Community 17-#1

RECORDED
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LOS ANGELES, CALIF. 97A

Recovered 2600' net rise, 540' heavy gas cut mud, 2060' grading to thin muddy salt water testing 240-444 G.P.G.

7/15

Removed B.O.P. equipment unlanded 7" casing.

7/16

Ran McCullough Magne-Tector. Found 7" casing free at 565', shot at 531' with Ford-Alexander cellar shot and recovered 512' 7" casing. W/open end 3 1/2" 15.5# D.P. hanging at 540', pumped in 50 sax construction Cement top A 465+. Found top of hard cement at 492' witnessed and approved by D.O.G.

Set wooden plug in 13 3/8" casing at 25', filled to surface w/25 sax cement. Witnessed and approved by Los Angeles Fire Dept.

7/16

Abandoned.

7/18

Standing.

7/19

Welded steel plate on top of 13 3/8" casing. Witnessed and approved by Los Angeles Fire Dept. Abandonment completed.

PRESENT CONDITION OF WELL:

Casing Record:

22'	22"	117#	Cond.	C	38'
13 3/8"		54.5#	C	C	511'
7"		26#		C	4788' W.S.O. Pulled from 532'

4 1/2" holes at 4525' W.S.O.

4-1/2" holes at 4410' W.S.O.

4-1/2" holes at 3605' W.S.O.

Perfs. 3615-3725'; 4415-4440'; 4530-4695'; 4755-4770'; W 2-1/2" holes/ft.

Plugs: 540-492', 4900-4775' Old Hole 980-665'.

Bridge Plugs: 4725', 4465' and 3750'

Total Depth: Orig. hole 4694' R/D 5868'

Junk: Orig. Hole 1624' D.P. subs, D.C. Reamer and Bit 4694-3070'

Plugged surface W/25 Sax Cement and Capped Stub of 13 3/8" casing w/ steel plate.

ABANDONED; 7/16/48.

RICHFIELD OIL CORPORATION - DRILLERS

W. H. Backus

Sam Enochs

F. L. Jennings

F. P. Ramirez

Al Reed

Jack Sanders

L. Turpin 121

M. O. Wallis

K. L. Young

MAP	MAP BOOK	CARDS
		CE/jb

BOND

RICHFIELD OIL CORPORATION

BOYLE COMMUNITY 17-1

L. A. City Area
L. A. County

RECORDED

SEP 11 1948

LOS ANGELES, CALIFORNIA

Loc: 283.7' E'ly along C/L 6th Street from intersection of C/L of Orme Avenue,
thence 78.4' N'ly at 90°.

	FROM	TO	RECOVERY		DESCRIPTION
#1	2313	2323	3' 2'6"	SS	Lt gy, fn to med-crse grnd, poorly sorted, massive, hd, dense, cmtd.
			0'6"	SLTST	Dk olive gn-gy, masv, firm; W/ thin interbeds & pockets of fn gy SS.
#2	2323	2333	10'	SLTST & SS	Sltst (80%) as above, W/ interbeds (up to 3") of lt gy, fn grn, soft, easily friable, well sorted, silty SS (aggreg: 20%); cross-bedded; poor dips.
#3	2333	2339	6'	SLTST & SS	Sltst as above (90%); SS as above (10%). Poor 20° dips.
#4	2339	2349	10'	SLTST & SS	Sltst as above (70%); W/ lt blue-gy, fn grnd, silty SS as thin interbeds in sltst, and W/ 2' bed at 2' from top. Fair dip of 15°. Instant gas flash at bottom.
#5	2349	2359	10'	SLTST & SS	Sltst (80%), dk olive gn-gy, masv, firm, W/ 20% lt gy, fn grnd, well sorted, soft, easily-friable, silty SS as interbeds (up to 1' thick); Cross-bedded. Dips vary from 15° to 20°. No cut, stn or odor.
#6	2359	2369	10'	SLTST & SS	Interbdd as above (50/50). Poor dips.
#7	2369	2379	10'	SLTST & SS	Sltst (70%) and SS (30%) as above. One 1' bed of silty gy SS at 4' from bottom. Good 20° dip.
#8	2379	2389	10'	SLTST	Olive drab, micaceous & masv, occas quite sdy, W/ occas thin strks (up to 5") of lt gy fn grnd, silty sandstone; v. soft & friable, clean, well sorted; usually having dk gy silt laminae thruout SS strks. These frequently show xbddg, but where consistent banding is present the dip averages 18°. W/ 8" strk of lt gy, med-fn, well sorted, clean, permeable, friable SS at approx 4-1/2' from top. A good 18° dip present as a lt gy band on sltst at bottom.

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RE: Boyle Community 17-1

Core Record

LOS ANGELES, CALIFORNIA

	<u>FROM</u>	<u>TO</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
#9	2389	2399	9'	SLTST As above; v. sandy, W/ numerous strks of silty SS as above. Sandstone is v. soft & friable. W/ two thin lenses of firm, buff-colored claystone at 7-1/2' and at 8-1/2' from top.
#10	2600	2610	10'	SLTST Olive gn-gy, masv, v. firm, micaceous; W/approx 5% lt bl-gy, clean, well sorted, soft, silty, gy SS as pockets in sltst and as thin beds along which the formation parts. No good dips. No flash.
#11	2610	2620	10'	SLTST As above. Good dips on SS partings (18°-20°). No flash.
#12	2620	2630	10'	SLTST As above, W/ fair dips of 20°. High-angle fractures (60°-70°), first noted in Tray 2, and increasing in amount, W/ bottom tray being badly broken & fractd. Instant gas flash at top.
#13	2630	2640	10'	SLTST As above, W/ approx 5% lt gy, fn grnd SS as pockets and partings. Numerous fracts thru-out core, W/ 60°-70° angles predominating, but W/ fract angles varying from 20°-90°. Fair dips of 15-20°. No flash.
#14	2640	2650	10' 7' 3'	SLTST As above. SS Lt bluish-gy, silty, fn grnd, loose; W/ 2" lt brn, unevenly stnd, loose, med-crse grnd, perm, oil stnd sand at 4" from bottom of core. Distillate odor, amber cut.
#15	2650	2660	10'	SLTST & GY SS As above (80% sand; 20% sltst).
#16	2660	2670	3' 1'6" 1'6"	SLTST Dk brn, masv, finely micaceous, W/numerous lenses & spots of fn grnd gy sd. DRLG Intermixed W/ sand & sltst. No flash; no MUD odor.
#17	2670	2680	10'	SLTST As above, W/ occas thin strks (1/4"-1") of fn grnd gy sand. No flash; no odor.
#18	2680	2690	10'	SLTST & In alternating beds. Sltst (80%) is dk gy, masv, micaceous. Sand (20%) is gy, fn grnd, well sorted, easily friable. No cut, odor or flash.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#19	2690	2700	10'	SLTST As above, W/ common thin strks of gy sd. Sand is fn grnd, easily friable, well sorted. Dips on sand-sltst partings average 27°. 5 second flash; no cut or odor.
#20	2700	2710	10'	SLTST & GY SS As just above (sltst 80%; SS 20%). No flash or cut.
#21	2710	2712	1'1" 0'3" 0'10"	SLTST As above. SLTST SHELL V. hd.
#22	2712	2722	9'	SLTST & GY SD Sltst (78%) is brn-gy, masv, as above. Sandstone is lt gy, v. easily friable, fn grnd, well sorted, v. perm; interbdd in 1" to 5" beds. Good 35° dip at 3' from top on bddg plane. No flash; no show.
#23	2722	2735	10'	SLTST & GY SS Sltst (80%) as above. Sandstone (20%) is lt gy, soft, easily friable, fn grnd, well sorted, W/ sulphide odor; no cut. 29-34° dips. 5 second flash at bottom.
#24	2735	2745	10'	SLTST & GY SS Sltst (65%) as above. SS (35%) is lt gy, v. fn grnd, soft, easily friable, silty, as above. No good dips; no odor or flash.
#25	2745	2752	7'	SLTST As above, W/ num strks of fn grnd, med gy, silty sandstone, and W/ 10" SS Shell at bottom. W/ 6" strik of lt gy, med-orse, friable sandstone at 5-1/2" from top. Fair dips of 22° in SS Shell. Instant flash at top of barrel.
#26	2752	2759	5'	SS Lt gy, friable, well sorted, perm, fn grnd, interbdd W/ strks of brn, micaceous, fn grnd, sltst. Dip 24°.
#27	2759	2769	10'	SS & SLTST Sandstone (90%) is lt gy, friable, fn-orse grnd. No dip. No flash. Siltstone (10%) is brn, masv, W/ some strks of fn grnd gy sd. Dip 26°.

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	FROM	TO	RECOVERY	DESCRIPTION
#28	2769	2779	10'	SS & SLTST Lt gy, fn-crse grnd, friable SS (75%) interbdd W/ brn, micaceous, massive to laminate sltst (25%). Dips average 25°. No flash.
#29	2779	2789	2'	SS Gy, friable, poorly sorted, med-crse grnd, perm, W/ occas pebbles (1/4"). No flash.
#30	2789	2799	10'	SLTST Dk gy, masv, micaceous, carb; W/ two 6" strks of gy, med grnd, poorly sorted, easily friable, perm SS in top 4' and several thinner strks in bottom 6'. Also some slicks in bottom 6'. No flash.
#31	2799	2804	5'	GY SS Fn grnd, well sorted, friable, perm, grading to med grnd, fairly well sorted, W/ 6" of above sltst near top of core. No flash.
#32	2804	2810	6'	GY SS Lt gy, crse to med grnd, friable, perm, clean, masv, fairly well sorted, sub-angular. Upper and lower 2' are crse and contain sub-angular silicic pebbles up to pea size; occas macro-fossils. No sltst in entire core. No flash; no odor.
#33	2810	2814	0'8"	GNEISS Several frags and one 6" core of graniteid gneiss boulder. (Apparently in crse congl).
#34	2814	2819	3'	SS Lt gy, med grnd, firm, well sorted, clean & perm, W/ 3" strk of sltst at 1' from top.
#35	2819	2829	2'	SS As above but becomes crse, pebbly and poorly sorted in bottom 1'. W/ frags of SS shell at bottom.
#36	2829	2839	10' 2'6"	SLTST & GY SS Closely interbdd as above. Sltst is occas v. sandy and micaceous; friable. W/ dips of 32° common. A 6" strk of SS at 6" from top of core is v. crse grnd & poorly sorted.
		1'6"	GY SS Med gy, fn grnd to silty, soft & friable.	
		3'	SLTST As above, W/ bottom 1' v. sandy, & W/ num thin strks & lenses of silty, med gy SS.	
		3'	SLTST & SS Closely interbdd in 3"-8" strks. SS is med-fn grnd to silty, as above, and W/ 2" slightly oil stnd at approx 7'6" from top of core. Has sour odor but gives a dk amber cut; showed a good spot of free oil when core was pushed from barrel. Fair gas flash at top of barrel.	

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	FROM	TO	RECOVERY		DESCRIPTION
#37	2839	2849	10'	7'6"	SS Med gy, fn grnd to silty, soft & friable, clean, well sorted, perm, but W/ btm 6" crse grnd & poorly sorted, containing shell frags, and W/ occas 1"-3" strks of sltst thru-out. One v. carb & micaceous strk at 3' from top gives good dip of 32°.
			2'6"	SLTST	Olive-drab, massive, as above.
#38	2849	2859	10'	SLTST	As above, W/ occas interbdd strks of silty gy SS. Gas flash at top of barrel. Dip 31°.
#39	2859	2869	12'	SLTST	As above, W/ strks & spots of fn gy sand. No dip.
#40	2869	2879	7'	SLTST	As above.
#41	2879	2889	10'	SLTST	As above.
#42	2889	2899	11'	SLTST	As above. 5 sec gas flash.
#43	2899	2909	9'6"	0'6"	SLTST As above.
			1'	SS	Gy, masv, soft, perm, W/strks of sltst. Crushed in coring.
			0'6"	SLTST	As above.
			0'10"	SLTST	
			-	SHELL	Masv, v. hd.
			6'8"	SLTST &	
				GY SS	Interbdd in 1" to 4" beds. SS is lt gy, well sorted, fn, soft, crushed in coring, perm (33%). Sltst as above (66%). No flash; no show.
#44	2909	2919	10'	SLTST &	
				GY SS	Sltst as above (70%) in 4"-8" beds, interbdd W/ gy, soft, fn grnd, crushed SS (30%) in 1"-4" beds. 5-inch gas flash (2 seconds).
#45	2919	2929	8'6"	0'6"	GY SS Masv, fn grnd, well sorted, perm, crushed in coring.
			1'	SLTST	
				SHELL	Lt gy, masv, v. hd, in 1"-2" biscuits.
			0'10"	GY SS	As above.
			3'4"	GY SS &	
				SLTST	As above, interbdd in 1"-4" beds (50/50). As above, W/ 2" SS strks in middle & at btm. 1-inch flash (1/2 sec); no odor.
#46	2929	2939	10'	GY SS &	
				SLTST	Interbdd in 1"-2" beds. Poor 20° dip near bottom. No flash.

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	FROM	TO	RECOVERY	DESCRIPTION
#47	2939	2949	10'	SLTST As above but broken into 1"-2" biscuits. Minor amount of gy sdy strks in bottom 5'. Good dip of 33°. 1"-flash (1/4 sec).
#48	2949	2959	10'	SLTST As above, but broken & fractd in coring; intermixed W/ rotary mud. Has minor amount of lt gy silty-to-fine-grnd sandy lenses or strks thruout.
#49	2959	2968	9'	SLTST As above but clean and not broken or intermixed W/ mud; W/ a few minute lt gy sandy lenses. Fair dip of 25° on silty sand parting.
#50	2968	2981	10'	SLTST As above but mashed & broken in coring; mixed W/ mud. Minor amount of irreg strks & lenses of lt gy silty SS.
#51	3006	3016	10'	SLTST Dk olive gn, firm, masv, micaceous; W/ sev 1" strks of fn grnd, silty, gy SS. 2"-strk of sltst shell at top of core. No flash.
#52	3037	3045	1'	SLTST SHELL Lime-cmtd, hd, dense.
#53	3045	3053	10'	SLTST Dk gy, W/ few spots of lt gy sd. No dip; no flash.
#54	3053	3063	11'	SLTST Dk brn, masv, W/ few spots of gy sd. 20-sec gas flash. No dip.
#55	3063	3073	10'	SLTST Brn, masv, firm, W/ spots of lt gy sd. Some parting, but no dip. One-second flash; no cut.
#56	3073	3083	2'	SLTST As above. No flash.
#57	3083	3093	0'3"	SLTST Crushed. No flash.
#58	3093	3103	0'6"	SLTST Crushed; intermixed W/ drl mud. No flash.
#59	3103	3111	12'6"	SLTST & DRLG MUD As above, in 1" biscuits. Small flame in barrel. (Picked up 4'6" of above core).
#60	3111	3121	11'	SLTST Intermixed W/ drlg mud; as above.
#61	3121	3132	10'	SLTST Dk gy, firm, micaceous, masv to irreg bdd W/ strks of gy sd & brn organic material.
#62	3132	3142	10'	SLTST As above.

SEP 11 1948

LOS ANGELES, CALIF. TA

	FROM	TO	RECOVERY		DESCRIPTION
#63	3142	3152	9'	4'	SLTST Dk brn, firm, micaceous, masv to irreg bdd W/ thin strks of gy sd.
				5'	SS Med gy, soft to friable, fn grnd, silty, perm, no flash.
#64	3152	3162	6'		SLTST Dk brn, firm, masv, micaceous; W/ high angle fract's in top 1' of core.
#65	3162	3170	0'2"		SLTST As above.
#66	3170	3180	0'6"		SLTST & GY SD As above. (Barrel did not seat; core probably not from bottom of hole).
#67	3180	3190	5'		SLTST As above but partly mixed W/ muc, and W/ 3" SS, gy, fn grnd, perm, crushed, near bottom. Core shot from barrel while pumping; mixed. No flash; SS has strong sour gassy odor.
#68	3190	3198	2'6"		DRLG Mixed W/ minor amount of crushed, fn grnd MUD SS & sltst. No flash.
#69	3198	3208	4'		SLTST Crushed & mixed W/ mud in coring; rare strks of lt gy, fn grnd, crushed SS. No flash.
#70	3208	3218	4'		SLTST Brn-gy, masv, easily friable; interbdd W/ 1" to 2" strks of gy SS. Crushed in coring. No flash; no odor.
#71	3218	3228	6'		SS Gy, masv, fn grnd, well sorted; crushed & mixed W/ mud. W/ common 1"-2" strks of above sltst. No CSO. Questionable 5° dip near bottom-may be due to packing in bbl.
#72	3228	3238	5'	4'	SS Dk gy, masv, soft, fn grnd, perm; W/ sev 1" strks of badly broken & fractd sltst.
				1'	SLTST Dk gy, firm, micaceous, masv to fairly well bdd W/ strks of gy SS & brn organic material. Fair 20° dip.
#73	3238	3248	7'		SLTST & GY SS Approx 50/50. Sltst is med gy-brn, masv as above. SS is lt gy, med-fn grnd, friable. No cut or odor; gas flash. Fair dips of 13° on sltst-sandstone contact.

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	FROM	TO	RECOVERY	DESCRIPTION
			LOS ANGELES, CALIF.	
#74	3248	3258	8' 3'	SLTST Gy-brn to mouse-gy, interbdd W/ dk brn platy shale; mcf. Excellent dips of 15°.
			5'	SS Lt gy, med grnd, friable, clean, perm, well sorted, W/ interbdd mouse-gy sltst & W/occas platy brn shale strks (SS predominant). Has slight oil staining at 1' from bottom; strong oil odor, straw colored cut, even stng, and W/ good gas flash at bottom.
#75	3258	3268	8'	SLTST Cuttings of above sltst intermixed W/rotary mud, and W/ spots of gy SS. Entire core badly chewed up.
#76	3268	3278	4'6"	SLTST W/ interbdd strks of platy brn shale. Excellent dips of 14-16°. Bottom 2' of core badly chewed up. Gas flash at bottom.
#77	3278	3287	0'3"	SLTST As above. No flash.
#78	3287	3292	3'	SLTST As above; badly chewed in coring. No flash.
#79	3292	3302	6'	SLTST Dk gy, firm, masv, W/ strks & pockets of gy sd. Core badly mudshot. W/ 6" sltst shell at 1' from top.
#80	3302	3312	6'	SLTST Dk gy, firm, W/ occas thin banding of dk brn organic shale. Dip 0-10°. Most of core is badly mudshot.
#81	3312	3322	5'	SLTST Lt brn, firm, v. mic, masv, v. sandy in parts; badly broken & mudshot in coring.
#82	3322	3332	7'	SLTST & DRLG MUD (Predominantly mud). Where formation is found, it appears to be lt brn, firm, masv.
#83	3332	3342	6'	SLTST As above.
#84	3342	3352	8'	SLTST Dk gy, firm, v. micaceous; irreg bdd W/thin stks of sd & brn organic shale. Most of core badly mixed W/ drlg mud.
#85	3352	3364	1'6"	SLTST Brn, masv, W/ spots of fn gy sd; mixed W/ mud.
#86	3364	3366	2' 1' 1'	SLTST Brn, masv, micaceous. SS Gy, med grnd, masv. No dip.

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
			LOS ANGELES, CALIF.	
#87	3366	3376	9'	SS Med gy, masv, med grnd, W/ some 1"-5" layers of brn masv siltst. Oil stains in sand, giving lt amber cut (aggreg 1' oil sand). Sand 90%, siltst 10%.
#88	3376	3381	5'	SS Gy, fn grnd, masv, W/ strks of brn siltst, W/ 1' hd SS Shell near top. SS 90%, siltst 10%.
#89	3381	3391	10'	SLTST Dk gy, firm, masv, W/ occas thin strks of gy SS. All or core mixed W/ mud.
#90	3391	3401	10'	SLTST & OSS Siltst is dk gy, masv, firm, W/ pockets of gy sd, interbdd W/ several 1" strks of oil std sd; gy to unevenly & spottily stnd, soft, fn grnd, perm. W/ distillate odor & amber cut; instant flash. Aggreg sand 1'.
#91	3401	3411	9'	0'6" SS Dk gy, soft, fn grnd. 0'2" OSS Dk brn stnd, soft, med grnd, perm, W/ distillate odor & dk amber cut. 8'4" SS Grading from gy to spottily & unevenly stnd, soft, fn to med grnd, perm. W/ several 1" strks of siltst interbdd. No flash.
#92	3411	3421	7'	1' SS SHELL 6' SS Dk gy, masv, soft, fn grnd, perm; W/ two 1" strks of dk gy, firm, masv siltst W/ 6" oil std sand at bottom of core; lt brn, unevenly stnd, soft, med grnd, perm. Amber cut; distillate odor. No flash.
#93	3421	3431	9'	SS Dk gy, masv, soft, fn to med grnd, perm, W/ occas lt brn spotty stng. Lt to dk amber cut, gasoline odor. No flash. Two 1" strks siltst interbdd. No dip.
#94	3431	3441	6'	SS Lt gy to med brn, med grnd to crse pebbly at bottom, soft, friable, clean, permeable; lightly oil stnd in strks (aggreg approx 2').
#95	3441	3452	8'	SS Lt gy, masv, soft, crse grnd, occas pebbly.
#96	3470	3480	10'	SS Lt gy, med-fn grnd, well sorted, clean, friable, permeable; no cuts. W/ occas 2"-4" strks of platy brn shale, aggreg 10% of core. Gives good dips of 15 to 17°. W/ 6" strk of hd, well cmtd SS (Shell) at 2' from bottom. (While opening top of barrel, gas escaped around the thrds; could be lighted with a match).

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FROM TO RECOVERY

LOS ANGELES, CALIF. DESCRIPTION

	FROM	TO	RECOVERY	DESCRIPTION
#97	3480	3489	8'	SLTST Dk gy-brn, fn grnd, micaceous, occas v. sdy, dense, masv; W/occas bands of dk brn platy shale; good dips of 18°. W/ num strks of lt to dk gy, micaceous, silty SS (4"-6"), well bedded in thin dk & lt gy strks. Good dips average 18°. No cuts. Sltst predominant- approx 70% of core.
#98	3489	3494	5'	SS Gy, fn grnd, friable, masv; W/ 8" brn masv sltst and W/ 1' hd, fn grnd gy SS shell. Aggreg sand 80%.
#99	3494	3504	8'	SS Lt gy, masv, fn grnd, friable, W/scattered frags of brn sltst, and W/aggreg of 1'6" oil stnd sand. Deep amber cut. W/ 6" hd SS shell. No dip.
#100	3504	3514	10'	SS Gy-brn, masv, friable, fn grnd, W/ strks of brn sltst and W/ 1' gy, fn grnd SS shell. Aggreg sand 90%, W/ approx 6' oil stnd. Lt to dk amber cuts, instant flash. Some of sltst is badly fractd.
#101	3514	3525	8'	SS Lt gy, masv, friable, fn grnd, W/ strks of brn, sltst (75% SS, 25% sltst). Oil sand in strks aggreg 3'; amber cut.
#102	3525	3535	10'	SLTST & GY SS (90/10). Sltst is dk brn, firm, masv to well bdd W/ lt gy, soft, easily friable, fn grnd SS as thin interbeds. No CSO. Good dips average 15°.
#103	3535	3545	10'	SLTST & SS SHELL Sltst (80%) as above; gy SS (10%) as above; SS Shell (10%) is lt gy, hd, fn grnd, cmtd, in 1' bed at 2' from top of core. Good dips of 15°.
#104	3545	3555	10'	SLTST & GY SS Dk brn, fn grnd, masv sltst (90%), interbdd W/ lt gy, soft, easily friable, fn grnd, silty SS (10%). One 43° fract at 1'6" from top. 2-second gas flash at bottom of barrel.
#105	3555	3565	10'	SLTST & GY SS Interbdd. Sltst is masv, W/ irreg strks of fn grnd SS common, interbdd in 2"-6" beds thruout, W/ SS, gy, v. fn grnd, silty, in 1"-6" beds thruout, W/ 1" to 2" intervals of silty SS, v. well bdd & banded by dk brn (1/8") silt laminae. Dips vary; average 22-23° (good). 1/2-second, 4" flash. No cut or odor.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#106	3565	3575	10' 6'	SLTST As core 3565-3565', W/ 1' aggreg oil sand interbdd, W/ 6" OS in top of interval and 6" OS in bottom. Oil sand is lt brn, masv, v. fn grnd, lt to dk brn cuts, distinct gasoline odor when fresh; soft, perm. 1' SS SHELL V. hd. 3' OIL STD SS, SLTST & SLTY SS Oil std SS interbdd (50%) W/ well bdd & banded sltst & silty SS, W/ 2" strk gy SS between sltst at top. OS is fn grnd, soft, perm, as above; free brn oil between crushed biscuits of OS at bottom of core. No flash (strong wind). Aggreg OS in core, 3', in 2"-3" beds.
#107	3575	3585	10'	SILTY SHALE GY SS & OS Sltst & strks of platy shale, as above, interbdd as follows W/ 5" oil std SS at 7" from top, med brn, masv, fn grnd, evenly std, W/ dk brn cut; perm, soft; 3" gy SS at 3'6" from top; 3" gy SS & strks OS at 4'6" from top, banded W/ silty strks; 4" gy SS at 7' from top; 5" oil std SS interbdd in bottom 1', interbdd W/ sltst & banded silty SS. OS is med brn, W/ med strong gasoline odor when fresh, W/ dk brn cut; fn grnd, well sorted, soft, perm to moderately firm. 4"-1/4-second flash. Aggreg OS, 1'.
#108	3585	3595	9'4" 1'10" 7'6"	SLTST V. hd, banded. SLTST As above (aggreg 3') interbdd W/ OS, med brn, masv, fn to med grnd, soft to easily friable, perm, W/ dk brn cuts & med gasoline odor when fresh (aggreg OS 4'6"). Good 18° dip.
#109	3595	3606	9'	OIL STD SS & SLTST Oil std sandstone is fn-med grnd, masv (aggreg 5'), W/ straw yellow cut. Sltst, brn, masv, W/ thin strks of oil sand (aggreg 4').
#110	3606	3616	8'6"	SLTST & OS Brn sltst W/ few spots oil sand and 1' solid oil sd. Petroleum odor, lt straw yellow cut.
#111	3616	3626	10'	SLTST Dk brn, hd, W/ few thin strks sand. Petroleum odor; oil stns.

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SEP 11 1948

	FROM	TO	RECOVERY		DESCRIPTION
#112	3626	3636	10'	9' 1'	UC SLTST Dr gy , firm, masv, micaceous, W/ thin irreg strks & pockets of gy SS; some fractg. OS Lt brn, evenly stnd, soft, fn grnd, silty, perm. W/ kerosene odor & lt amber cut. No flash.
#113	3636	3646	10'		SLTST & OSS Sltst (92%) is dk gy, as above, interbdd W/ thin strks of above <u>oil stnd SS</u> aggreg 1'.
#114	3646	3656	10'		SLTST & OSS Sltst (92%) as above, W/ occas thin strks of oil stnd SS as above. Straw cut; instant flash. W/ one 2" strk sltst shell at 2'6" from top.
#115	3656	3666	10'		SLTST, SS & SHALE Sltst (95%) is dk brn, firm, generally masv, W/ some irreg to regular strks of gy SS & brn shale. W/ two 1" strks of <u>oil stnd SS</u> , as above, and W/ 4" sltst shell at 4' from bottom of core. Dips 14° to 16°. Top 1'6" is badly broken & fractd. Instant flash.
#116	3666	3677	10'		SLTST As just above.
#117	3677	3688	10'		SLTST, OSS & GY SS Sltst (90%) is dk choc brn, xbdd, v. firm. <u>Oil stnd SS (8%)</u> is brn, thinly bdd (up to 2" thick), interbdd W/ sltst. Easily friable, fn grnd, W/ good odor & amber cut. Gy SS (2%) is lt gy, poorly bdd; occurs as thin pockets in sltst; fn grnd, silty. No CSO. Aggreg <u>oil stnd SS</u> , 8-10". Dips vary from 14° to 20°.
#118	3688	3698	1'		SLTST & OSS Sltst (99%) as above, W/ less than 1/10" of <u>oil stnd SS</u> as above. Lt straw cut. Core badly fractd & slicked.
#119	3698	3708	10'		SLTST & SS Sltst (85%) is dk gy-brn, masv as above, W/ occas dk brn bands indicating good dips of 17°. W/ num thin strks (1-6") of silty, soft, occas well bdd SS which is variably <u>oil stnd v. lt to med brn</u> and gradational W/ gy SS. Cuts also vary from pale straw to amber, and W/ few strks entirely gy. Good gas flash at top of bbl. Aggreg SS approx 15%.

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
			LOS ANGELES, CALIF. 7A	
#120	3708	3718	9'	1' SLTST As above. 1' SS Lt gy to med brn, fn grnd, soft, friable, clean, well sorted, spottily <u>oil stnd</u> . Gy predominant in upper part. 5' SLTST As above, W/ interbdd strks (2"-6") of med gy and <u>oil stnd SS</u> (looks weak). 1' SS Gy and strks W/ oil stng, fn grnd, friable. Oil stng is lt brn; looks weak. 1' SLTST W/ 2" strk of lt gy, silty SS in middle, and W/ 2" lt brn oil stnd SS at bottom. Weak gas flash.
#121	3718	3728	10'	SLTST & SS Sltst (70%) as above, W/ occas 1"-8" strks of lt gy and lt brn oil stnd sandstone thru-out. SS is fn grnd to silty, soft & friable. <u>Oil stng</u> looks weak, W/ gy spots & strks thru it. Amber cuts; weak gas flash.
#122	3728	3738	10'	SS & SLTST SS (80%) is predominantly gy, W/ some uneven to <u>spotty stng</u> , grading to all gy at bottom of core; masv, soft, fn grnd, perm, W/ kerosene odor & lt amber cut. Sltst (20%) is dk gy, masv, firm, micaceous.
#123	3738	3749	9'	SLTST & SS (50/50). Sltst as above; SS is lt gy, masv, soft, perm, fn grnd. No flash.
#124	3749	3758	7'6"	GY SS & SLTST (50/50). Interbdd as above.
#125	3758	3763	7'	SLTST Dk gy, masv, firm, micaceous, W/ pockets & strks of gy SS. No flash.
#126	3763	3773	10'	SLTST Dk gy, generally masv, firm, micaceous, W/ occas thin strks of dk brn shale. Dip 20°± 1".
#127	3773	3780	7'	SLTST Dk gy, masv, firm, micaceous, W/ lenses & pockets of gy SS. W/ three 1/2" strks of weak <u>oil stnd SS</u> . Pale cut; no flash.
#128	3780	3790	10' 5'	SLTST Dk gy, micaceous, W/ irreg stringers of brn organic shale & gy SS pockets. 5' SHALE Brn, organic, banded W/ above sltst in 1/2" to 3" beds. W/ reg dip of 11°. Puff flash. Some slicks in bottom 3'.

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#129	3790	3800	10'	<p>LC3 ANCHERS CALIFORNIA</p> <p>SHALE, Brn organic shale (80%), W/ num irreg stringers & pockets of gy sltst (10%) and thin (1/2"-1") strks of faintly stnd SS (10%). 2' slicked at top. Puff flash; amber cuts. 12° dip.</p>
#130	3800	3810	10'	<p>SHALE Organic shale and gy, faintly stnd SS (90/10) as directly above. Puff flash.</p>
#131	3810	3820	10'	<p>SHALE Brn organic shale & gy faintly stnd SS, interbdd 50/50, as above. 12° dip. Trace of color in cut; puff flash.</p>
#132	3820	3830	6' 1'6" 4'6"	<p>SS SHELL Lt gy, masv, fn grnd, W/ calcite cmt. GY SS & SLTST Interbdd (50/50). SS in gy, <u>lightly stnd</u> as above. Sltst is dk brn, firm.</p>
#133	3830	3840	8'	<p>SLTST & GY SS (65/35) Sltst as above, W/ occas dk brn organic shale bands. Gy SS as above, W/ occas oil stns near btm. Dk amber cut; 10-sec flash. 8° dip.</p>
#134	3840	3850	7'	<p>SLTST & GY SS (75/25) interbdd. Sltst is dk brn, masv to well bdd, firm, w/ occas dk brn organic shale bands. Slicks on bddg planes. SS is gy to <u>lightly oil stnd, spotty</u>, fn grnd, easily friable, W/ occas thin strks of cmtd SS Shell. Good 10° dip. 3-sec flash.</p>
#135	3850	3860	10'	<p>SLTST & GY SS Interbdd (60/40). Sltst as above, W/ abund dk brn organic shale laminae, W/ 8° dip. SS as above, W/ occas <u>spotty oil stns</u>. Dk amber cut. 5-sec flash.</p>
#136	3860	3870	8'	<p>SLTST & GY SS Interbdd (60/40) as directly above. <u>Spotty oil stns</u> in sand. Lt amber cut. 10-sec flash. Dips 8-12°.</p>
#137	3870	3880	10' 7'6"	<p>SLTST & GY SS Interbdd (75/25). Sltst is dk brn to gy, well bdd W/ shaley partings of dk brn organic laminae; firm to densely cmtd W/ calcite. SS is lt gy, well bdd, easily friable, fn grnd, silty, W/ oil stns thruout. Straw cuts. Occas thin SS Shell. (Continued)</p>

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#137	3870	3880	(Cont) 1'	OIL SS Lt brn, masv, easily friable, <u>evenly stnd.</u> W/ dk brn cut.
			1'6"	SLTST & (50/50). Sltst as above. GY SS Gy SS as above, W/ <u>spotty light oil stns</u> thruout. 5-sec flash. Dip 9°.
#138	3880	3890	10'	SLTST & GY SS (60/40). Sltst is dk gy, firm, masv to well banded W/ 1/4" to 1/2" strks of dk brn shale Good dip of 9°. Interbdd W/ 1" to 4" strks of dk gy, masv, soft, fn grnd, perm SS, W/ some v. wk stng & weak odor. Straw cut; no flash.
#139	3890	3900	10'	SLTST & GY SS (90/10) interbdd as just above.
#140	3900	3911	10'	SLTST & GY SS (90/10) interbdd in 1" to 2" strks. Sltst is dk gy, firm, masv, micaceous, W/ occas thin strks of dk brn shale. Dip 12°. SS is dk gy, masv, soft, fn grnd, perm. Instant flash.
#141	3911	3921	10'	1' SS Lt gy, masv, firm, friable, fn grnd. 1' SLTST SHELL 2' SS Dk gy, masv, soft, fn grnd. 6' SLTST & GY SS Interbdd. Sltst is dk gy, masv, firm, mi- caceous. SS in 1/2" to 1" strks as above. Aggreg sltst, 5'6"; gy SS, 0'6".
#142	3921	3930	10'	SLTST Dk gy, firm, masv to some good bddg of brn shale & bottom of core. Good dip of 13°. 4-second flash.
#143	3930	3940	10'	SLTST W/ sev thin strks of <u>oil stnd sand</u> at btm. Sltst is dk gy, firm, micaceous, masv, W/ some irreg strks of dk brn shale. <u>Oil stnd SS</u> is lt brn, evenly stnd, well cmt'd, fn grnd, perm, W/ gasoline odor & amber cut. Puff flash.
#144	3940	3944	0'6"	SLTST Dk gy, firm, masv, broken & chewed in cor- ing.
#145	3944	3949	5'	SLTST Dk brn to gy, masv to xbdd, firm to v. hd, W/ calcite cmt. Lt distillate odor in sdy portion of sltst. No good SS.

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SEP 11 1948

	FROM	TO	RECOVERED	DESCRIPTION
#146	3949	3959	10'	SLTST As above, W/ 20% interbdd spotty oil stnd gy SS, in strks 2"-3" thick. Dk amber cut to no cut. Kerosene odor. One 30°-fract.
#147	3959	3969	10'	SLTST & SS (50/50) interbdd. SS is lt gy to brn, poorly bdd, soft, easily friable W/ <u>spotty oil</u> stns thruout. No cut to amber cut. Slst is dk brn, masv, firm as above, xbbd. No good dips. Num slicks at all angles. Instant flash.
#148	3969	3979	10'	GY SS & SHALE (80/20). SS is gy, med-fn grnd, well to fairly well sorted, friable to easily friable, W/ thin strks (1"-4") of organic shale thruout, and two 4" beds of SS Shell in bottom 3'. Puff flash; no cut.
#149	3979	3989	10'	SS & SHALE (60/40) interbdd. Shale in beds ranging from 1/8" to 2" in thickness. SS is lt gy to faintly stnd, med grnd, poorly sorted, friable. No cut to straw color. Shale is dk brn, organic. Poor but fairly consistent dip of 11-15°. Puff flash.
#150	3989	3999	9'	GYSS Lt gy to faintly stnd, fn grnd, poorly sorted, friable, interbdd thruout W/ thin (1/4"-2") strks of sltst & brn shale (aggreg 20%). No cut to amber cut. Fairly consistent 3°-5° dip on shale banding. Puff flash.
#151	3999	4009	10'	SS & SHALE (50/50) interbdd as directly above. No cut to straw color. 5-7° dip on shale banding.
#152	4009	4020	9'	SLTST & SS (60/40) closely interbdd in 3"-8" strks. Slst is mainly gy, but a 3" strk at 1" from top is med brn and gives a dk amber cut, & 6" strk at 6' from top is fairly evenly oil stnd although has grayish cast. Gives <u>amber cut</u> . 3" strk at bottom is med brn oil stnd and gives amber cut. Oil shows <u>look weak</u> . No gas flash at top of barrel, and only a sudden puff at bottom of barrel. 3" sltst strk at 1' from top of core offers a good 28° dip on dk bands; W/ slicks on bddg plane.

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#153	4020	4030	10'	1'6" OS W/few thin 1"-2" strks of sltst interbdd. Aggreg approx 1' of oil sand. Sand looks much better than strks in the core just above; is med brn in color, med-fn grnd, soft, & friable, W/ <u>free oil</u> oozing out from sand. Looks alive; gives a dk amber cut and has a strong distillate odor.
			1'	SLTST W/ 2" strk of gy-brn, <u>slightly oil stnd</u> SS in middle.
			1'	OS Gy-brn, med-fn grnd, soft & friable; has gy-ish look. Although evenly stnd, not as well saturated as oil sd above; has strong distillate odor; gives an amber cut; becomes gy at bottom 2".
			3'6"	OIL SD & SLTST (60/40) closely interbdd in 2"-8" strks. A 6" strk of <u>oil sd</u> at 4-1/2" from top of core shows much <u>free oil</u> and looks lively, but is gy stkd; a 4" strk of <u>oil sd</u> at 5-1/2' from top of core also is gy strkd & spotty, but strks give amber cuts and have a distillate odor.
			3'	SLTST & SS Interbdd (50/50). Sltst strks are masv, as above, W/ no dips apparent. SS strks are lt gy, fn grnd at top but strk at btm is crse grnd. No cuts; no odor. Gas flash at bottom of barrel; no flash at top.
#154	4030	4040	9'	1'6" SLTST As above, W/ 6" strk of lt gy friable SS at top.
			2'	SS Lt gy to gy-brn, med-fn grnd, firm but quite friable, <u>slightly oil stnd</u> in upper 1'. Dk amber cut at top.
			4'	SLTST & SS (50/50) closely interbdd in 2"-6" strks. SS strks are gy, med-fn grnd, firm but easily friable.
			1'6"	SS Med-brn at top, to gy at bottom. Med-fn grnd, firm but friable. Top 3" <u>slightly oil stnd</u> ; remainder gy.
#155	4040	4051	10'	2'6" SS Lt gy, med grnd, firm but easily friable, clean & permeable. No cuts or odor.
			4'6"	SLTST & SS (50/50) closely interbdd in 4"-8" strks. SS strks are mainly gy, W/ 6" strk at 3' from top well saturated and W/ <u>free oil</u> v. evident; good amber cut. Other SS strks are entirely gy. Fair dip of 18°.
			3'	SS Lt gy to med brn where <u>oil strkd</u> , med-fn grnd, firm but easily friable, occas quite silty; <u>oil strkd & spotted</u> thruout the 3'.

RECORDED
SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
			U.S. ARMY, CALIFORNIA	
#156	4051	4061	10'	SS Lt gy to med brn where oil strkd, med-fn grnd to silty, firm but easily friable, W/ occas thin strks of sltst (aggreg 10% of core). Oil stng is spotty & strkd (approx 3' of SS is oil stnd out of 9' of SS).
#157	4061	4071	9'	SS Lt gy, med grnd, firm but easily friable, well sorted, clean, perm. No cuts or odor. Small gas flash at top of barrel. W/ one 2" sltst strk at 6' from top.
#158	4071	4080	10'	2'6" SS Lt gy, masv, med grnd, easily friable but firm, perm. No cut.
			3'	SILTY SS Well bdd in 1/2" beds, dk to lt gy, fn grnd, W/ occas strks brn sltst.
			3' 1"	SS As at top of core. Sour odor.
			1'6"	SLTST & SS (50/50). SS is lt gy, med grnd as at top of core, W/ brn oil stn in 1/2" near top. Lt amber cut; sour odor; v. slight flash. Sour odors thru SS. Poor 26° dip near btm.
#159	4080	4090	10'	SLTST & GY SS (70/30). Sltst is dk brn, masv to gy, sdy, interbdd in 1"-8" beds W/ fn grnd, masv, lt gy SS. No flash, cut or odor. Fair 24° dip on parting in middle. 1" SS shell at 4'6" from top.
#160	4090	4100	9'	SLTST & GY SS (67/33) as just above, W/ rare 1/8" strks of choc brn organic shale. V. good 20° dip at 2' from bottom, 3"-1/2-sec flash. No CSO.
#161	4100	4110	10'	SLTST, OS & SS Sltst (80%) is dk brn, masv, v. firm to hd, interbdd in 1"-5" beds, W/ occas 1"-2" strks of oil sd (10%). Faint petroleum odor, amber cuts. Oil sd is fn grnd, soft, friable. W/ 1"-2" strks of gy SS as OS litho-logy in middle of core. No cut. 3-sec, 5" flash. Dip irreg. W/ 6" SS shell near top.
#162	4110	4120	10'	SLTST & SS Sltst (75%), brn, masv, W/ scattered strks (3" or less) of gy SS (15%) and oil stnd sand (5%). W/ 1 strk of hd SS shell at 1' from top. Amber cut in sand; 3-sec flash.

SEP 11 1948

LOS ANGELES, CALIF.

	FROM	TO	RECOVERY		DESCRIPTION	
#163	4120	4130	5'	4'	SS	Lt gy, masv, fn grnd, silty, easily friable, W/ occas 1"-2" strks of above sltst. No CSO. Badly balled in drlg.
				1'	SS SHELL	Lt gy, fn grnd, calcite cmtd.
#164	4130	4140	9'		SLTST & SS	(75/25). Sltst is brn to dk gy, W/strks of oil stnd SS (aggreg 4") and gy SS. Amber cut; instant flash.
#165	4140	4150	9'6"		SLTST & SS	(70/30). Sltst is brn, W/ dk brn carb strks SS is gy, fn-med grnd, W/ carb strks. Good 25° dip. 6" sltst shell near middle of core.
#166	4150	4160	9'6"	1'- 8'6"	SLTST GY SS	Dk brn, masv, firm. Lt gy, masv, easily friable, W/ sev 2"-4" strks of above sltst and W/ 4" silty SS Shell at 1' from bottom. SS shows lt brn oil stn & amber cut in 2" strk at 3' from top of core. Instant gas flash. Good 17° dip.
#167	4160	4169	10'	1'6"	SS	Lt gy to brn, masv, fn grnd, silty, easily friable, W/ spotty oil stns thruout.
				1'	OIL SS	Lt brn, masv, soft, med grnd, well sorted, W/ amber cut and distillate odor.
				2'	SS	Silty, spotty <u>oil stnd</u> as at top of core.
				1'	SS	
					SHELL	Lt gy, calcite cmtd.
				0'6"	OIL SS	As above.
				1'	SLTST	As above.
				3'	GY SS & SLTST	(70/30). SS is lt gy, masv, soft, med grnd. No CSO except for <u>spotty stng</u> in 3" strk at 6" from bottom. Sltst as above. Fair dip of 25°. 5-sec gas flash.
#168	4169	4179	9'		SS	Lt gy to brn, spotty oil stnd, masv, easily friable, fn to med grnd, W/ occas strks (1"-3") of above sltst. Cuts range from dk amber to none.
#169	4179	4189	8'6"		SS & SLTST	(70/30) interbdd. SS is gy as above in top 7', W/ lt <u>spotty oil stns</u> in lower 1-1/2'. Amber cuts; no flash. Good 23° dip on dk brn organic shale bands.

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	FROM	TO	RECOVERY	DESCRIPTION
LC JANELLE, CALIF. 1A				
#170	4192	4199	7' 3'	SLTST Dk brn, masv, firm, W/ occas strks of oil stnd SS.
			2'	SLTST (50/50) interbdd. Slstst is dk brn, well bdd, W/ shaly partings. SS is lt gy to brn, well bdd, silty, fn grnd to med grnd, oil stnd, where perm. Aggreg OS 3".
			1'	SHELL Alternating interbdd sltst & SS, well bdd, calcite cmtd.
			1'	OIL SS Brn, masv, easily friable, med grnd, well sorted, perm, W/ amber cut & distillate odor. (Appears gray-spotted under ultra-violet light). Good 20° dips.
#171	4199	4210	10' 1'6"	SS Lt gy to brn, masv, med to fn grnd, silty, lightly oil stnd thruout (shows under ultra-violet light).
			1'	SS Lt gy, masv, crse-med grnd, appears perm, (light test, negative).
			2'6"	OIL SS Lt brn, masv, crse-med grnd, easily friable, evenly stnd, appears wet. W/ straw cut. (Light test shows gy strks).
			5'	SS Lt gy, masv, friable, silty to med grnd, lightly oil stnd (light test shows 1" strk in bottom 1').
#172	4210	4217	5'6" 2'	SS Gy, masv, easily friable, oil stnd, W/ lt straw cut (shows even stng under light).
			1'	SS Gy, masv, easily friable, silty (shows neg. under light).
			1'6"	SS Gy, masv, easily friable, unevenly oil stnd
			1'	SLTST (50/50). Slstst is brn, masv, firm, hd, interbdd W/ 1"-3" strks of oil SS; gy, masv, friable, fn grnd. (Aggreg oil SS, 3'.) No dip; straw cut.
#173	4217	4224	6' 1'6"	OIL SS Gy to lt brn, masv, easily friable, fn-crse grnd, W/ silty matrix, poorly sorted (lt shows even stng in upper portion, grading to no stng below).
			1'	SS Gy, masv, easily friable, fn-crse grnd, poorly sorted (shows negative under light).
			1'6"	OIL SS As above; very lightly stnd.
			2'	SS Gy, W/ lt brn stng, fn grnd, interbdd W/ firm brn sltst, and W/ occas strks of carb sltst in bands 1/8"-1" in thickness. Good dips average 24°. Amber cuts in oil SS.
#174	4224	4234	8'	SS & (50/50). SS is lt brn, masv, friable, fn grnd, oil stnd thruout, interbdd W/ firm brn sltst in 1/4" to 6" beds. Strong distillate odor & amber cuts. Poor 20-30° dips. (SS appears evenly stnd under light).

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SEP 11 1948
LOS ANGELES, CALIFORNIA

	FROM	TO	RECOVERY		DESCRIPTION
#175	4234	4244	10'	2'6"	SS & (60/40). SS is lt brn, friable, oil stnd, interbdd w/ brn sltst in 1/4"-4" bands.
				0'6"	SHELL SS, gy, hd, fn grnd.
				1'	SLTST Brn, masv, firm, slicked.
				5'	SS & (50/50) interbdd in 1/8" to 6" layers. SS is oil stnd, W/ straw cuts to amber cuts. Distillate odor. Partings variable; no dips. (light tests negative in silty SS).
					SLTST
#176	4244	4254	7'6"	1'	SS Lt brn, masv, friable, oil stnd (light test gives strong glow; even saturation).
				5'6"	SLTST Brn, firm, W/ 1/4"-2" partings of oil SS at 1"-6" intervals (shows even glow under lt).
				0'6"	SHELL SS, gy, banded, hd, med grnd, W/ 21° dip.
				0'6"	SLTST W/ ss partings, as above. Aggreg oil SS, 2'. W/ distillate odor, straw to amber cuts.
#177	4254	4264	10'		SLTST (90/10). Sltst is brn, masv, firm, W/ 1/2"-4" partings of lt brn-gy, friable SS at 1"-1' intervals. Aggreg Oil SS strks amount to 1' of core. SS strks are very silty. Good 24° dip. Straw cuts in oil SS. (SS strks give even glow under light). Strong oil odor.
					& SS
#178	4264	4274	3'6"	0'6"	SS SHELL
				3'	SLTST Interbdd w/ sev 1" strks of oil stnd SS. Sltst (90%) is dk gy, firm, micaceous, W/ occ thin bands of dk brn shale. Dip 16°. SS (10%) is lt brn, unevenly stnd, soft, fn grnd, silty, appears perm, W/ fair odor & amber cut. (Shows v. weak glow under light).
#179	4274	4284	10'	1'	SS Lt gy, masv, soft, fn grnd, appears perm.
				2'	SLTST Dk gy, firm, well bdd W/ thin strks of brn shale. Dip 26°.
				1'	SS Gy, as above.
				3'	SLTST As above, W/ several minor strks of gy SS and two 1" strks of dk brn stnd SS; soft, fn grnd, well saturated. W/ kerosene odor & dk cut.
				3'	SS Gy, as above.
#180	4284	4294	9'		SS Lt gy, med-fn grnd to silty, firm but easily friable, W/ 1/4" band of lightly oil stnd SS at 4' from top and 1/2" band lightly oil stnd SS at 6' from top. Has interbdd sltst strks (1"-2" in thickness) in upper 6', and one 8" strk of sltst at 2-1/2' from bottom. Aggreg sltst, 1'6". (Light test indicated only the two thin bands of oil stnd SS mentioned above).

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SEP 11 1948
LOS ANGELES, CALIF. 7A

	FROM	TO	RECOVERY		DESCRIPTION
#181	4294	4304	9'	SLTST	Interbdd W/ 1"-5" strks of gy SS (80/20). Sltst is dk gy, hd, W/ strks of brn shale & gy SS. Good 21° dip. SS is dk gy, masv, soft, fn grnd; appears to be perm. (Light test shows one 1" strk W/ v. weak stng at 4' from top of core). No odor, straw cut. No flash.
#182	4304	4314	10'	SLTST	Dk gy-brn, hd, dense, masv, W/ irreg lenses or spots of lt gy, silty SS. Dips vary from 24-28°. W/ occas thin laminae (irreg) of lt brn oil SS (up to 1/8" in thickness) as partings in the sltst (gives a definite glow under ultra-violet light). Puff flash at bottom of barrel.
#183	4314	4324	9'	4'	SLTST As above.
				2'	SLTST (50/50) interbdd, w/ 4" gy SS at bottom. No & OSS cut or odor (negative test under light).
				2'	OIL SS Lt gy-brn, fn grnd to silty, firm but easily friable, clean, well sorted, has strong kerosene odor, gives straw cuts. Becomes weaker at bottom and grades into gy SS below.
				1'	SS Gy, fn grnd, silty, W/ no odor or cut (negative light test), W/ 4" sltst shell at bottom. (Core analysis sample of oil SS).
#184	4324	4334	9'	5'	OS Lt gy-brn, strkd & spotty appearing, fn grnd to silty, soft, easily friable, well sorted, clean, appears fairly perm. W/ strong kerosene odor & lt amber cut.
				2'	SLTST As above, W/ silty sand in center portion. Sd is med grnd, friable, W/ no cut or odor.
				2'	OS As described above, W/ two thin (2"-3") strks of sltst in center portion. Lt amber cut. Top 5' and bottom 2' (OS) glow-ed evenly under light, except for sltst strks.
#185	4334	4344	9'	6'	OS Lt gy, W/ faint brn stng, appears spotty; fn grnd, silty, firm but friable, W/ strong kerosene odor & straw cut. W/ 8" strks sltst at 4' from top. OS grades downward to purely gy sd W/ no apparent break.
				3'	SS Lt gy, no brn stng, fn grnd, silty, firm but easily friable as OS above. No cut or odor. (6' oil sd gave even yellow glow under light; bottom 3' negative).

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DESCRIPTION

	FROM	TO	RECOVERY		DESCRIPTION
#186	4344	4354	5'	4'	SS Lt gy, masv, firm, micaceous, W/ occas partings of OS. Above, but becoming dk gy & silty in bottom 4".
			1'	OS	Lt brn at top, to gy strkd at bottom; spotty. Amber cut; showings of <u>free oil</u> . Becomes entirely gy at bottom, W/ no cut, & W/ 2" strk of sltst at top of oil sand.
#187	4354	4364	10'	2'	SLTST Sdy, W/ stringers of gy silty sd.
			8'	OS	Lt brn to dk brn, evenly stnd. to spotty, firm, friable, fn grnd, well sorted, appears perm. W/ 10" sltst at 3' from bottom of core and occas thin strks just above. Good kerosene odor, no cut to amber. 20-sec flash at top of bbl.; 8-sec flash at btm. (All sand gives good glow under light, W/ exception of 10" at bottom of Tray 2).
#188	4364	4374	6'6"		SS Lt gy, masv, easily friable, fn grnd, fairly well sorted, seems perm. W/ 6" of faintly stnd sd at top of core which has lt straw cut. (6" faintly stnd sand shows faint glow under light).
#189	4374	4384	9'	3'	SS Lt gy, masv, firm but friable, fn grnd, well sorted, appears perm. No cut or odor.
			6'	SLTST	Lt gy, banded thruout W/ thin strks of brn shale. Fair dip of 15-19°. (Negative show under light).
#190	4384	4394	10'		SLTST Dk gy, masv, firm, micaceous, W/ occas partings of OS. (Oil sd shows even glow under light).
#191	4394	4404	9'	3'	SLTST As above, W/ sev minor strks of above oil sd.
			6'	OIL SS	Lt brn, evenly stnd, W/ few gy spots. Friable, fn grnd, perm. Gasoline odor, lt amber to straw cuts. (Shows very-even glow under light).
#192	4404	4414	7'	1'	OIL SS As above.
			0'6"	SLTST	As above; 16° dip.
			2'6"	OIL SS	As above.
			1'6"	OIL SS	Dk brn, evenly stnd, well saturated, hd, barely friable, med grnd, looks perm. W/ gasoline odor, straw cut.
			1'6"	OIL SS	Lt brn, evenly stnd, friable, fn grnd, appears perm. (All Oil SS shows even glow under light).

SEP 11 1948

LOS ANGELES, CALIFORNIA

	FROM	TO	RECOVERY		DESCRIPTION
#193	4414	4424	9'	1'	OIL SS Lt brn, evenly stnd, fn grnd, perm, W/ gasoline odor & amber cut. (Even glow under light).
				2'	SLTST Dk gy, firm, generally masv, W/ some strks of dk brn shale. Dip 18°.
				6'	OIL SS As just above, W/ aggreg of 6" sltst, interbdd in 1" to 2" strks. No flash.
#194	4424	4434	5'		SLTST & OIL SS (50/50) interbdd. Sltst is dk gy, firm, well bdd, W/ strks of brn shale. Dip 15°. SS is lt brn, unevenly stnd, W/ gy spots; soft, fn grnd, perm. Gasoline odor & lt amber cut. (Light shows uneven stng).
	4434	4437	3'		Corrected depth, 3' underhole.
#195	4437	4447	5'6"	1' 3'6"	SHELL SS, lt gy, med grnd, cmtd.
					SLTST Mouse gy to gy-brn, micaceous, masv, dense, W/ num thin bands or strks of dk brn organic shale; platy, badly fractd & slickd thru-out. Dips vary from 5-8° where not fractd. W/ 3" strk oil SS at top; lt gy-brn, med grnd, clean, appears perm, has grayish cast and looks weak, but shows up strong under lt (yellow-brn glow).
				1'	SS Lt gy, W/ upper portion slightly brn stnd, med grnd, fair sorting, clean, appears perm, firm but easily friable. Only upper 3" sltst oil stnd. W/ 2" SS "shell", hd, cmtd, at bottom.
#196	4447	4457	10'	1' 7'6"	SLTST Gy, masv, mic.
					SS Gy to faintly brn stnd, med-fn grnd, firm but friable, fairly well sorted, appears perm. Cuts lt amber to negative. W/ irreg bands of carb material at bottom.
				1'6"	SLTST As above. (All sand glows under light); has mild distillate odor. 10-sec flash.
#197	4457	4467	7'6"		SS Lt gy to faintly & unevenly stnd, med grnd to fn grnd, silty, friable, well sorted & clean to poorly sorted, appears perm in spots. Has four 2" strks of sltst in top 4', W/ bandings of brn shale showing good 15° dip. Cuts amber to negative; mild distillate odor; 21 sec-flash. (All sand glows under light).

SEP 11 1948

LOS ANGELES, CALIFORNIA

	FROM	TO	RECOVERY			DESCRIPTION
#198	4467	4477	10'	2'6"	SS	Dk gy, masv, friable, fn grnd, silty, W/one 2" strk v. spotty stng. Weak odor, straw cut.
			1'		SS	Gy, W/ spotty to irreg stng, med grnd, appears perm. W/ weak odor & straw cut.
			6'6"		SS	Med gy, masv, firm, friable, fn grnd, fairly well sorted, W/ fair perm. No cut. All oil stnd SS glows under light.
#199	4477	4487	9'	4'6"	SS	Lt gy, masv, firm but friable, fn grnd, clean; looks perm.
			1'6"		SS	Gy to spottily stnd, friable, fn grnd, perm. W/ weak odor & lt amber cut.
			3'		SS	Lt brn, evenly stnd, firm, friable, fn grnd, perm. W/ amber cut and gasoline odor. All oil stnd SS shows good glow under light.
#200	4487	4497	3'6"	0'3"	SS	Lt brn, evenly stnd, firm, friable, fn grnd; looks perm. W/ fair saturation, straw cut, distillate odor.
			0'9"		SHELL	SS, lt gy, fn grnd, hd, well cmtd.
			2'6"		SS	Lt brn, unevenly to spottily stnd, soft, fn grnd, somewhat silty. W/ pale straw cut, weak odor; no flash. Shows dull glow under light.
#201	4497	4507	9'		SS	Med gy, masv, soft, friable, fn grnd, silty, W/ fair perm. W/ sev 1" strks irregularly stnd; weak odor & amber cut. W/ two 1" strks dk gy, firm sltst. Dip 28°.
#202	4507	4517	9'	3'	SS	Med gy, fn grnd, silty and occas carb. soft & friable. No cut or odor. Appears to have low perm. W/ 6" SS "Shell" at top; dense, well cmtd; and W/ 3" sltst strk at center.
			4'6"		SLTST	As above, commonly fractd; W/ thin dk brn organic shale bands near top, giving excellent dip of 28°. W/ 4" strk of oil sd near center. Has strong kerosene odor and gives lt amber cut.
			1'6"		OIL SD	Gy-brn, appears v. lightly stnd, W/strks & gy spots thruout. Fn grnd, firm but easily friable, clean & well sorted, appears fairly perm; has strong kerosene odor, W/pale straw cut at top and lt amber cut at btm.
#203	4517	4527	8'	1'	SLTST	As above.
			5'		SS	Lt gy, masv, fn grnd, firm but fria. to easily fria., appears to have low perm; W/ spotty oil stns thruout. Cuts v. pale yellow to negative. Faint odor. Shows gray spots under violet light.

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#203	4517	4527	(Cont.) 3'	SLTST As above.
#204	4527	4537	9' 3'	SLTST Dk gy, masv, micaceous, W/ thin stringers (1/4"-2") <u>oil stnd</u> & gy SS; fn grnd, silty, soft.
			6'	SS Gy to unevenly stnd, masv, med-fn grnd, silty, friable, perm in part; appears wet. Gives lt straw to amber cuts. W/ three strks of sltst (2", 1" & 4") in btm. 4'. Slickd. 4" at top of Tray 3 glows under light.
#205	4537	4547	4'	SS & SLTST (80/20) interbdd as above, W/ 8" SS Shell in top 1-1/2'. Free oil in slickd sltst at top of core. No flash; cuts lt straw to negative. No glow under light.
#206	4547	4556	5' 1'6"	SS Lt gy, masv, fn grnd, fairly well sorted, friable, appears perm.
			1'	SHELL SS, Gy.
			2'6"	SS Lt gy, as above, to brn & <u>unevenly stnd</u> ; poorly sorted, silty, appears wet. Lt amber cut. 10-sec flash. (Bottom 18" shows up under light).
#207	4556	4562	3'6" 1'6"	SLTST Lt gy; chewed in coring.
			1'6"	SS Lt gy, fn grnd, friable, fairly well sorted; banded W/ sltst. No CSO; no flash. (Faint glow at top & bottom when placed under light).
			1'	SHELL Gy SS.
#208	4562	4572	9'	SS Lt gy, masv, easily friable, fn grnd to silty, W/ spotty lt <u>oil stns</u> in 2" strk at 1-1/2' from top, 6" strk at 3' from top, and in bottom 18". Pale yellow cuts at bottom only. Sands appear not too permeable. Stns appear spotty under light. W/ one 3" strk sltst at 2' from bottom, giving good 20° dip. 10-sec flash.
#209	4572	4582	5'	SS As above, W/ lt <u>oil stns</u> in 1" strks at approx 1', 2', 3', 4' from top of core, & W/ 6" fairly evenly stnd lt <u>oil sd</u> at btm. Pale amber cut in stnd portions. Appears spotty under light.
#210	4582	4592	9' 3'	SS Lt gy, masv, fn grnd, W/ lt spotty oil stns thruout. Lt yellow cut. Shows spotty gy under light.
			3'	SLTST Dk brn, masv, firm, W/ occas 1" strks <u>oil stnd</u> SS. Good 20° dip.
			3'	SS Lt gy, masv, fn grnd, micaceous, <u>oil stnd</u> . (Cont.)

RECORDED
SEP 11 1948

	FROM	TO	RECOVERY		DESCRIPTION
#210	4582	4592	(Cont)		Varies from easily friable to hd & cmtd. Good odor thruout; W/ lt amber cut. Cmtd SS bled oil, W/ small amount free oil on mud sheath. Appears potty under light.
#211	4592	4602	9'	2'	SLTST As above.
				1'	SS Lt gy, masv, soft, easily friable, fn grnd; appears to have low perm. W/ 2" oil stnd SS at bottom (glows under light).
				2'	SLTST As above, W/ occas 1" strks gy SS.
				1'	SS V. silty, as above. No CSO. No glow under light.
				1'	SLTST As above.
				2'	SHELL SS, med gy, fn grnd, calcite cmtd. Poor 20° dip on SS partings.
#212	4602	4612	8'		SS Med gy, masv, v. fn grnd, silty, easily friable, W/ occas 6"-8" sltst strks near top. Rare 1"-2" spotty oil stns (glow under light) and W/ 4" oil stnd SS at 3' from btm. Poor 27° dip. Vert fracts in btm. 1' indicate horizontal movement.
#213	4612	4622	8'	2'	SS Lt gy, fn grnd, silty, soft & friable; W/ 6" sltst strk at 6" from top. No cut or odor. Top portion appears <u>slightly stnd</u> under light.
				5'	SLTST Dk gy-brn, usually masv, W/ rare thin bands of dk brn organic shale, indicating good dips of 31°, and W/ occas thin strks (1"-2") of lt gy, silty, soft SS. No cut or odr.
				1'	OIL SS Lt gy-brn, fn grnd to silty, firm but easily friable by fingers. W/ strong kerosene odor. Appears spotty & strkd; gives good amber cut & strong glow under light. No flash.
#214	4622	4632	10'		SLTST Dk gy-brn, masv, as above, W/occas thin stks of dk brn organic shale. Core badly balled-up, W/ rotary mud shot thruout core, making it impossible to measure dip. Gas escaped while unscrewing both top and bottom connections to core barrel. Long slow-burning flash at top & bottom (est. 10 sec.).
#215	4632	4642			(Could not extract from barrel).
#216	4642	4652	7'	3'6"	SLTST As above, W/ 6" strk of lt gy silty SS, soft & friable, at 4" from top. W/ 3" SS, as above, at 1'6" from top. No cut or odor; no fluorescence.

(Cont)

RECORDED
SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#216	4642	4652 (Cont.)	1'	OIL SS Lt gy-brn, strks & spotty; looks weak. Fn grnd, soft & friable, clean, well sorted, appears perm. W/ strong kerosene odor & amber cut.
			2'6"	SHELL SS, med gy, fn grnd, dense; well cmtd.
#217	4652	4662	7'	2' SHELL SS, hd, masv.
			1'	SS Gy, masv, friable, fn grnd, fair sorting.
			1'	SLTST Brn-gy, banded, firm.
			2'6"	OIL SS Gy-brn stnd, masv, friable, fn grnd, poor sorting; W/ straw cut.
			0'6"	SS Gy, as above.
#218	4662	4672	9'	2' SS Gy, masv, friable, fn grnd, oil stnd.
			0'6"	SLTST Brn, firm, W/ thin strks of gy SS.
			1'6"	SS Gy to oil stnd, as above.
			2'	SLTST As above.
			1'	SS Gy to oil stnd as above.
			2'	SLTST & SS In alternating 8" layers. Oil stns in SS. Aggreg oil stnd SS, 3'. Amber cut.
#219	4672	4682	8'	1'6" SS Gy to oil stnd as above.
			0'6"	SLTST As above, W/ partings of fn gy SS.
			2'6"	SS Oil stnd, friable, fn grnd.
			1'	SLTST As above, W/ 2" oil SS.
			1'	SHELL SS, gy hd.
			2'	SS Interbdd W/ sltst as above. Distillate odor & amber cuts in sands. 20-sec flash.
#220	4682	4694		Not recovered.

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SEP 11 1948REDRILL

LOS ANGELES, CALIFORNIA

	<u>FROM</u>	<u>TO</u>	<u>RECOVERY</u>		<u>DESCRIPTION</u>
#1	3027	3037	5' 1'	SS	Lt gy, masv, easily friable, v. fn grnd, silty.
			1'	SS	Lt gy, masv, easily friable, crse to med grnd, fairly well sorted, appears perm.
			3'	SLTST	Dk brn, masv, firm & tough, occas cmtd; numerous slicks & fract. No flash, 0° dip.
#2	3037	3047	10' 6"	SLTST	Dk brn to gy, well bdd, firm, W/ num 1"-3" shaly organic mof bands, & W/ occas thin strks of fn grnd gy SS. Good 3° dips. Occas slicks at 45°-30°. No odor; no show under light.
#3	3047	3058	9' 6" 4' 6"	SS	Lt gy to brn, masv, easily friable, fn grnd, silty, poorly sorted; W/ occas 1" strks of dk brn organic shale.
			2'	SLTST	Dk brn, masv, firm, micromicaceous; W/ occas thin strks of fn grnd gy SS.
			1'	SS	Lt gy, masv, easily friable, med grnd; W/ macrofossil frags. No show under light.
			2'	SLTST	As above.
#4	3058	3068	2'	SLTST	As above, W/ 2" soft, sticky, lt brn clay at top. Dips approx 5°.
#5	3068	3078	10' 2' 8'	SS	"Shell".
				SLTST	Dk brn, firm, masv, W/ pockets & lenses of gy SS. Core badly balled W/ mud. W/ sev minor strks of gy SS.
#6	3078	3088	10' 3' 2' 5'	SLTST	As above.
				SS	Dk gy, masv, soft, fn grnd, silty.
				SLTST	Dk gy, firm, masv, W/ occas strks of brn organic shale. Dip 5°. W/ one 1" strk of lt brn, unevenly stnd oil stnd sand at 1' from bottom of core; med grnd, W/ weak odor & straw cut.
#7	3088	3098	6'	SLTST	Dk gy, masv, firm, micaceous; W/ lenses & pockets of gy SS.
#8	3098	3108	10'	SLTST	As above; badly mixed W/ mud.
#9	3108	3118	10'	SS	W/ three 2" strks of sltst interbdd. SS is lt gy, masv, soft, friable, fn to med grnd, perm. Sltst is as above. Fair 14° dip; no flash.

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#10	3118	3128	10'	SLTST Dk gy, masv, firm, micaceous; W/ pockets & lenses of gy SS. No flash.
#11	3128	3138	10'	SLTST As just above.
#12	3138	3148	10'	SLTST & SS (60/40) interbdd. Sltst is dk gy, masv, micaceous, firm, sdy in spots. SS is lt gy, masv, loose to easily friable, crse to fn grnd. Seems to have a brownish cast in places, but has no odor; no cut.
#13	3148	3158	3'	SS As directly above, but crse to med grnd; W/ 6" sltst near top.
#14	3158	3168	3'6"	0'6" SS "Shell". 3' SLTST & SS (80/20) interbdd as directly above.
#15	3168	3178	10'	SLTST Dk gy, masv, micaceous, firm; W/ scattered strks of OS & gy sd in bottom 6'. OS is med to fn grnd, easily friable, appears perm W/ distillate odor & deep amber cut.
#16	3178	3188	10'	SS Lt gy to faintly stnd in top 2'; crse to med grnd, friable, appears perm. W/ thin (1/4-1") strks of sltst & sdy sltst thruout (aggreg 10% of core). Amber cut; no flash.
#17	3188	3198	4'	0'6" SS Lt gy, masv, friable, med to orse grnd, perm 0'6" SS "Shell". 3' SS As above.
#18	3198	3202	3'	1'6" GY SS As above. 1'6" SS "Shell".
#19	3202	3211	1'6"	0'2" SS "Shell". 1'4" GY SS Lt gy, masv, firm, friable, crse grnd, W/ some gravelly, appears perm.
#20	3211	3221	10'	GY SS Med gy, masv, soft, friable, fn grnd, rather silty. No odor; no flash.
#21	3221	3231	9'	3' SS Dk gy, masv, soft, fn grnd, badly mud-shot. 6' SLTST Dk gy, firm, masv, badly mixed W/ mud. No flash.
#22	3231	3241	10'	4'2" SLTST Brn, masv. 0'11" SAND Gy, med grnd, soft. 0'3" SLTST As above. 3'0" SAND As above. 0'2" SLTST As above. 1'6" SAND As above.

	<u>FROM</u>	<u>TO</u>	<u>RECOVERY</u>		<u>DESCRIPTION</u>
#23	3241	3251	4'	SAND	Gy, med grnd, soft.
#24	3251	3261	9'6"	0'6" SAND	Gy, med grnd, soft.
			4'0" SLTST	Brn, masv, W/ occas sd strks.	
			2'0" SAND	As above.	
			2' SLTST	As above.	
			1' SAND	As above.	
#25	3261	3271	9'	1'2" SAND	Gy, med grnd, soft.
			0'4" SLTST	Brn, masv.	
			0'8" <u>OIL SD</u>	Med grn, fne grnd, soft, W/ weak odor.	
				Fluorescent under light.	
			0'2" SLTST	As above.	
			0'1" <u>OIL SD</u>	As above.	
			4'7" <u>SLTST</u>	As above.	
			2' SLTST	(50%) W/ thin beds of gy sd (50%). Good 14° dip.	
#26	3271	3281	9'	8'6" SAND	(75%) oil stnd thruout a third of total, W/ thin sltst stringers (25%). Fluorescent in spots.
			0'6" SLTST	Brn, W/ poor 14° dip.	
#27	3281	3291	10'	SLTST	W/ one 2" strk of oil sand at 4' from top of core. Sltst is dk gy, firm, masv, W/ occas thin strks of brn shale. Dip 9°. Oil sand is lt brn stnd, W/ weak odor and straw cut. Weak glow under light.
#28	3291	3300	10'	SLTST	W/ thin partings of oil sd. Sltst is dk br, masv, micaceous, firm, badly mixed W/ mud. Oil sd partings are med brn, unevenly stnd, firm, fn grnd, silty, perm, mud shot; W/ weak odor & pale to lt amber cut. No flash. Gives even glow under light.
#29	3300	3310	9'	SLTST	Interbdd W/ 1"-2" strks of oil stnd sand (60/40). Sltst is dk gy, firm, well bdd, W/ strks of brn shale & thin laminae of gy SS. Good dip of 14°. SS is med brn to dk brn, evenly stnd, W/ thin laminae of sltst; soft, fn grnd, appears perm. W/ distillate odor & amber cut. Gives even glow under light.
#30	3310	3320	3'	SLTST	W/ thin partings & laminae of oil stnd sd. Sltst is dk gy, firm, micaceous, irreg bdd W/ brn shale strks. Oil stnd sd is lt brn, unevenly stnd, fn grnd, W/ weak odor & straw cut. Gives weak glow under light.

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SEP 11 1948
LOS ANGELES, CALIFORNIA

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#31	3320	3330.	10'	SLTST W/ 1/4"-2" strks of Oil sd, interbdd as above. Fluoresces thruout; no gy sd. Good odor & good amber cuts (aggreg oil sd 25%). Dips vary from 7°-14°.
#32	3330	3340	9'	SLTST W/ 1/2"-4" strks of sand, some of which is lt brn oil sand (fluorescent). No observable dips.
#33	3343	3353	10'	SLTST Brn, masv, firm, W/ few v. thin (1/8") strks of oil stnd SS, and 1" strks oil sd at top of core; lt brn, masv, fn grnd, W/ good odor & straw cut. No dips. Oil sand fluoresces.
#34	3353	3363	10'	SLTST Dk brn to gy, masv to v. poorly bedded & xbdd, firm, W/ sev 1" strks of oil stnd SS; lt brn, fairly evenly stnd, except where silty, fn grnd, easily friable, poorly bdd. SS is occas gy where perm is low. Generally dk amber cuts & good odor. Poor 14° dips. Aggreg oil stnd SS, 6".
#35	3363	3373	10'	SLTST As above, W/ sev 1"-3" strks of SS, about 1/2 of which is oil stnd. SS is v. fn grnd & perm appears low thruout. Aggreg oil sd, 6". Poor 10°-12° dips. Oil sd fluoresces under light.
#36	3373	3383	10'	SLTST As above, interbdd W/ gy SS 7" oil stnd SS as above, & W/ 10" SS shell at 4-1/2' from bottom. Oil stnd sand is not spotty, but is evenly stnd--even where it occurs in contact W/ gy SS--and appears to be more perm than gy SS. -Gives dk amber cuts. Aggreg OS, 6"; gy SS, 6"; oil sand fluoresces evenly. 14° dip on ptg.
#37	3383	3393	10'	SLTST As above, W/ occas interbeds (1/2"-4") of SS lt gy to brn, masv, v. fn grnd, silty, easily friable. About 1/2 (aggreg 4") is oil stnd, some of which is spotty in gy SS; permeability low thruout. Light indicates spot-ty staining. V. dk amber cut & good odor, but has wet appearance in best portion. Considerable free oil & gas on mud sheath.
#38	3393	3404	11'	SLTST As above, W/ occas thin strks (1/8"-1/2") of lt gy-brn oil sand; v. fn grnd to silty, soft. Sand amounts to less than 5% of core.

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RE: Boyle Community 17-1

Core Record R/D

LOS ANGELES, CALIF. T-1

	FROM	TO	RECOVERY	DESCRIPTION
#39	3404	3414	10'	SLTST As above, W/ num 1/4"-2" strks of lt gy-brn oil sand; v. fn grnd to silty, soft, micaceous, usually well bdd (gave excellent 13° dips); has strong distillate odor & straw cut. Sand amounts to approx 10% of core.
#40	3414	3424	10'	SLTST As above, W/ rare thin partings of lt gy-brn oil sd, W/ some partings of gy silty SS. No odor. W/ bottom 1' of sltst W/ high angle fract's & slicks.
#41	3424	3434	1'	SLTST As above, W/ excellent dip of 12° on dk brn platy band.
#42	3434	3444	10' 7'	SLTST As above, W/ following interbdd constituents: three 1/2" strks of gy-brn oil sd in top 2'; gy spotted & strkd (appears wet); 8" of oil sd at 2'; med grn, W/ gy spots & strks, fn grnd to silty, soft, has strong distillate odor. 3" SS "Shell" at 5' & at 6' from top.
			3'	SLTST As above, closely interbdd, W/ gy-brn oil sd in 3"-6" strks. Oil sd is fn grnd to silty, soft, appears perm; looks wet, W/ gy spots & strks thruout.
#43	3444	3454	10'	SLTST As above, closely interbdd W/ 2"-6" strks of oil sd (50/50). Oil sd is weak looking, gy spotted & strkd, v. soft, fn grnd to silty.
#44	3454	3464	10'	SLTST & GY SS (50/50) closely interbdd in 1"-3" strks, W/ 6" SS "Shell" at 6" from top. Sltst is lt gy, masv, sdy, micaceous, soft, SS is gy, masv, friable, fn grnd, silty, W/ sour odor & 5-sec flash.
#45	3464	3474	10'	SLTST As above (90%), W/ scattered thin 1/2"-3" strks of gy sd (10%). Poor 10° dip on SS strks; no color under light.
#46	3474	3484	10'	SLTST As above (90%), W/ scattered thin strks of oil sd & gy sd. OS is fn grnd, easily friable, W/ distillate odor & good amber cut. 6" strk of OS in bottom 3' fluoresces under light. Scattered thin strks of brn organic shale give good 12° dip.
#47	3484	3494	10'	SLTST As above, W/ thin (1"-3") strks of gy-brn oil sd as directly above. Sand fluoresces under light; gives lt amber cut. W/ 1' SS "Shell" at 2' from top. No flash.

RECOVERY

SEP 11 1948

DESCRIPTION

	FROM	TO			
#48	3494	3504	10'	SLTST	Dk gy, firm, masv, W/thin lenses of gy SS. Core badly mud-shot. No flash.
#49	3504	3514	10'	SLTST & OIL SD	(90/10) interbdd in 1/2" to 1" strks. Slstst is dk gy, firm, generally masv, W/ occas strks of brn shale. Good 15° dip. Oil sand is med brn, unevenly stnd, soft, fn grnd, silty, W/ distillate odor & lt to dk amber cut. Appears not very perm. W/ abund gas bubbles on mud sheath; shows weak glow under light. Puff flash.
#50	3514	3524	10'	SLTST	As above, W/ sev 1/4"-1" strks of oil stnd SS thruout, and W/ 10" closely interbdd oil SS and sltst at 1' from bottom. Oil SS is lt brn, lightly stnd, thin bdd, easily friable, fn to med grnd, weak-looking W/ weak odor & dk amber cut. Weak glow under light. 3-second flash; fair 14° dip. Total oil stnd SS, 14".
#51	3524	3534	10'	SLTST	Dk brn, masv to well bdd W/ num dk brn organic shale laminae, and W/ sev 1"-3" strks of oil stnd SS thruout and W/ one 8" strk of oil sd at 1' from bottom. Oil SS is brn, masv to thin bdd, soft, easily friable, fn grnd, poorly sorted; looks wet; has weak odor; gives dk amber cut. No flash. Good 14° dip. Weak glow under light.
#52	3534	3544	10'	SLTST	As above; W/ num 1"-2" strks oil sand as above in upper 7', and W/ sev strks gy SS; fn grnd, thin bdd, easily friable, not v. perm. in bottom 3' but W/ one 2" strk of brn oil stnd SS at bottom. 10-second flash; weak glow under light; oil SS looks wet. 10° dip.
#53	3544	3554	10'	SLTST	Dk brn, masv, firm, W/ occas 1"-3" interbds of fn grnd, soft, poorly sorted SS. SS is gy in upper 4' and is oil stnd when present in lower 6', W/ minor amounts of gy SS. Dk amber cuts, distillate odor (looks fair). Appears to be dip change in middle of core, W/ dips up to 40° in bottom. May be fault, but no slicks noted.
#54	3554	3564	10'	SLTST	As above, W/ num 1/4"-2" strks gy SS interbd. Three 1" strks oil std SS occur near center of core. Oil SS is brn, fn grnd, soft, W/ fair odor & nearly-black cuts. Good dips of 28°-30°.

RECORDED
SEP 11 1948

	FROM	TO	RECOVERY		DESCRIPTION
					LOS ANGELES, CALIF. 7A
#55	3564	3574	7'	5'	SLTST Lt to dk brn, masv, firm, W/ 1/8" strks of gy, masv, fn grnd SS.
				2'	SS Gy-brn, oil stnd, masv, friable, W/ few scattered 1/4" strks of brn sltst. Aggreg oil sand 1". Fair 19° dip; faint slicken-side. Amber cut; 6-second flash.
#56	3574	3584	9'6"	1'	SLTST Dk-lt gy & brn, W/ scattered strks of OS.
				1'	OS Dk amber cut.
				7'	SLTST Dk gy-brn, W/ scattered strks of OS. Good 12° dips and some 18° dips. Dk amber cut; good odor. Slicks at bottom of core. Aggreg oil sd, 2'.
#57	3584	3594	8'	1'	SS Gy to oil stnd, silty.
				4'	SLTST Dk gy, masv, badly broken in coring, contains spots & strks of oil sd.
				1'6"	SS Gy to oil stnd, silty, masv, friable, mixed W/ mud. Gives dk amber cut.
				1'6"	SLTST As above, W/ strks of fine grnd OS. Aggreg oil sd, 2'.
#58	3594	3604	10'	1'	OS Dk gy to oil stnd, silty, masv, firm to friable, W/ thin beds of sltst (3"). Dk amber cut.
				1'6"	OIL SD W/ thin (1/8") beds of sltst.
				7'6"	SLTST As above, interbdd W/ stringers of OS. Dk amber cut. Aggreg OS, 2'6"; 8-sec flash. One parting or dip (?) at top of core, 35°.
#59	3604	3613	10'	7'6"	SLTST Lt to dk gy, masv, firm; no dips. W/scattered 1/4" strks of oil sd.
				0'6"	SS "Shell", white-gy, hd, masv, W/ poor 9° dip.
				2'6"	SLTST As above. (Core appears to contain oil stns thruout).
#60	3613	3623	10'		SLTST Dk gy, firm, masv, W/ scattered strks of brn shale. Fair dip of 10°. W/ two minor (1/4") strks of brn stnd silty sand. Weak odor & dk cut. Gives weak glow under light.
#61	3623	3633	6'	4'	OIL SD W/ three 2" strks of sltst interbdd. Oil Sd is med brn, unevenly stnd, soft, fn grnd, perm. W/ heavy oil odor; dk amber cut. Sltst is dk gy, firm, masv.
				1'	SS SHELL
				1'	OIL SD As above. Shows even glow under light.
#62	3633	3643	10'	1'--	SS SHELL Lt gy, masv, calcite-cmted.
				3'6"	SLTST As above, W/ aggreg of 6" interbdd oil SS in 1"-2" strks. Oil SS is dk brn, well saturated, evenly stnd, fn grnd, easily friable; W/ good odor & some free oil.

(Cont.)

	FROM	TO	RECOVERY		DESCRIPTION
#62	3633	3643 (Cont.)	1'		OIL SS as above; looks good. Cuts dk amber to al-most black.
			4'6"	SLTST & OIL SS	Interbdd (60/40). Oil SS has good odor, nearly black cuts; well saturated, W/ some free oil. Occas gy spots where SS is imperm. 10-sec gas flash; gas spewed from thrds as barrel was being broken. Dips are low (10°-20°) but no good ones available.
#63	3643	3653	10'	8'6"	SLTST Dk brn, masv to well bdd W/ occas thin organ-ic shale laminae, and W/ aggreg of 1' inter-bdd oil SS as above. Black cuts, good odor. W/ 3" interbdd, Gy SS -- lt gy, thin bdd, v. fn grnd, silty, occas spotty oil stns.
			1'6"	OIL SS	Med grn, masv, generally evenly stnd but W/ occas gy spots near bottom; fn grnd, soft easily friable. Good odor & blk cut. 10-sec flash; good 11° dip.
#64	3653	3663	9'		SHALE Dk brn, well bdd, firm, fissile (poker chip", W/ abund dk brn organic laminae. Interbdd 1/2"-2" strks of oil SS thruout, and W/ one 6" strk of oil SS at 6" from top. Oil SS is med brn, fairly evenly stnd, W/ occas gy spotty, tight, silty strks, easily friable, fn grnd. W/ dk amber cut & fair odor. One 6" strk looks wet. Good 9° dips. One-min. gas glash (best to date). Abund gas pocs in mud sheath. Oil SS fluoresces strongly ex-cept for 6" strk (here, it is weak).
#65	3663	3673	11'	8'	SLTST Lt brn, masv, firm, W/ occas thin (1/2"-1/4") strks of oil sd.
			0'6"	OIL SD	Lt brn, masv, friable, fn grnd.
			2'6"	SLTST	As above, W/ 4" strk oil sd. 4-sec flash. Lt amber cut; good odor thru-out. All sltst is oil stnd; aggreg oil sd, 1'.
#66	3673	3683	10'6"	6'6"	SLTST As above, W/ thin strks oil sd.
			4'	OIL SS	Lt brn, masv, friable, med grnd, W/ 1/8"-2" beds of sltst and 4" SS Shell. 3-sec flash good odor; amber cut. Free oil on surface of core thruout. Gas press in core continues to force dk brn oil to surface of core. Aggreg oil sd, 3'. 12° bedding (?) slick.

RECORDED
SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
			LOS ANGELES, CALIF. 7A	
#67	3683	3693	10' 4'	OIL SD As above (90%) interbdd w/ hd SS Shell & sltst. 3' SLTST As above (poker chip) w/ thin (1/4") strks of oil sd. 3' SLTST As above, w/ thin strks of oil sd; some slicks. Dips 11°-15°. Aggreg oil sd, 3'; oil stnd thruout core. Instant flash; dk amber cut.
#68	3693	3703	10' 6"	OIL SD & SLTST (50% oil sd). Sltst is dk gy-brn, thin bdd, poker chip, firm; alternating w/ lt brn friable, fn-med grnd oil sd; cuts dk amber. SS & sltst layers vary from 1/8" to 8" in thickness. W/ 2" of SS Shell at 1' 6" from top of core and 2" SS Shell at bottom. Dips 14°. One near-vertical slick.
#69	3703	3713	10'	OIL SS Masv, friable, fn-med grnd, separated by 1/2" to 6" beds of above sltst. Oil sd varies from 1/4" to 2' thick. Instant flash; dk amber cuts; good odor. Aggreg oil sd, 7'.
#70	3713	3723	10'	OIL SD W/ six 1" strks of sltst interbdd. Oil sd is med brn, evenly stnd, well saturated, friable, fn to med grnd, appears perm. W/ distillate odor & blk cut. 3-sec flash. Sltst is dk gy, firm, masv. Oil sd shows very even glow under light. (Core analysis sample at 3720').
#71	3723	3733	10'	OIL SD W/ occas minor strks of sltst and W/ one 4" strk of gy SS at 1' from bottom. Oil sd is med brn, evenly stnd, fn to med grnd, perm, fairly well saturated, W/ distillate odor, blk to dk amber cut; puff flash. SS is lt gy, masv, soft, fn grnd, silty. Oil sd shows even glow under light. (Core analysis sample at 3730').
#72	3733	3743	4'	OIL SD Med brn, evenly stnd, well saturated, fn grn, soft, friable, appears perm. W/ free oil on mud sheath. Distillate odor; dk cut; puff flash. Shows even glow under light.
#73	3743	3753	8'	SLTST Med gy-brn, masv, sdy, micaceous, firm to hd, W/ 4" strk of cmtd SS "Shell" at top, & W/ occas strks of gy-brn "wet-looking" oil sd in upper 5' of core. W/ gy SS strks in bottom 3' of core. W/ no cuts or odor, and

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#73	3743	3753 (Cont.)		W/ low-angle slick fract's thruout. Sand amts to approx 30% of core.
#74	3753	3763	8' 6'	SLTST AS above, closely interbdd W/ gy SS in 2"- 6" strks (no cuts or odor). SS strks are v. fn grnd to silty, med gy in color, firm but friable by fingers, probably not v. perm. W/ slick fract's in upper 3' (vertical fract's W/ nearly-horizontal slicks).
			1'	SS SHELL CaCO ₃ cmt'd, dense, masv, bluish-gy in color.
			1'	SLTST As above, W/ 3" SS strk in middle--med gy, silty, firm, W/ no cut or odor.
#75	3763	3773	10'	SLTST & GY SS (50/50). Sltst is dk brn, masv to occas well bdd, firm. SS is med gy, fn grnd, masv in interbds up to 8", is easily friable, appears not v. perm, W/ single 2" strk of spotty oil-std SS at 1'6" from bottom. Amber cut; 1-sec flash. Good 13° dip. Ver- tical fractg. at top of core.
#76	3773	3783	10'	SS Lt to med gy, masv, easily friable, fn to mod grnd, poorly sorted, not v. perm; W/ occas 1"-2" strks of sltst as above. 3" strk spotty oil std SS at 2'6" from top. 23° slicks at bottom; fair 10° dip.
#77	3783	3793	7' 5'6"	SLTST Dk grn, masv to well bdd, firm, W/ sev 2"-3" strks of lt gy, masv, easily friable, fn grnd SS, W/ occas spotty oil stns.
			1'6"	OIL SS Dk brn, masv, soft, easily friable, uneven- ly std; weak odor; appears spotty under lt; looks wet; cuts dk amber. Good 14° dip.
#78	3793	3803	10' 2'	OIL STD SS Lt brn-gy, masv, fn-med grnd, well sorted, evenly but lightly std, crushed in coring. W/ dk amber cuts; moderate kerosene odor. Moderate glow under light.
			8'	SLTST Brn-gy, masv, firm, interbdd in 2"-6" beds W/ thin (1/4"-1/2") strks of fn grnd, lt brn oil sd interbdd in lower 6' (aggreg OS, 4").
#79	3803	3813	10'	SLTST As just above, W/ interbdd OS in 1/4"-1" strks (aggreg 10%). W/ kerosene odor, nut brn color, dk brn cut. No flash (core stood in barrel). Common free oil.

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SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#80	3813	3823	10'	SLTST As just above, W/ interbdd oil sd in 1/2"-2" beds (aggreg 20%). Kerosene and Sulphurous "burned" odor; dk brn cuts; small flash. Oil sd crushed & squeezed around sltst; abund free oil.
#81	3823	3833	10'	SLTST As just above, W/ interbdd oil sd (5%) and gy SS (5%) in 1/4"-1/2" strks. Strong kerosene-sour gas odor in oil sd strks. Gy SS strks are fn-silty, W/ occas well-bdd laminae of organic shale. Amber to dk amber cuts.
#82	3833	3843	10'	3'6" SLTST As above, W/ interbdd strks of gy silty SS. 0'6" OIL SD Lt brn, masv, fn grnd, crushed, W/ dk brn cut, kerosene-sour gas odor. 2'6" OS, SLTST & SILTY SS Interbdd (Oil Sd, 35%; sltst, 35%; silty SS, 30%). 3'6" SLTST As above.
#83	3843	3853	10'	SHALE (50%) with 1/2"-6" beds of fn to med grnd gy sd & minor oil sd. Good dip of 14°. Fluorescence proves oil sd unimportant.
#84	3853	3863	10'	5' SHALE (60%) with 1/2"-8" beds of fn to med grnd oil sd and minor gy sd. 1' OIL SD Fn to med grnd, W/ gy strks. 4' GY SS W/ minor oil sd and 1/4" beds of shale (30%). Good dip of 14°.
#85	3863	3873	10'	8' OIL SD Med grnd, lt brn, weak-looking, W/ 5" Shell at 3' from top. Minor strks of gy sd. 2' GY SD Fn to med grnd.
#86	3873	3883	10'	SLTST As above, W/ interbdd oil sd strks (1/2"-2"). Oil sd is med brn, silty, soft, has strong oil odor. W/ occas strks of dk brn platy shale, giving good dips of 11°.
#87	3883	3893	10'	1' SLTST As above, W/ 2" oil sd strk in middle. 9' OIL SD Med brn, med to fn grnd, soft, appears perm has strong burnt odor; dk amber cuts. Oil sd shot thruout W/ rotary mud in 1/4" bands every 1/4" to 1/2".
#88	3893	3903	10'	8' OIL STD SS Lt brn, masv, soft, easily friable, fn to med grnd, W/ one foot very crse grnd SS at 4' from top. Weak oil stng thruout, W/occas gy strks. Has weak odor; glows dimly under light. Pale amber cut. (Cont.)

RECORDED
SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#88	3893	3903 (Cont)	2'	GY SS Med gy, masv, soft, easily friable, fn to med grnd, W/ 3" SS Shell at bottom; occas strks <u>oil stnd</u> . Good 13° dip.
#89	3903	3913	7'	3' GY SS Gy as above, W/ no oil strks. 2' SS SHELL W/ occas 1/4"-1" strks slightly <u>oil stnd</u> SS. 2' SS Gy to lt brn, masv, easily friable, fn to med grnd, W/ spotty, uneven <u>oil stns</u> thru-out. Weak odor; weak glow under light; lt amber cut.
#90	3913	3923	10'	OIL STD SS & SLTST Interbdd (50/50). SS is gy, W/ some lt brn uneven stng, soft, fn grnd, appears perm; has distillate odor; lt to dk amber cuts. Slstst is dk gy, firm, W/ occas thin strks of brn shale, giving good dip of 25°. W/ 1' SS Shell at 3' from bottom of core. No flash.
#91	3923	3933	8'	1' SS Lt brn, <u>unevenly stnd</u> , mud-shot, soft, fn grnd, silty, W/ distillate odor & lt amber cut. 2' SS SHELL 5' OIL STD SS As above, W/ sev thin strks of sltst interbd as above. Weak glow under light.
#92	3933	3943	10'	0'6" OIL SD Med brn, <u>unevenly stnd</u> , mud-shot, soft, fn grnd, W/ dk cut. 0'6" SLTST Dk gy, firm, masv. 1'- OIL SS Lt brn, as above. 3'6" OIL SD Lt brn, <u>unevenly stnd</u> , firm, friable, med grnd, perm, W/ pale cut and weak odor. 4'6" OIL SD As above, W/ two 6" strks of above sltst. Weak to even glow under light.
#93	3943	3953	10'	SLTST As above, W/ interbdd <u>oil sd</u> strks (6"-8"). Oil sd amounts to approx 40% of core; is lt brn to med brn, fn grnd to silty, soft, appears perm. Cuts range from lt amber to dk brn; some strks appear to be v. weak and W/ a grayish-wet appearance. No gas flash. Numerous high-angle fracts in sltst (bottom 3'),
#94	3953	3963	10'	SLTST As above, W/ thin bands of dk brn, platy, organic shale in bottom 3'. Good dips on bands (23°), and W/ occas thin strks (1-3") of dk brn, firm oil sd thruout core (approx 10%). Has strong oil odor and gives dk brn

RECOVERY

SEP 11 1948

DESCRIPTION

	FROM	TO			
#94	3953	3963 (Cont.)			cut; no gas flash. Numerous high-angle slick fract's thruout; slicks parallel to fract's.
#95	3963	3973	10'	SLTST	As above, W/ occas strks of platy shale; finely laminated, W/ mouse-gy and dk brn organic laminae; gives excellent dips of 21°. W/ occas 1"-3" strks of lt gy, <u>slightly oil stnd sand near middle of core; usually in grnd, soft, appears perm.</u> No flash.
#96	3973	3983	10'	SLTST	(80%) W/ interbdd shale (15%) and gy SS (5%) as above. W/ 2" <u>oil stnd SS at top</u> ; lt brn, fn grnd, W/ brn cut & v. weak odor. Excellent 18° dip at 3' from bottom. 2"-1/2 sec flash. Moderately crushed & mud-shot thruout; common low angle fract's & slicks.
#97	3983	3993	7'6"	SLTST & GY SS	(50/50). Sltst as above, W/ common 1/4" organic shale strks. SS is lt gy, v. fn grnd, well sorted, crushed in coring. V. good 26° dip at bottom. No cut. Entire core interbdd in 2"-6" beds.
#98	3993	4003	9'6"	0'6" SLTST	As above.
				1' SS	Gy, fn grnd, as above; moderately perm.
				4'6" SLTST	As above.
				2'6" GY SS	Banded, finely micaceous; silty, v. firm, imperm.
				1' <u>OIL SD</u>	Spotty oil sd (50%), sltst & shale, crushed in coring; moderately perm. Dk brn cut, moderate petroleum odor. Good 21° dip in middle.
#99	4003	4013	10'	SLTST & GY SS	Interbdd in 1"-10" beds. SS (40%) is lt gy, masv, fn grnd to silty, W/ 1' SS in middle having 2" lt brn <u>spotty oil sd at top</u> dk brn cut; weak petroleum odor. Numerous high-angle fract's W/ horizontal slicks.
#100	4013	4023	10'	SLTST	As above, W/ 20% interbdd SS; lt to med gy, masv, soft, easily friable, mainly fn grnd, but W/ 6" strk med grnd & poorly sorted SS at 2'6" from bottom. Violet light shows no oil. Entire core badly fractd thruout. Good 20°-22° dips. 5-sec gas flash.

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SEP 11 1948

	FROM	TO	RECOVERY		DESCRIPTION
#101	4023	4033	11'	1'6"	SS Gy, masv, easily friable, contains much carb matter.
			2'	SLTST	Dk to lt brn, masv, firm to hd, W/ spots & strks of gy SS; steep slicks.
			0'4"	GY SS	As above.
			2'8"	SLTST	As above.
			2'	SS	Gy, masv, easily friable, fn grnd, W/ few thin strks above sltst.
			1'	SLTST	As above.
			1'6"	GY SS	Masv, easily friable, med-crse grnd. Core badly shattered W/ slicks.
#102	4033	4042	10'6"	GY SS & SLTST	(60/40). SS is masv, interbdd W/ 1/8"-3" beds of gy to lt brn, firm to hd, badly shattered sltst. W/ 2" SS Shell at bottom of core. Instant flash.
#103	4042	4052	10'	1'	SLTST & GY SS As above.
			0'6"	SS	Lt brn, oil stnd, masv, easily friable, fn grnd; W/ lt amber cut.
			0'6"	SLTST	As above.
			1'	SS	Gy to oil-std, as above, W/ thin 1/8" strks of sltst.
			3'6"	SLTST	As above, W/ thin (1/8"-1") bands of gy SS.
			3'	SS	Oil stnd, masv, easily friable, fn to med grnd, W/ two 2" beds of sltst. Lt amber cut, petroleum odor; instant flash. (Aggreg oil stnd SS, 2'6"). Upper part of core shattered; no dips.
#104	4052	4062	10'	OIL STND SS	(90%) interbdd W/ thin strks of sltst (10%). SS is lt brn, unevenly to spottily stnd, friable, fn to med grnd, perm, silty in spots; W/ weak odor & pale cut. Sltst is dk gy, masv, firm, micaceous. No flash.
#105	4062	4072	10'	8'	SLTST & GY SD (50/50) interbdd in 1"-2" strks. Sltst is dk gy, masv, firm, W/ some fract & slicks thruout. 24° dip on fract plane. SS is med gy, masv, soft, fn grnd, silty.
			1'	SS	Very lt brn, unevenly stnd, mud-shot; weak odor, pale cut. Abund gas bubbles on mud sheath. Gives weak glow under light.
			1'	SLTST	As above.

	FROM	TO	RECOVERY	SEP 11 1948	DESCRIPTION
#106	4072	4082	6'		UC SEEST Dk gy, firm, masv, W/ lenses & pockets of gy SS. Core is badly fractd & broken; slicks. No flash.
#107	4082	4092	8'	1'	SS Med gy, masv, soft, fn grnd, silty; W/ occas thin sltst laminae.
			7'		SLTST Dk gy, masv, firm, crumbly; highly fractd & broken. No flash.
#108	4092	4102	6'	3'	SLTST Dk gy, masv, firm; W/ lenses & pockets of gy SS.
			3'		OIL STD SAND Lt brn, unevenly stnd, mud-shot, soft, fn grnd, perm; W/ weak odor & amber to pale cut. No flash. Free oil on mud sheath; shows even glow under light.
#109	4102	4112	10'	5'6"	OIL STD SAND Lt brn, rather unevenly stnd, friable, fn grnd, perm. W/ weak odor & lt amber cut.
			1'6"		SS Dk gy, masv, friable, fn grnd, silty.
			1'		OIL STD SAND Lt brn, spottily stnd, as above.
			1'		GY SS As above.
			1'		OIL STD SAND Lt brn, weakly stnd, friable, fn grnd. No flash.
#110	4112	4121	9'		SS Lt gy, fn grnd, firm but easily friable, clean, well sorted, appears perm. No cuts or odor; no flash. W/ occas 1"-2" strks of sltst in bottom 3'. Thin bands in sltst indicate good dips of 17°.
#111	4121	4131	10'		SLTST As above, interbdd W/ thin strks of lt gy, fn grnd, firm sandstone (SS strks make up approx 20% of core); and W/ occas thin laminae of dk brn organic platy shale. Sltst is badly fractd-commonly into small frags. The more prominent fracts are high-angle to vertical, W/ nearly horizontal slicks. A 2' interval at 4' from top appear to be fault zone, finely fractd, W/ gouge. No cuts or odor in sandstone; no gas flash.
#112	4131	4141	10'		SS Lt gy to gy-brn, med-fn grnd, firm but easily friable, clean & appears perm; slightly oil stnd in spots & strks in a few places. Straw cut; lt oil odor. W/ occas 1"-2" sltst strk in top 3'. Good gas flash at top of barrel.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#113	4141	4151	10' 6'	SS As directly above, occas spotted or strkd w/ oil stns, and w/ occas 1" strks of sltst & 4" strk of sltst at base of interval.
			4' OIL SD	Lightly oil stnd, med-fn grnd, easily friable, clean & perm, w/ amber cuts (appears considerably better, although it looks wet). w/ spots & strks of gy through it, and w/ occas thin strks of sltst which is usually highly fractd. Good gas flash at top of barrel.
#114	4151	4161	10'	SS Gy, as directly above, w/ 3" strk slightly oil stnd at 6' from top, and w/ occas thin sltst strks thruout; fractd & slickd. Sltst amts to approx 10% of core. Fair dip of 17°; small gas flash at top of barrel.
#115	4161	4171	10'	SS Gy, masv, easily friable in parts, w/ alternating hard layers in part; fn to med grnd; contains thin organic strks at top of core. w/ 6" brn, hd, banded sltst at 3' from top and 2" sltst at bottom of core; slicks. Good 16° dip. No oil stn, odor or flash.
#116	4171	4181	10' 6"	1' 6" GY SS As above, w/ thin alternating bands of dk brn, firm sltst.
			0' 6"	SLTST As above.
			0' 6"	OIL SD Mixed w/ gy SS. Amber cut.
			2' 6"	GY SS As above, w/ some alternating hd layers.
			0' 6"	SLTST As above.
			1' 6"	GY SS As above.
			1' 6"	SLTST As above.
			1' 6"	OIL SD w/ some gy SS at bottom. Amber cut.
			0' 6"	SLTST w/ alternating strks of SS, as above; some fractg. Dip 21°. Instant flash.
#117	4181	4184.5	3' 6"	2' 6" SS Gy, masv, fn grnd, w/ 1/8"-1" bands of brn, organic, firm sltst.
			1'	SS SHELL Gy, v. hd, w/ some brn stns; masv. Dip 25°. No flash; no odor.
#118	4184.5	4195	8'	1' SS SHELL Gy, v. hd, fn grnd.
			7'	OIL SD & SLTST Lt brn, masv, fn grnd oil sand, interbdd w/ 1/4"-4" beds of above sltst (aggreg OS, 3'.) Sltst shattered near bottom of core. Dip about 22° (fair). Instant flash; good odor.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#119	4195	4205	6'	4'6" SLTST Dk gy, masv, firm, sdy, broken & fractd. 0'8" SLTST Lime cmt'd, badly broken & fractd. 1'2" SLTST Dk gy, masv, firm, sdy, broken & fractd.
#120	4205	4212	9'	1' SS SHELL Badly broken & crushed in coring. Shows occas weak stng. 7' SLTST Dk gy, masv, firm, badly mud-shot. 1' SS Lt brn, unevenly stnd, friable, fn grnd, mud-shot. W/ weak odor; lt amber cut. Shows weak glow under light.
#121	4212	4222	10'	OIL SD & GY SS Interbdd (50/50). Oil sand is lt brn, un- evenly to spottily stnd, soft, fn grnd, mud- shot; W/ burned sulphur odor & straw cut. SS is dk gy, masv, soft, fn grnd, silty, mud-shot, W/ 3" SS Shell. Broken & fractd; some free oil in fract. No flash.
#122	4222	4232	10'	SS Lt gy to lt brn, fn grnd, masv, easily fri- able, not v. perm. Aggreg of 20% is <u>spot-</u> <u>tily stnd</u> in 3"-6" strks, although associ- ated W/ gy SS. Minor amounts interbdd sltst as above; occas fract. Good 24° dip. No gas flash.
#123	4232	4242	10'	3' SS Lt gy to brn, masv, med to fn grnd, easily friable. About 50% is <u>spottily oil stnd</u> , W/ dk amber cut. 1' SLTST Dk brn, masv, firm, badly fractd. 2' SS Lt gy, masv, med to fn grnd, easily friable; no oil stns. 2' SS SHELL Lt gy, calcite cmt'd. 2' SLTST As above, W/ aggreg of 3" <u>spottily oil stnd</u> , fn grnd SS.
#124	4242	4252	10'	2'6" SLTST & SS (50/50) interbdd. Sltst is as above. SS is gy, fn grnd, easily friable, W/ 2" <u>strk oil</u> <u>stnd SS</u> at top. 1'6" SS SHELL Badly fractd, W/ <u>oil</u> along fract planes but not in SS. 1' SS Med gy, masv, easily friable, soft. No CSO. No show under light. 5-sec gas flash.
#125	4252	4262	10'	2' SS SHELL 2' SS & SLTST Interbdd (50/50). SS is dk gy, masv, soft, fn grnd, silty. Sltst is dk gy, masv, firm. 1' OIL SD Lt brn, <u>unevenly stnd</u> , soft, fn grnd, W/dis- tillate odor & amber cut. (Cont)

SEP 11 1948

RE: Boyle Community 17-

LOS ANGELES, CALIFORNIA

Core Record R/D

	FROM	TO	RECOVERY	DESCRIPTION
#125	4252	4262 (Cont)	2' SS SHELL 0'6" GY SS As above. 2'6" SS Lt brn, <u>unevenly stnd</u> to gy, as above. 0'6" SLTST As above. All <u>oil stnd</u> SS glows under light.	
#126	4262	4272	9' 1' OIL SD Lt brn, <u>evenly to unevenly stnd</u> , soft, fn grnd, W/ <u>distillate odor & straw cut</u> . 2' SS Interbdd W/ two 3" strks of above sltst. SS is gy, as above. 6' SS & SLTST Interbdd (50/50) as above, W/ two minor strk of <u>oil stnd</u> SS; shows glow under light. W/ <u>weak odor & cut</u> .	
#127	4272	4282	10' 6' SLTST Interbdd W/ thin strks of gy SS (90/10). Sltst is dk gy, firm, generally masv, W/ some slicks & fract. Good 15° dip. 2'6" GY SS Lt gy, firm, friable, med grnd, perm. No cut but shows v. weak glow under light. 1'6" SLTST As just above.	
#128	4282	4290	10' SLTST Interbdd W/ several thin strks of gy SS (90/10). Sltst is dk gy, firm, masv to well bdd W/ thin strks of brn shale. Good dips of 10° to 15°. SS is dk gy, soft, fn grnd to silty. Puff flash.	
#129	4290	4300	10' SLTST Interbdd W/ sev 1"-2" strks of <u>oil sd</u> (90/10). Sltst is dk gy, firm, masv to irreg bdd W/ strks of brn shale & gy SS. Some fractg. <u>Oil stnd sand</u> is lt brn, evenly stnd, masv, soft, fn grnd, clean, perm, W/ distillate odor & amber cut. W/ one 4" strk SS Shell in middle of core; has abund free oil on surface & some stng thruout. Core leaked gas while being opened. Oil sand shows good glow under light.	
#130	4300	4310	10' 3' SLTST As above. 6' OIL STD SD Interbdd W/ 1" strks above sltst (80/20). <u>Oil stnd sd</u> is lt brn, evenly stnd, well <u>saturated</u> , soft, fn grnd, perm; W/distillate odor & amber cut. Shows good glow under light. 1' GY SS Lt gy, masv, soft, fn grnd, clean, perm. No flash.	

RECORDED
SEP 11 1948

	FROM	TO	RECOVERY	ANALYSIS	DESCRIPTION
#131	4310	4320	10'	7'	SS Interbdd W/ sev 1" strks sltst (90/10). SS is lt brn, evenly to unevenly stnd, soft, fn grnd, perm; W/ distillate odor & amber cut. Sltst is dk gy, firm, masv.
			1'6"	SS SHELL	
			1'6"	SS	Lt brn stnd; as above. Shows even glow under light.
#132	4320	4330	10'	4'	OIL SD W/ two 2" strks of above sltst interbdd. Oil sd is lt brn, unevenly stnd, soft, fn grnd, perm; W/ distillate odor & amber cut.
			3'	SLTST	Dk gy, masv, firm, micaceous; some fractg & slicks.
			2'	OIL SD	As above.
			1'	SLTST	As above.
#133	4330	4340	9'		SLTST W/ two 2" strks SS Shell. Sltst is dk gy, firm, generally masv, W/ occas thin strks of brn shale. Dip 12°. Some fractg & slicks. SS Shell is hd, W/ some oil stng; free oil on surface. Puff flash.
#134	4340	4350	10'		SLTST As above, W/ occas minute lenses & thin strks (1/2"-2") of gy SS thruout. SS is fn grnd to silty, soft & friable, & W/ thin laminae of dk brn, organic shale. Dips range from 10-14°. Fracts & slicks common.
#135	4350	4360	9'2"		SLTST Dk gy, masv, firm, micaceous; W/ thin lenses & pockets of gy SS; fractg & slicks common. W/ one 2' vertical fract at btm of core. Puff flash.
#136	4360	4370	10'		SLTST Dk gy, firm, irreg bdd W/ thin lenses of gy SS and W/ occas thin strks of brn shale at top of core; badly broken. Fair dip of 17°. Some near-vertical & vertical fractg thruout core. Abund gas bubbles & some free oil spots on mud sheath. Puff flash.
#137	4370	4380	10'		SLTST Dk brn, well bdd, W/ abund shaly organic partings; occas thin strks of fn grnd gy SS. Entire core is badly fractd; almost one half so badly broken as to be called fault gouge. Weak oil odor & lt yellow cut in fault gouge; same gives med glow under violet light. Definitely a fault in this core. 17° dip above gouge zone. Instant gas flash.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
			LA ANGELES, CALIF. 7A	
#138	4380	4390	10'	SLTST Dk brn, masv, v. firm, W/ occas thin strks of fn grnd, lightly-stnd, hard oil SS (aggreg 5%); occas high-angle fract. Good 33-35° dip. W/ 6" fault gouge at top of core.
#139	4390	4400	9'	5' SLTST Dk brn, masv, firm, W/ few thin strks of lt brn, hd SS.
			1'	SS Lt brn, oil stnd, masv, hd, med grnd; gives lt amber cut. Dip 36°.
			3'	SLTST As above, W/ two 2" strks of friable oil sd; amber cut, fair petroleum odor. 25-sec flash. Aggreg oil stnd sd, 1'4". Entire core badly shattered & slickd.
#140	4400	4410	10'	4'6" SS Gy to lt brn, masv, hd to friable, fn-med grnd, W/ one 4" band of sltst & sev thin (1/4") layers of sltst. Cuts lt to dk amber.
			5'6"	SLTST Gy to dk brn, masv, hd, W/ some slicks but generally unbroken. Dips 43°. 3-sec flash; fair odor. Aggreg oil stnd sd, 4'2".
#141	4410	4420	9'	SLTST Lt to dk brn, masv, v. firm, W/ some dark carb strks near top of core; interbdd W/ a few 1" strks of oil stnd SS as above. W/ 4" lt brn, masv, friable, med grnd oil sand at base of core; gives amber cut. Dip 35-40°; many near-vertical slicks & fract. Good odor; instant flash; spots of free oil on surface of core. Aggreg OS, 0'6".
#142	4420	4430	10'	OIL SD Lt brn, masv, firm, to friable, med grnd, W/ four 6" layers of above sltst. W/amber cut, good odor; instant flash. Shows strong under light. Dips 35°. Aggreg oil sd, 8'.
#143	4430	4440	10'	2'6" OIL SD Lt brn, evenly to unevenly stnd, friable, fn grnd, perm, W/ good odor & amber cut.
			1'	GY SS Lt gy, masv, firm, friable, med-fn grnd.
			0'6"	SLTST Dk gy, firm, bdd W/ thin partings of gy SS. Dip 30°.
			3'2"	OIL SD As above; fair saturation.
			0'4"	SLTST Dk gy, firm, masv, fractd & slickd. Dips 59° on fract plane.
			1'4"	OIL SD As above.
			1'	GY SS As above.
			1'2"	OIL SD Lt brn, unevenly stnd, firm, friable, W/ pale cut. (Core analysis sample at 4437').

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#144	4440	4450	10' 5'	OIL SD W/ one 6" strk sltst in middle of core. Oil sd is lt brn, <u>unevenly stnd to gy spotted, friable, fn grnd, perm, W/ good odor & amber cut.</u> 5' SLTST Dk gy, firm, masv to irreg bdd; minor fractg thruout. 10-sec flash. Oil sd shows even glow under light.
#145	4450	4460	10'	SLTST W/ 2" oil sd at bottom of core. Sltst is dk gy, firm, well bedded W/ strks of brn shale to irreg bdd. Good dip of 36°. Some fractg & slickg thruout core. Top of core is chewed & broken. Oil sd is med brn, <u>evenly stnd, well saturated, fn grnd, perm, W/ good odor & dk amber cut.</u>
#146	4460	4470	10' 1' 8'	1' SLTST Dk gy, firm, masv. 8' OIL SD Interbdd W/ thin (2"-3") strks of above sltst. (Oil sd 90%, sltst 10%). Oil sd is med brn to lt brn stnd, <u>evenly to unevenly saturated, fn grnd, perm. W/ good odor & dk amber cut.</u> Shows good glow under light. 1' SS SHELL Lt gy, well cmt'd. (Core analysis sample at 4461').
#147	4470	4480	10' 3'	SLTST & OS (50/50) closely interbdd in 6"-8" strks. Sltst is as above, W/ occas high-angle fractg. Oil sd strks are dk brn, evenly stnd; looks rich; gives dk brn cuts; is fn grnd, soft & friable. Masv gy band in sltst indicates dip of 37°. 2' OIL SD Med brn, evenly stnd but not as dk as oil sd in sltst above. Gives amber cut; is med-fn grnd, soft & friable, clean & perm. 2' SLTST As above but no fractg. Occas lighter colored bands indicate dips ranging from 40-44°. 1' OIL SD Lt gy-brn, evenly stnd but has grayish cast; gives lt amber cut; is fn grnd to silty, soft & friable. 1' SLTST As above. 1' GY SS Lt gy, W/ lower 3" lt brn, <u>slightly oil std.</u> Gy SS is fn grnd to silty, <u>easily friable;</u> gives no cut. Good gas flash at top & bottom of barrel.

SEP 11 1948

	FROM	TO	RECOVERY	LOS ANGELES, CALIF.	DESCRIPTION
#148	4480	4490	10'	1'6" SS	Lt gy, W/ strks & spots of oil stng; fn grnd, firm but easily friable, well sorted; appears perm. Pale yellow-straw cut to no cut. W/ 3" sltst strk at 6" from top.
			7'6"	SLTST	As above.
			1'	SHALE	Beautifully banded W/ mouse-gy sltst (1/4" to 1/2" thick) and dk brn organic shale laminae (appears 1/32" to 1/4" thick). Dips range from 38-40°, and W/ bedding slicks.
#149	4490	4500	10'	0'6" SS SHELL	
			2'6"	SLTST	Dk gy, firm, irreg bdd W/ thin strks of brn organic shale & gy SS.
			1'	OIL SD	Lt brn, evenly stnd, soft, fn grnd; W/ gas odor & amber cut.
			1'	SLTST	As above. Dip 37°.
			1'	OIL SD	As above.
			4'	SLTST	As above.
#150	4500	4510	10'	SLTST	Dk gy, firm, well bdd W/ thin strks of brn shale & gy SS. Good dips of 37-40°. Some occas fract & slicks.
#151	4510	4520	10'	SLTST	Dk gy, firm, sdy, irreg bdd W/ strks of brn shale & W/ lenses & pockets of gy SS.
#152	4520	4530	10'	7' SLTST	W/ aggrog of 1' interbdd oil stnd SS. Sltst is dk gy, firm, bedded W/ strks of brn shale. Dips 22-25°. SS is lt brn, unevenly stnd, soft, fn grnd, appears perm. W/ straw cut.
			1'	OIL SS	As above.
			1'	SLTST	As above.
			1'	OIL SD	As above, but W/ dkr cut. Some fractg & slickg thruout core. Puff flash.
#153	4530	4541	10'	2' SLTST	Dk gy, firm, masv, fractd & slickd.
			8'	OIL SD	W/ two 4" strks of above sltst. Oil sd is lt brn, unevenly stnd, mud-shot in part. friable, W/ distillate odor & lt amber cut. Shows even glow under light. (Core analysis sample at 4537').
#154	4541	4551	7'6"	1'-0'6" SLTST	Dk gy, firm, irreg bdd.
				0'6" SS SHELL	
				0'6" SLTST	Dk gy, firm, W/ thin laminae of brn shale & strks of gy SS. Dip 36°.
			2'	SS	Lt brn, irreg stnd, grading to spottily stnd; friable, fn grnd, W/ lt amber to pale cut. (Cont)

RECORDED

SEP 11 1948

DESCRIPTION

	FROM	TO	RECOVERY		SEP 11 1948	DESCRIPTION
#154	4541	4551 (Cont.)	3'6"	SLTST	one vertical fract at 1' from bottom. Oil stnd sand shows no glow under light.	
#155	4551	4561	10'	SLTST	Dk brn to dk gy, firm, well bedded W/ num dk brn organic shale laminae, and W/ aggreg of 2' oil sd interbdd in 1/2"-6" strks. SS is lt gy to brn, v. fn grnd, easily friable, lightly but fairly evenly stnd, W/ no gy SS. Oil stnd SS gives pale cut and looks v. weak under light; not v. perm. Good 22° dip. Entire core fractd & slickd.	
#156	4561	4571	7'	SLTST	Dk brn to gy, masv, firm, W/ oil stnd SS in 8" strk at 2' from top and 6" strk at 3'6" from top. SS is lt brn, masv, easily friable, fn grnd, fairly evenly stnd, W/ medium yellow cut. Gives fair glow under light. Not very permeable. Entire core fractd & slickd. Gas pushed core 2' from barrel when core head was removed.	
#157	4571	4581	7'6"	SLTST	Dk brn, masv, firm, W/ aggreg of 1' interbdd 1"-6" strks of oil stnd SS; lt brn, fn grnd, easily friable to firm but friable, v. light ly to unevenly stnd. Gives pale yellow to yellow cut; v. pale glow under light. Entire core shattered and slickd (may be v. near fault.) No dips. No flash.	
#158	4581	4591	10'	SLTST & OS	Interbdd (50/50), W/ one 6" strk SS Shell at four feet from top. Slstst is dk gy, firm; all highly fractd & slickd. SS is lt brn, appears evenly stnd, soft, fn grnd, W/ lt amber cut. Shows weak glow to no glow under light.	
#159	4591	4600	10'	1' SS	Lt brn stnd, soft, friable, fn grnd, W/ distillate odor & straw cut.	
			2' SS	Dk gy, masv, friable, fn to med grnd, mic, silty, W/ no cut or odor.		
			1' SS SHELL	Med gy, hd, fn grnd, W/ dk brn oil stn in center. One steep fract, W/ free oil showing.		
			1' OIL SD	Lt brn, evenly stnd, friable, fn grnd, perm W/ lt amber cut.		
			5' SLTST	Dk gy, masv, firm, W/ aggreg of 8" interbdd oil sd. All of core is shattered & slickd. One 1" vertical fract in middle of sltst. Poor 26°		

FROM TO RECOVERY

SEP 11 1948 DESCRIPTION

#159 4591 4600 (Cont.)

Abund gas bubbles on mud sheath; oil sd shows weak glow under light.

#160 4600 4610 10' 1' SS SHELL W/ free oil showing in fract. 2' SLTST Dk gy, firm, highly fractd & slickd. Free oil spots in fract. 2' OIL SD Med brn, evenly stnd, firm, friable, fn grnd, appears perm. W/ good odor & amber cut. 1' SS SHELL As above. 4' OIL SD As above, W/ several 2" strks of interbdd sltst aggreg 8". Dip 42°. (Core analysis sample at 4604' & 4609').

#161 4610 4620 9' 4' OIL SD W/ two 2" strks of sltst interbdd. Oil sand is med brn, evenly stnd, friable, med-crse grnd, perm. W/ amber cut. 5' SLTST Dk gy, firm, generally masv, W/ some thin laminae of gy SS. Good dip of 50°. All of core fractd & slickd; free oil spots in fract. (Core analysis sample at 4613').

#162 4620 4628 2' 1' OIL SD Dk brn, evenly stnd, well saturated, firm, friable, med-fn grnd, well sorted; appears perm; looks rich. Gives good amber cut; has strong oil odor. (Core analysis sample at top of core). 1' SLTST As above.

#163 4628 4638 10' SLTST W/ three 2" strks of oil sd interbdd. Sltst is dk gy, firm, masv to irreg bdd. Top 2' is highly fractd & slickd; looks like fault zone. Has some oil spots thruout. Oil sand is lt brn stnd, soft, fn grnd, W/ lt amber cut.

#164 4638 4648 10' SLTST Interbdd W/ occas thin strks & partings of oil sd (90/10). Sltst is dk gy, firm, masv to irreg bdd. Dip of 42° on SS parting; 40-45° on sltst-OS contact. Oil sd is lt brn stnd, friable, fn grnd, appears perm. Amber cut.

#165 4648 4658 10' SLTST Interbdd W/ sev 1" to 2" strks of oil sd (aggreg 1') and W/ 6" SS Shell at 5' from top of core. Sltst is dk gy, firm, masv to irreg bdd W/ occas thin laminae of oil sd. Good dip of 47°. Some fractg & slickg.

(Cont)

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#165	4648	4658 (Cont.)		Oil sd is med brn, evenly stnd, soft, fn grnd, perm, W/ dk amber cut. SS Shell is fractd, W/ abund free oil on surface & on fract planes.
#166	4658	4668	8'	SLTST Dk gy, firm, irreg bdd to well bdd W/ thin strks & laminae of gy SS & brn shale. Good dip of 46°; some fractg & slickg thruout core.
#167	4668	4678	11'	SLTST Dk brn, masv, firm, W/ occas 1/4"-1/2" interbeds lightly oil stnd SS (aggreg 6"). Fractg in top 5'. Fair 49° dip. 1-sec gas flash.
#168	4678	4689	10' 7'	SLTST As above, W/ occas 1"-3" strks of oil stnd SS; med brn, masv, fn grnd, easily friable to firm but friable, fairly evenly stnd, Fair glow under light.
			1'6"	OIL SS Med-grn, masv, fn grnd, firm but friable, fairly evenly stnd, W/ amber cut. Gives good glow under light.
			0'6"	SLTST As above.
			1'	OIL SS Med brn, masv, fn grnd, firm but friable, rather weakly stnd. Gives lt amber cut; weak glow under light. Poor 50° dip; occas fractg & slicks.
#169	4689	4699	9'6"	OIL SS Med brn, masv, fn to med grnd, soft, easily friable, W/ 10" SS shell at 3'6" from top. Oil SS is fairly evenly stnd, W/ amber cut & weak odor. Gives weak glow under light. Occas 1" sltst strks as above.
#170	4699	4702	4'6" 1'6"	OIL SD Masv, med to fn grnd, well sorted, loose to friable W/ diff, dk brn at top; gy strks at bottom.
			0'2"	SS SHELL
			1'	OIL SD Lt brn stnd to gy strkd as above. Gives dk brn cut, W/ distillate odor. Seems perm.
#171	4702	4712	2'	SS SHELL
#172	4712	4718	7' 2'	OIL SD Masv, fn grnd, well sorted, <u>gy strkd</u> , easily friable.
			3'	SLTST Dk gy, masv, finely micaceous, slickd; W/ lt amber cut.
			1'	GY SS Med grnd, well sorted, easily friable.
			1'	OIL SD Med brn, masv, fn-med grnd, well sorted, easily friable, seems perm. W/ dk brn cut, distillate odor. Fair dip of 66°.

RECORDED

SEP 11 1948

	FROM	TO	RECOVERY		DESCRIPTION
					LA ANGELES CALIFORNIA
#173	4718	4728	6'	5'	OIL SD Masv, med grnd, well sorted, easily friable grading from 4" of gy at top, to dk brn, evenly stnd, <u>well saturated in bottom 2'</u> ; W/ 5" sltst <u>just above the well saturated sand</u> . No cut to lt amber to dk brn.
				1'	SLTST Gy, masv, sdy, finely micaceous, slickd.
#174	4728	4738	9'		SLTST & SS (90/10), interbdd. Sltst as above; fractd & slickd. Sand is <u>oil stnd to well saturated at top, becoming less stnd and gy at bottom</u> . Fn to med grnd, well sorted, easily friable. W/ slight distillate odor, lt amber cuts. Good dip on dk brn bands, 68°.
#175	4738	4748	10'		SLTST Dk gy-brn, masv as above but occas has dk brn bands of organic shale; platy, well bdd, W/ dips ranging from 53° to 62°, and W/ a minor amount of gy fn grnd SS strks. No cuts or odor. Sand aggreys 5% of core.
#176	4748	4759	10'	5'	SLTST As directly above, W/ occas high-angle slickd fract.
			1'		OIL SD Med brn, med-fn grnd, quite firm but friable W/ diff. <u>Evenly stnd, looks rich, W/ strong oil odor. Gives amber cut.</u> (Core analysis sample).
			1'		SLTST As just above. Contact W/ oil sd gives fair dip of 58°.
			1'		OIL SD As above but not quite as firm. <u>Looks good; gives amber cut and has strong odor.</u>
			2'		SLTST As above, W/ 2" oil sd strks at 1/2' from bottom and at bottom. Both strks same as oil sd above; <u>looks rich, W/ amber cuts & strong odor.</u>
#177	4759	4769	9'	4'	OIL SD Med brn, med-fn grnd, well sorted, appears perm. <u>Evenly stnd, firm but friable W/diff, has strong oil odor & gives amber cuts. Looks rich.</u> Num gas pocs on mud sheath. (Core analysis sample).
			1'6"		SLTST As above, W/ minute lenses & spots of dk brn oil sd thruout.
			4'6"		OIL SD. Same as above; <u>looks rich, W/ amber cuts & strong odor.</u> (Core analysis sample). Core gave a long, slow-burning gas flash when top & bottom of barrel opened. Est. time 12 seconds; burned deep within the barrel.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#178	4769	4779	10' 1'6"	<p>OIL STD SS Med brn, med grnd, hd (unable to break w/ fingers), <u>evenly stnd</u>, has strong oil odor.</p> <p>1'6" OIL SD Med brn, <u>med-fn grnd</u>, soft & easily friable clean, well sorted; appears perm; <u>looks rich</u>, has strong oil odor & gives <u>amber cut</u>. W/ 3" strk sltst at base of this sand.</p> <p>3' OIL SD & GY SD In 3" to 4" strks, gradational, W/ no apparent difference in texture of sd; fn grnd, soft & friable. Amber cuts where oil stnd.</p> <p>4' SLTST As above, W/ occas high-angle fract & slicks W/ minor amount of oil sd as minute lenses or pockets thruout; <u>dk brn</u>, fn grnd, friable, W/ good odor.</p> <p>This core showed considerable gas while unscrewing top connection of core barrel; burned during the time of this operation & for approx 10 seconds after disconnection. The bottom of barrel also showed gas. Core analysis sample taken of hd oil stnd sandstone at top, and of gy sd in middle of core.</p>
#179	4779	4789	8' 5'	<p>SLTST & SS In alternating beds varying from 1" to 1'. Sltst is dk gy, masv, firm, badly fractd in some parts, W/ num high-angle breaks. SS is gy to lt brn, <u>oil stnd</u>, masv, friable, fn grnd, gives lt to dk amber cuts.</p> <p>3' SLTST Lt brn to blk, masv, fractd & slickd as above, W/ few thin (1/4"-1") strks of <u>oil stnd SS</u>. Gives amber cut. W/ 2" hd SS Shell at base of core.</p>
#180	4790	4794	4'	SLTST Dk gy, firm, masv; core is badly mashed & twisted in coring. Has heavy mud cake, making it diff. to tell if all of core is formation. Abund gas bubbles on mud sheath; instant flash.
#181	4794	4804	9'6"	SLTST Mouse-gy to dk gy-brn, occas banded W/ dk brn organic shale strks but usually masv & dense, badly fractd. Dips are high, ranging from 65-70°, & W/ occas small lenses of med brn oil sd thruout (approx 10% of core). Sand is fn grnd to silty, firm but friable; has strong oil odor & gives amber cuts.

RE: Boyle Community 17-1

SEP 11 1948

Core Record R/D

LOS ANGELES, CALIF.

DESCRIPTION

	FROM	TO	RECOVERY		
#182	4804	4812	9'	4'6" 1'	SLTST As directly above, W/ num high-angle fract. OIL SD Med brn, fn grnd, soft, well sorted; appears perm. Evenly stnd; gives dk amber cut. (Core analysis sample).
				3'6"	SLTST As above, W/ scattered minute <u>oil sd</u> lenses in bottom 1'.
#183	4812	4822	9'		SLTST As above, W/ num fract. & W/ occas thin dk brn-organic shale bands indicating dips of 62-65°. W/ 6" of dk gy-brn silty <u>oil sd</u> at top; gives dk amber cut. Soft, easily friable, W/ occas thin (1-2") strk of <u>oil sd</u> thruout core (approx 10%). Core spewed gas from top of barrel while on derrick floor and burned while unscrewing connection.
#184	4822	4832	5'		SLTST As above, W/ occas thin strks & minute lenses of med brn <u>oil sd</u> thruout (approx 10% of core). Amber cut on 2" <u>oil sd</u> strk at bottom. No gas flash at top of barrel, but gas burned at bottom of barrel while unscrewing connection. W/ frags of SS "Shell" in top 6".
#185	4832	4842	10'	1'	OIL SD Med brn, med-fn grnd, firm but easily friable, appears perm. Evenly stnd; W/ good oil odor & dk amber cut.
				3'	OIL SD As directly above, interbdd W/ above sltst in 4"-6" strks.
				2'	OIL SD As above (looks rich), w/ dk amber cuts & strong oil odor.
				4'	SLTST As above, W/ occas 1-2" strks of <u>oil sd</u> as described above. Sltst not fractd as in cores immed. above; masv, W/ no dips apparent. Core showed a good gas flash at top and bottom of barrel. (Core analysis samples at top & middle of core).
#186	4842	4852	10'		SLTST As above, W/ occas 1-3" strks of <u>oil sd</u> as above (approx 10% of core), and W/ minute lenses of lt gy silty sd scattered thruout core; does not appear perm. <u>Oil sd</u> gives dk amber cut; good gas flash at top & btm. of barrel.
#187	4852	4862	10'	1'	OIL SD Med brn, evenly stnd, well saturated, soft, fn grnd, perm; W/ good odor & amber cut.
				6'6"	SLTST Dk gy, firm, W/ thin strks of brn shale & gy SS. Dip 58°.
				0'6"	OIL SD As above.
				1'	SLTST As above.
				1'	OIL SD As above.

RE: Boyle Community 17-1

SEP 11 1948

Core Record R/D

	FROM	TO	RECOVERY	DESCRIPTION
#188	4862	4872	10'	SLTST Dk gy, firm, masv.
			6'-0'6"	OIL SD Lt brn, stnd, soft, fn grnd, mud-shot; W/lt amber cut.
			2'6"	SLTST As above, W/ sev minor strks oil sd as above.
			1'	OIL SD Med brn, evenly stnd, soft, fn grnd, perm, somewhat mud-shot. W/ good odor & amber cut. Gives good glow under light.
#189	4872	4882	10'	OIL SD Med brn, evenly stnd, well saturated, rich looking, soft, fn grnd, perm, W/ good odor & amber cut.
			9'	OIL SD W/ two 5" strks of sltst interbdd. Oil sd is med brn, evenly stnd but very mud-shot; soft, fn grnd, perm. W/ good odor and amber cut to lt amber. Puff flash. Gives good glow under light. (Core analysis sample at 4876').
#190	4882	4892	9'	OIL SD Med brn, evenly stnd, soft, fn grnd, perm; W/ good odor & amber cut.
			6'	SLTST Dk gy, firm, W/ v. thin strks oil sd & some strks of gy SS. Weak odor & straw cut, instant flash. Sltst is mud-shot thruout.
#191	4892	4903	9'	SLTST Brn-gy, masv, firm, W/ thin laminae of fn gy SS.
			2'6"	GY SS Masv, friable, fn grnd, silty, W/ few very thin strks of sltst.
			0'6"	SLTST Brn, masv, firm.
			2'6"	GY SS Oil stnd, masv, friable, W/ num thin (1/8-1") strks of above sltst. Bottom 6" heavily oil stnd, W/ dk amber cut. Sand appears somewhat silty.
			1'	SLTST As above, W/ thin strks of gy SS.
			0'6"	SLTST Brn, masv, firm.
			1'6"	SS Lt brn, W/ few gy spots, friable, masv; W/ dk amber cut, good odor. Instant flash. No dips. Core somewhat fractd near top.
#192	4903	4913	10'	GY SS Occas oil stnd; masv, friable, fn grnd, W/ num thin brn strks. Appears badly shattered; somewhat silty. Gives amber cut.
			3'	SLTST Brn, masv, firm, W/ alternating strks of above gy SS. Sltst occurs in sections from 1"-6" thick. Dip 43°.
			3'	SLTST Lt brn-gy, masv, firm, W/ few v. thin bands of brn sltst and some 1/4" strks of gy SS. Good dip of 42°.

RECORDED
SEP 11 1948

LOS ANGELES, CALIF. TA DESCRIPTION

	FROM	TO	RECOVERY		
#193	4913	4923	8' 6"	SLTST	As above, W/ occas 1-3" strks of lt gy SS; SS is fn grnd, soft & friable (approx 10% of core). W/ occas thin dk brn organic shale laminae, giving excellent dips of 44-45°. No stain or odor.
#194	4923	4933	8'	SLTST	W/ occas thin strks of lt gy SS as directly above (aggreg 10% of core). No oil showings.
#195	4933	4943	10' 5'	SLTST	W/ 3" strk of gy SS at 2' from top, and 8" SS strk at 4' from top. The latter strk is slightly oil stnd near center. Good dips of 47°.
			1'	SS	Lt gy to lt brn oil stnd, med-fn grnd, soft, friable, clean, well sorted, appears perm. W/ two inches med brn oil stnd at top and 1" oil stnd near bottom.
			4'	SLTST	As above, W/ occas 1"-2" strks of gy SS as above, but spottily oil stnd.
#196	4943	4953	11' 10'	SLTST	Gy-gn, masv, firm, W/ occas strk of oil stnd SS (1/2" thick), and W/ occas strks of gy SS. Badly balled in drlg.
			1'	SHELL	Limestone, dk gy-gn, masv.
#197	4953	4963	10' 2'	SLTST	Gy-gn to brn, masv, firm.
			1'	SS	Med gy, masv, easily friable, poorly sorted, fn grnd, silty; W/ low perm.
			2'	SLTST	As above.
			1'	SS	As above.
			1'	SLTST	As above, W/ occas thin strks of interbdd Gy SS.
			1'	SS	As above; no oil stng.
			2'	SLTST	As above. Fair 49° dip.
#198	4963	4973	10'	SLTST	Gy-bn to brn, masv to well bdd, firm, W/ occas strks of silty gy SS 1/2" thick, and W/ occas dk brn organic shale laminae. Good 40° dip.
#199	4973	4983	10' 1'	OIL SS	Dk brn, med grnd, masv, evenly stnd, easily friable, W/ strong odor & dk amber cut. Gives medium glow under light.
			7'	SLTST	As above, W/ good 40° dip.
			2'	OIL SS	Lt brn, fn grnd, easily friable, W/ num 1"-3" strks of sltst (aggreg 50%). Amber cut, fair odor; gives good glow under light. Mud-shot.
#200	4983	4993	10' 6'	SLTST	Dk brn to gy gn, masv, firm, W/ 3" well saturated oil SS at 6" from top, and W/ 4" interbdd gy SS & oil SS at 6" from bottom.

(cont)

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#200	4983	4993 (Cont)	1'	GY SS Masv, easily friable, poorly sorted, silty, fn grnd.
			2'	SLTST As above.
			2'	GY SS Masv, easily friable, med to fn grnd, poorly sorted, W/ low perm. W/ 2" oil stnd strk at 3" from top. Good odor & dk amber cut in this portion. Fair 51° dip.
#201	4993	5003	8'	2' GY SS Masv, friable, med grnd, W/ few dk strks & trace of oil stng. Lt amber cut.
			0'4"	SLTST As above.
			4'2"	SLTST Brn-gy, masv, firm, W/ sev 1/4"-1/2" strks of gy, masv, SS.
			1'6"	SS SHELL Gy, masv, v. hd. faint odor; no dips.
#202	5003	5013	9'	2' SLTST Lt brn, interbdd W/ gy, masv, friable, fn grnd SS (1/8"-2" thick).
			1'	SS SHELL Gy, masv, hd.
			6'	SLTST & GY SS Interbdd as above (1/4"-4" beds). Core badly balled & burned; W/ sulphur odor at btm. No apparent dip.
#203	5013	5024	12'	GY SS & SLTST (50/50) in alternating beds (1/8"-6" thick). Slstst is lt brn, W/ dk brn strks, masv, firm SS is gy, masv, friable. Good 30-32° dips.
#204	5024	5034	9'6"	SLTST Lt brn to brn, masv, firm, interbdd W/ num thin (1/8"-1") strks of fn-med grnd gy SS. Fair 45-50° dips. Instant flash; no cut or odor.
#205	5034	5044	6'6"	0'6" SLTST Brn-gy, firm, poker chip, W/ thin gy SS strk
			5'6"	SLTST Lt brn, well bdd, W/ 1/8" dk brn bands; fm, W/ sev 1" bands of fn gy SS and W/ 2" hd SS Shell at top. Good 39-40° dips.
			0'6"	SS SHELL As above. Instant flash; no cut or odor.
#206	5044	5055	11'	SLTST Lt brn, masv, firm, W/ few scattered 1/4"-1" strks of gy SS. Slightly oil stnd at center of core. Amber cut, good odor. Fair 45° dip.
#207	5055	5066	10'	SLTST As above, interbdd W/ 1/8"-1" strks of gy SS as above. No show. Dips 39-45°.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#208	5066	5076	10'	SLTST & SS (70/30). Sltst is lt brn to brn, masv, firm interbdd w/ 1/8"-1/2" strks of fn grnd, friable gy SS. Sltst varies from 1/8" to 3" beds, w/ num thin dk brn bands. Dips vary from 30-45°. Instant flash; no show. W/ 3" SS Shell at about 6" from bottom of core.
#209	5076	5086	4'6"	SLTST Dk gy, firm, masv, w/ occas thin strks of Gy SS. Poor dip of 30°. No flash.
#210	5086	5096	5'	GY SS Dk gy, masv, firm, fn grnd, silty, w/ occas 1/8" strks of brn shale; slickd. Poor 50° dip. No flash; burned sulphur odor.
#211	5096	5106	10' 2' 8'	SS SHELL SS Med gy, masv, firm, fn grnd, appears perm, interbdd w/ 1/8"-1/4" strks of sltst (aggreg 30%). Burned sulphur odor; no flash. Sltst is dk gy, masv, firm.
#212	5106	5116	9'	SS & SLTST (50/50) interbdd in 1"-2" strks. SS is lt gy, masv to irreg bdd w/ v. thin strks of firm, dk gy sltst; generally masv, w/ occas thin strks of brn shale. Fair 35° dip. Sd is soft, fn grnd, silty, w/ burned sulphur odor. One 2" strk lt brn, weakly stnd sand at 5' from top of core. W/ weak odor & straw cut.
#213	5116	5127	10' 4' 1' 3' 2'	SLTST As above, w/ occas 1"-2" strks of lt gy, friable SS. Fair 35° dips on contacts. SS SHELL Lt gy, fn grnd, hd, well cmtd. SS Lt gy, fn grnd to silty, soft & friable, w/ occas strks of sltst interbdd. Sour, burnt odor. SLTST As above but v. sandy, w/ 2" strk SS near bottom, <u>slightly oil stnd.</u>
#214	5127	5135	7'	SLTST As above but bailed & chewed up in coring. No dips apparent.
#215	5135	5138	4'	SLTST As above. Badly balled up, making it difficult to determine dip. Appears to be about 30°, from a sltst-SS strk contact. W/ occas thin strks & lenses of lt gy SS thruout, & w/ 2" strk at 3' from top <u>slightly oil stnd.</u>

SEP 11 1948

LOS ANGELES, CALIF. DESCRIPTION

	FROM	TO	RECOVERY			
#216	5138	5148	10'	2'6"	SLTST	Dk gy-brn, masv, micaceous, v. sandy. Core not balled up as above, and dips are apparent but variable (30-37°). W/-2" strk of dk brn, fn grnd, soft oil sand at 6" from top of core Gives dk amber cut. W/ occas 1"-2" strks of fn grnd, soft, <u>spottily oil stnd gy sd.</u>
			4'6"		SLTST & SS	Closely interbdd (50/50) in 2"-6" strks. SS is usually gray but occas <u>slightly oil stnd</u> lt brn, W/ weak odor & pale cut. Dips on sltst-SS contact, 38°.
			3'		OIL SD	Lt brn, med-fn grnd, soft & friable, clean & perm, evenly stnd, but has 6" gy strk near top W/ no apparent difference in sand texture) and 1" sltst strk at base of this gy SS strk. Amber cuts.
#217	5148	5158	4'		SANDSTONE	Lt gy, med-fn grnd to med-crse, easily friable, well sorted & appears permeable. No cuts or odor except for 1" strk at top which is <u>lightly oil stnd.</u> W/ 4" sltst strk at 1' from bottom.
#218	5158	5168	8'	6'	SS	Lt gy, med-fn grnd, soft & friable, well sorted, clean, appears permeable. No cut or oil odor.
			2'		SS SHELL	Lt gy, fn grnd, hd, well cmted.
#219	5168	5179	1'6"	1'4"	GY SS	Lt gy, masv, friable, med-fn grnd, clean, well sorted. No odor or cut.
			0'2"		SS SHELL	
#220	5179	5189				No recovery; core barrel did not seat.
#221	5189	5199	10'	4'	SS & SLTST	Closely interbdd (50/50). SS is dk gy, masv friable, fn grnd, silty. Sltst is dk gy, firm, irreg bdd W/ strks of gy sd & brn shale. One fair dip of 39°.
			3'		GY SS	Lt gy, masv, friable, med-fn grnd, appears perm.
			3'		SS & SLTST	Interbdd as above (50/50), W/ one 1" strk of lt brn, <u>weakly stnd SS</u> , giving lt amber cut.
#222	5199	5209	9'	6'	SLTST	W/ two 5" strks of SS interbdd. Sltst is dk gy, firm, W/ occas thin strks of brn organic shale. SS is dk gy, masv, soft, fn grnd, silty. No odor.
			1'6"		GY SS	Lt gy, masv, soft, fn grnd, silty.
			1'6"		SLTST	As above.

SEP 11 1948

	FROM	TO	RECOVERY		DESCRIPTION
			LOS ANGELES, CALIFORNIA		
#223	5209	5219			No recovery; barrel did not seat.
#224	5219	5229			No recovery; barrel did not seat.
#225	5229	5240	9'	7'	SLTST Interbdd W/ 2"-3" strks of gy SS (50/50). 38° dip. Slstst is dk gy, firm, masv. SS is dk gy, masv, friable, fn grnd, silty.
			1'		SS As above.
			1'		SLTST As above.
#226	5240	5250	3'		MUD & SLTST Badly mixed mud, wall cake and mashed-up sltst.
#227	5250	5260	1'		MUD & SLTST As just above.
#228	5260	5270			No recovery; barrel did not seat.
#229	5270	5280			No recovery; barrel did not seat.
#230	5280	5291	10'6"		SLTST Dk gy-brn, masv as above. Dips vary from 38° to 42° on lt banding and contacts W/ SS strks. Interbdd W/ lt gy, occas spottily oil stnd SS strks (aggreg 20% of core); fn grnd to silty, soft & friable. Straw cut; no gas flash.
#231	5291	5301	5'	2'6"	SS SHELL Lt to med bluish-gy, fn grnd, silty, mic, hd, well cmted W/ CaCO ₃ . Has darker bands which suggest 36° dips.
				2'6"	SLTST As above but v. sandy & occas friable by fingers. Dk gy, micaceous sandy strks or laminae interbdd offer good dips of 34-36°. W/ lt gy lenses or spots of SS thruout. No oil stng; no gas flash.
#232	5301	5311	10'	1'	SS Lt gy, friable, fn grnd, perm, W/ occas ir- reg strks of sltst, and W/ med brn <u>even stng</u> in bottom 2".
				1'6"	OSS Lt brn, evenly stnd, friable, med-fn grnd, perm. W/ good odor & lt amber cut.
				4'6"	SLTST Dk gy, firm, well bdd W/ strks of brn shale & dk gy SS. Good 38° dip.
				3'	SS Lt gy, masv, soft, fn grnd, looks perm. W/ one 2" strk <u>oil stnd SS</u> as above. No flash.
#233	5311	5321	5'	0'6"	SLTST As above but broken in coring.
				1'	OSS Grading from <u>weak to even stng</u> , friable, med- fn grnd, perm. W/ amber cut.
				1'6"	SS SHELL Hd, well cmted.
				2'	OSS As above. Free oil on mud sheath. No flash.

SEP 11 1948

	FROM	TO	RECOVERY	DESCRIPTION
#234	5321	5331		No recovery; barrel did not seat.
#235	5331	5336		No recovery; barrel did not seat.
#236	5336	5341	6' 0'6"	SLTST Dk brn, masv, firm, badly balled in drlg.
			2'	SS Lt gy, masv, fn grnd, easily friable, badly mudshot. 1" lightly oil SS at 2" from top.
			2'6"	SLTST As above, W/ occas strks of gy SS interbdd (1/4"-2" thick).
			1'	SS As above; no oil stns.
#237	5341	5343	1'6"	SS Lt gy, masv, firm but friable, fn grnd, fairly well sorted, W/ fair perm. No oil.
#238	5343	5351	0'3"	SS As above.
#239	5351	5356		No recovery.
#240	5356	5363	7' 1'	SLTST & GY SD Sltst & fn grnd gy sd, crushed & mixed W/ mud; frags of oil sd. Good dip of 51°.
			6'	SLTST W/ few strks of soft silty sd.
#241	5363	5373	10'	SLTST W/ occas thin beds of silty sd. Dips 41-45° (good). No CSO.
#242	5373	5383	9'	SLTST Dk brn to gy-grn, masv to well bdd, firm, W/ numerous thin dk brn organic laminae & W/sev 1"-3" strks of gy, easily friable, fn grnd. SS; occas well sorted; appears perm. Good 35° dip. No C.S.O.
#243	5383	5393	10'	SLTST As above, W/ 6" SS strks at 3' from top and bottom of core and occas thin (1/2"-1") strks thruout core (approx 20% of core). SS strks are lt gy, fn grnd to silty, soft, easily friable. No cut or odor.
#244	5393	5403	10'	SLTST As above. Occas beautifully banded W/ dk brn organic laminae, giving dips that range from 34-38°, and W/ 10" SS strk at 6'6" from top of core-med gy, fn grnd to silty, soft. No CSO.
#245	5403	5413	4' 0'6"	SLTST As above.
			3'	MUD Rotary mud intermixed W/ sltst cuttings.
			0'6"	SLTST As above.
#246	5413	5423	10'	SLTST As above, but more masv, W/ infrequent banding. Dips 37°. W/ num 2"-6" strks of lt gy SS (approx 30% of core). Fn grnd, silty, soft. No CSO.

RECEIVED

SEP 11 1948

DESCRIPTION

	FROM	TO	RECOVERY		DESCRIPTION
#247	5423	5433	9'	4'6"	SS Lt gy, med-fn grnd, firm but friable by fingers, well sorted, clean, appears perm. No CSO.
			2'		SS SHELL Lt gy, med grnd, hd, well cmted W/ CaCO ₃ .
			1'		SLTST As above. 36° dip.
			1'6"		SS Med gy, fn grnd to silty, soft & friable. No CSO.
#248	5433	5443	4'6"	1'6"	SS Med gy, as immed. above.
				2'6"	SLTST & SS As above, interbdd (50/50) in 4"-6" strks. Dip 36° on sltst parting (fair).
			1'		ss Shell Lt gy, med-fn grnd, hd, well cmted W/CaCO ₃ .
#249	5443	5453	8'	7'	SLTST Dk gy, firm, interbdd W/ 1"-3" strks of gy sd (30%) and thin strks of brn shale. Good 30° dip.
			1'		SS Lt gy, masv, friable, fn grnd, mud-shot. <u>Very weak stng at bottom.</u> No flash.
#250	5453	5463	7'		SLTST & GY SS (50/50) closely bdd, as above. Dip 34°.
#251	5463	5473	8'	1'6"	SS Dk gy, masv, fn grnd, clean perm.
				1'	SS SHELL
				3'6"	SS As above, W/ sev 1" strks of sltst interbdd. (20% of interval). Fair dip of 30°. No flash.
#252	5473	5483	6'	4'	SLTST Dk gy, firm, mic, W/ thin strks of brn shale & gy SS. Dip 37°.
				1'6"	SS Dk gy, masv, friable, fn grnd.
				0'6"	SS SHELL
#253	5483	5493	7'	2'	SS Dk gy, masv, firm, friable, med-fn grnd, perm.
				3'	SLTST Dk gy, firm, generally masv, W/ some thin laminae of gy SS. Good 38° dip.
				2'	SS As above.
#254	5493	5504	10'6"	1'6"	SLTST As above.
				9'	SS & SLTST As above, closely interbdd. Gy sd is mud-shot.
#255	5504	5514	10'		SLTST Dk brn, firm, well bdd W/ num dk brn shale laminae, and W/ occas 1"-3" strks of gy to brn, fn grnd, soft, easily friable SS. Variable dips of 32-38°.

RE: Boyle Community 17-1

RECORDED

Core Record R/D

SEP 11 1948

DESCRIPTION

LOS ANGELES, CALIFORNIA

	FROM	TO	RECOVERY		
#256	5514	5524	7'	1' 6'	SLTST As above. SS Lt gy, masv, easily friable to firm but friable, med to fn grnd, poorly sorted. 35° dip on SS parting. 1-second flash.
#257	5524	5534	10'		SLTST & SS As above, interbdd (60/40). Poor 43-54° dips.
#258	5534	5544	10'		SLTST Brn to gy, masv, firm, W/ occas 1"-3" strks of lt gy, fn grnd, easily friable SS interbdd. Good 40° dip. Instant flash at btm.
#259	5544	5554	10'		SLTST Brn, firm, well bdd W/ abund dk brn shale laminae, and W/ occas 1"-3" strks of gy SS. Good 35° dip. Instant flash.
#260	5554	5564	11'		SLTST Dk brn, masv, firm, W/ occas 2"-6" strks of gy, fn grnd, easily friable SS. Good 35° dip.
#261	5564	5574	9'	8'6" 0'6"	SLTST & SS As above (70/30). No dip. SS SHELL
#262	5574	5584	9'	6'6" 2'6"	SLTST & SS As above (70/30). No dip. GY SD Med-fn grnd.
#263	5584	5594	7'		SS & SLTST As above (90/10). No dips.
#264	5594	5605	5'	3' 2'	GY SD W/ strks of silt. SS SHELL
#265	5605	5615	1'		SS SHELL
#266	5615	5625	4'6"		GY SS Masv, friable, fn to med grnd, W/ 1/8"-2" strks of sltst. Fair 33° dip.
#267	5625	5636	5'		GY SS Masv, friable, fn-med grnd, W/ few 2" strks of brn sltst. <u>Trace of oil stn.</u> No dip.
#268	5636	5646	7'		SS & SLTST As just above.
#269	5646	5656	7'		SS Lt gy, masv, hd, med grnd, biscuity in part; perm. No cut or odor.
#270	5656	5664	8'		SS Lt gy, masv, soft, fn grnd, perm, W/ 1"-2" strks of sltst (aggreg 10%). Sltst is brn, masv. No dip; no flash.

	FROM	TO	RECOVERY	SEP 11 1948	DESCRIPTION
#271	5664	5674	10'	LOS ANGELES, CALIF.	gy, masv, friable to hd, W/ num gy silty bands causing a poker chip appearance to the core. Top of core most typical. W/ a few 4" bands of dk brn to blk sltst.
#272	5674	5684	8'		SLTST & SS In alternating beds (55/45). SS is gy, masv, W/ silty bands in lower part of core. Sltst is brn, masv, firm, in 1"-6" beds. Good 31° dip.
#273	5684	5695	11'		SLTST & SS As above (60/40), in alternating beds, W/ 4" SS shell in middle of core. Dip 25°.
#274	5695	5705	8'		SS Gy, masv, friable, fn grnd, W/ alternating bands of sltst (1"-4" thick). Sltst is brn masv, firm. W/ 6" SS shell at bottom of core. Instant flash.
#275	5705	5715	10'		SLTST & SS (75/25). Sltst is brn-gy, masv, to poker chip, firm, interbdd W/ fn grnd gy SS, as above.
#276	5715	5725	1'		GY SS As above.
#277	5725	5735	10' 6"		SLTST Brn, masv, firm, well bdd, interbdd W/ strks (1/8" to 4") of gy SS as above. Dips 25°-29°. Instant flash.
#278	5735	5745	10' 1'		GY SS Thin bdd, friable, fn grnd, W/ alternating thin beds of gy sltst.
			9'		SLTST Brn, masv, firm, W/ few 4" beds of above gy SS, and W/ 5" SS shell at bottom of core. Poor 31° dip.
#279	5745	5755	10'		SLTST (80%) interbdd W/ 1"-4" strks of gy SS (20%). Sltst is dk gy, firm, well bedd W/ strks of brn shale. Good 31° dip. SS is dk gy, masv, soft, fn grnd, silty. Top of barrel leaked gas while being opened.
#280	5755	5766	11'		SLTST Dk brn, masv, firm, W/ rare 1"-2" strks of lt gy, easily friable, fn grnd SS, and W/ 1" strk spotty oil stnd SS at 3' from bottom. Pale yellow cut.
#281	5766	5777	11'		SLTST Dk brn, masv, firm, W/ occas 1"-2" strks of lt gy, fn grnd, easily friable SS. Good 31° dip.

RE: Boyle Community 17-1

RECORDED
SEP 11 1948

Core record R/D

	FROM	TO	RECOVERY	DESCRIPTION
#282	5777	5788	9'	SLTST As just above. Poor 28° dip.
#283	5788	5798	4'6" 3'	SLTST & SS (50/50) interbdd in 1"-4" strks. Slst as above. SS is lt gy, easily friable, fn grnd.
			1' 0'6"	SS SHELL Gy-brn, masv, cmtd, silty. SLTST As above. No dips (core badly balled in drlg.)
#284	5798	5808	10'	SLTST W/ sev 1" to 2" strks of gy SS (90/10). Slst is dk gy, firm, masv, W/ occas thin partings of gy SS. Poor dip of 24°. SS is dk gy, masv, fn grnd, silty, soft.
#285	5808	5818	10' 9'	SLTST & SS As above in 1" to 2" strks (80/20). Poor 35° dip.
			1'	SS As above.
#286	5818	5828	10'	SLTST & SS Interbdd in 1"-4" strks (80/20).. Slst is dk gy, firm, banded W/ strks of brn shale & thin laminae of gy SS. SS is as above. Good 35° dip.
#287	5828	5838	3' 1' 2'	SLTST Dk gy, firm, masv, as above. GY SS Lt gy, masv, soft, fn grnd, silty.
#288	5838	5848	7'	SS Lt gy, masv, friable, fn grnd, clean, perm. No flash.
#289	5848	5858	10'	SS (95%), W/ occas 1" strks of sltst (5%). SS is dk gy, masv, friable, fn grnd, silty. Slst is dk gy, firm, W/ some irreg thin strks of brn shale. Poor 22° dip. No flash.
#290	5858	5868	5' 2' 3'	SS SHELL Med gy, masv, calcite cmtd, med grnd. SS Med gy, masv, easily friable, fn to med grnd, mudshot. No CSO.

MAP	MAP	GAGES	BOUND	FORMS	
				114	121

1015 West Olympic Boulevard
Los Angeles 15, California
October 4, 1948

Mr. A. W. Abraham
555 South Flower Street
Los Angeles 13, California

Agent for Richfield Oil Corporation

Dear Sir:

Your report of abandonment of well No. "Boyle Community 17" 1, Sec. 35, T. 1 S., R. 13 W., S. B. B. & M., Los Angeles County, dated August 20, 1948, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this division, which are based on all information filed with it, have been fulfilled.

Yours truly,

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser
Deputy Supervisor *ELB*

cc - Mr. R. D. Bush
Company

es

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
Topo 39 WC JLW			Blanket		2100

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-48474

Los Angeles 15,

Calif.

July 21, 19 48

Mr. Clyde Perry

Long Beach 1,

Calif.

Agent for RICHFIELD OIL CORPORATION

PROSPECT
WELL

SEC. 3606 WELL

DEAR SIR:

"Boyle Community 17"

Operations at your well No. 1

Sec. 35

T. 1 S.

R. 13 W.

S. B. B. & M.,

XXXXX

Field, in

Los Angeles

County, were witnessed by

J. L. White, Inspector

representative of the supervisor,

on July 16, 19 48. There was also present N. L. Bush, Superintendent;

A. Reed, Driller.

Casing Record 13-3/8" cem. 511'; 7" cem. 4788', N. T.,
pulled from 532'. T. D. 5868'. McCullough bridging
plugs 4725', 4465', and 3750'. Plugged with cement
4900'-4775' and 540'-492'.

Junk See report No. T 1-48431,
dated July 13, 1948.

The operations were performed for the purpose of testing the location and hardness of a cement
plug placed from 540' to 492' in the process of abandonment.

The inspector arrived at the well at 2:15 p.m. and Mr. Bush reported:

1. The 7" casing was perforated 4770'-4755', 4695'-4530', 4440'-4415', and 3725'-3615'.
2. McCullough bridging plugs were left in the hole at 4725', 4465', and 3750'.
3. The 7" casing was shot at 532' and was pulled from that depth.
4. On July 16, 1948, 50 sacks of cement was pumped into the hole through 3-1/2" drill pipe hanging at 540'.

THE INSPECTOR NOTED:

1. The cement plug at the reported depth of 492' supported four points of the weight of the drill pipe.
2. The driller's tally showed 492' of drill pipe in the hole.

The test was completed at 2:45 p.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT THE REPORTED DEPTH OF 492' ARE APPROVED.

JLW:OH

cc- Company

B/WW

R. D. BUSH

State Oil and Gas Supervisor

By

E. H. Musser

Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-45312

Los Angeles 15,

Calif.

July 21, 1948

Mr. Clyde Perry

Long Beach 1,

Calif.

Agent for RICHFIELD OIL CORPORATION

**PROSPECT
WELL**

SEC. 3605 WELL

DEAR SIR:

Your proposal to abandon Well No. "Boyle Community 17", 1
Section 35, T. 1 S., R. 13 W., S. E. B. & M., XXXXX Field, Los Angeles County,
dated July 14, 1948, received July 19, 1948, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE:

The 7" casing was perforated 4770-4755', 4695'-4530', 4440'-4415', and 3725'-3615'.
Junk (1st hole) drill pipe, drill collar, reamer, and bit 3070'-4694'.
T. D. (1st hole) 4694', plugged with cement 980-665'.

THE NOTICE STATES:

"The present condition of the well is as follows:

1. Complete casing record.

13 3/8"	54.5#	C	511'
7"	26#	C	4788'

Total Depth: 5868' Plug: 4775' Witnessed and approved by the D.O.G.

2. Last produced.

Date

PROPOSAL:

"The proposed work is as follows:

1. Recover 7" casing from lowest possible depth, but above 3000'.
2. Cap stub of 7" casing w/ 20' cement plug.
3. Plug 531-491', across shoe of 13 3/8" casing, Division of Oil & Gas to witness.
4. Place 25' cement plug at surface, weld steel plate on top of 13 3/8" casing and Abandon hole."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:

1. To witness the location and hardness of cement plug at 491'.
2. To inspect the completed surface cap or plug.

CLB:OH

cc- Company

R. D. BUSH

State Oil and Gas Supervisor

By

E. H. Mussen

Deputy

Blanket bond.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
JUL 19 1948

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin **LOS ANGELES, CALIFORNIA**

Long Beach, Calif. July 14, 19 48

DIVISION OF OIL AND GAS

Los Angeles, Calif.

*Prospect Well
Sec. 3606 Well*

In compliance with Secs. 3228, 3229, 3230, 3231 and 3232, Ch. 93, Stat. 1939, notice is hereby given

that it is our intention to abandon well No. Boyle Comm. #17-1

Sec. 35, T. 1 S, R. 13 W, S.B. B. & M. xxx Field,

Los Angeles County, commencing work on the 14th day

of July, 19 48

The present condition of the well is as follows:

1. Complete casing record.

13 3/8" 54.5# C 511'

7" 26# C 4788'

Total Depth: 5868' Plug: 4775' Witnessed and approved by the D.O.G.

2. Last produced. - Date - Net oil - Gravity - Cut -

The proposed work is as follows:

1. Recover 7" casing from lowest possible depth, but above 3000'.
2. Cap stub of 7" casing w/ 20' cement plug.
3. Plug 531-491', across shoe of 13 3/8" casing, Division of Oil & Gas to witness.
4. Place 25' cement plug at surface, weld steel plate on top of 13 3/8" casing and Abandon hole.

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
		<i>Blanket</i>		<i>Blanket</i>	<i>Blanket</i>

RICHFIELD OIL CORPORATION

(Name of Operator)
By *Clyde Perry* *C.E.*

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-48431

Los Angeles 15, Calif. July 13, 19 48
 Mr. Clyde Perry
 Long Beach 1, Calif.
 Agent for RICHFIELD OIL CORPORATION

PROSPECT
WELL

DEAR SIR: "Boyle Community 17"
 Operations at your well No. 1 Sec. 35, T. 1 S., R. 13 E., S. 3 B. & M.,
 XXX Field, in Los Angeles County, were witnessed by
 N. N. Sampson, Inspector, representative of the supervisor,
 on July 9, 19 48. There was also present N. L. Bush, Drilling foreman
 W. H. Backus, Driller

Casing Record 13-3/8" cem. 511'; 7" cem. 4788', not
 tested; T.D. (2nd hole) 5868', plugged with cement
 4900'-4775'

Junk (1st hole) D.P., D. C.,
 reamer and bit from 4694'-
 3070'; T.D. (1st hole) 4694',
 plugged with cement 980'-665'

The operations were performed for the purpose of testing the location and hardness of a cement
 plug placed from 4900' to 4775', in the process of plugging back.

The inspector arrived at the well at 10:00 a.m. and Mr. Bush reported:

1. A 12-1/4" rotary hole was drilled from 511' to 3446'; a 10-5/8" rotary hole from 3446' to 4450', and an 8-1/2" rotary hole from 4450' to 4694'.
2. The drill pipe twisted off and 1624' of 4" drill pipe, subs, drill collar, reamer and bit were left in the hole from 3070' to 4694'.
3. On April 29, 1948, 260 sacks of cement was pumped into the hole through drill pipe hanging at 980'.
4. The hole was cleaned out to 782' without finding set cement.
5. On May 1, 1948, 150 sacks of cement was pumped into the hole through drill pipe hanging at 580'.
6. The top of the set cement was found at 665'.
7. A removable whipstock was set at 665'.
8. A 12-1/4" rotary hole was drilled from 665' to 3027' and a 10-5/8" rotary hole from 3027' to 4789'.
9. On June 18, 1948, 7" 26 lb. casing was cemented at 4788' with 550 sacks of cement.
10. The top of the cement was found at 4740' and drilled out to 4789'.
11. A 6" rotary hole was drilled from 4789' to 5868'.
12. On July 8, 1948, 35 sacks of cement was pumped into the hole through drill pipe hanging at 4900'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The drillers' tally showed 4775' of 3-1/2" drill pipe in the hole.
2. The drill pipe was lowered until the set cement at a reported depth of 4775' supported 5 points of the weight of the 3-1/2" drill pipe.

The test was completed at 10:20 a.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 4775' ARE APPROVED.

cc - Company

R. D. BUSH

State Oil and Gas Supervisor

NNS:EB 352 6-46 18M
STATE PRINTING OFFICE

By E. H. Musser Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-45160

Los Angeles 15, Calif.

June 22, 19 48

Mr. Clyde Perry

Long Beach 1, Calif.

Agent for RICHFIELD OIL CORPORATION

SEC. 3606 WELL

**PROSPECT
WELL**

DEAR SIR:

Your supplementary proposal to drill Well No. "Boyle Community 17", 1

Section 35, T.1 S., R.13 W., S.B. B. & M., ~~xxxx~~ Field, Los Angeles County,

dated June 16, 1948, received June 18, 1948, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS: The condition of the well is as stated in the notice.

THE NOTICE STATES:

"The new conditions are as follows:

1. 13 3/8" - 54.5# C 511'
2. Drilled and cored 12-1/4" hole to 3446'; 10 5/8" hole to 4450', and 8-1/2" hole to 4694'.
3. Twisted off leaving 1624' - d.p., subs, d.c., reamer and bit in hole.
4. Plugged 980' to 580' w/ 410 sacks cement.
5. Redrilled 12-1/4" hole to 3027'; drilled and cored 10 5/8" hole to 4523' and 8-1/2" hole to 4789'."

PROPOSAL:

"We now propose

1. Open 8-1/2" hole to 10 5/8" 4523' to 4789'.
2. Run and cement 7", 26#, J-55 Smls. Casing at 4789' w/ 500 sacks cement as protective string.
3. Core 6" hole ahead."

DECISION:

THE PROPOSAL IS APPROVED.

CLB:OH

cc- Company

*3
CLB*

R. D. BUSH

State Oil and Gas Supervisor

By

E. H. Musser Deputy

Blanket bond.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED

JUN 18 1948

Supplementary Notice

LOS ANGELES, CALIFORNIA

Long Beach, Calif. June 16, 1948

DIVISION OF OIL AND GAS

Los Angeles, Calif.

Prospect Well
Sec 3606

Our notice to you dated January 27, 1948, stating our intention to

Drill

well No. Boyle Comm. 17-#1

(Drill, deepen, or drill and abandon)

Sec. 35, T. 1 S, R. 13 W, S.B. B. & M. Los Angeles District Field,

Los Angeles

County, must be amended on account of changed or recently

discovered conditions.

The new conditions are as follows:

1. 13 3/8" - 54.5# C 511'.
2. Drilled and cored 12 1/4" hole to 3446'; 10 5/8" hole to 4450', and 8 1/2" hole to 4694'.
3. Twisted off leaving 1624' - d.p., subs, d.c., reamer and bit in hole.
4. Plugged 980' to 580' w/ 410 sacks cement.
5. Redrilled 12 1/4" hole to 3027'; drilled and cored 10 5/8" hole to 4523' and 8 1/2" hole to 4789'.

We now propose

1. Open 8 1/2" hole to 10 5/8" 4523' to 4789'.
2. Run and cement 7", 26#, J-55 Smls. Casing at 4789' w/ 500 sacks cement as protective string.
3. Core 6" hole ahead.

supp to drill

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
			<i>Blanket</i>	<i>M</i>	<i>y</i>

RICHFIELD OIL CORPORATION

(Name of Operator)

By

Clyde Perry

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed **SEC. 3606 WELL**

No. T-1-47911

Los Angeles 15, Calif. March 12, 1948

Mr. Clyde Perry,
Long Beach 1, Calif.
Agent for RICHFIELD OIL CORPORATION**PROSPECT
WELL**

DEAR SIR:

"Boyle Community 17"
Operations at your well No. 1 Sec. 35, T. 1 S., R. 13 W., S.B. B. & M.,
xxxx Field, in Los Angeles County, were witnessed by
N. N. Sampson, Inspector, representative of the supervisor,
on March 10, 1948. There was also present W. H. Backus, Driller,
M. O. Walls, Derrickman.
Casing Record 13-3/8" cem. 511'; T. D. 512'.
Junk xxx

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 11:15 a.m. and Mr. Backus reported:

1. An 18-5/8" rotary hole was drilled from the surface to 512'.
2. On March 8, 1948, 13-3/8", 54.5 lb. casing was cemented at 511' with 425 sacks of cement.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer ram-type control gate for closing in the well with the drill pipe out of the hole.
2. A Hydril blowout preventer for closing around the 4-1/2" drill pipe.
3. The controls for the above equipment were located outside the derrick.
4. A 2" mud fill-up line with a 2" high pressure stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 11:40 a.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

NNS:OH

cc- Company

R. D. BUSH

State Oil and Gas Supervisor

By E. H. Musser Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

SEC. 3606 WELL

No. P 1-44456

Los Angeles 15.

Calif.

January 27, 19 48

Mr. Clyde Perry

Long Beach,

Calif.

Agent for RICHFIELD OIL CORPORATION

PROSPECT
WELL

DEAR SIR:

Your _____ proposal to drill Well No. "Boyle Community 17", 1
 Section 35, T. 1 S., R. 13 W., S. E.B. & M., XXXX Field, Los Angeles County,
 dated Jan. 14, 19 48, received Jan. 16, 19 48, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 283.67 feet easterly along centerline of 6th Street from its intersection with the centerline of Orme Ave., thence 78.44' northerly at 90°.

Elevation of ground above sea level 284.5 feet.

All depth measurements taken from top of Kelley bushing, which is 296 feet above ground.

We estimate that the first productive oil or gas sand should be encountered at a depth of about _____ feet.

This well is to be drilled under Section 3606 of the Public Resources Code as it will be bottomed under property which is unavailable for surface locations."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8"	61#	J-55	500	Cemented

(Balance of program dependent on showings)

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. No derrick shall be constructed or maintained within 150' of any other derrick, then standing, which is owned or maintained by you.
2. The producing interval of this well shall be not less than 75' from the outer boundary of the Boyle Community # 17 lease, and not less than 150' measured horizontally in the same zone from the producing interval of any other well producing or capable of producing oil or gas.
3. A subsurface directional survey shall be made for this well, and a plat of such survey filed within fifteen days of completion.
4. Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
5. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
6. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
7. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
 - (a) To witness a test of each possible water shut-off.
 - (b) To inspect the installed blowout prevention equipment before drilling below 1000'.

NOTE: This approval is given under Sec. 3606 of the Public Resources Code. The proposed bottom-hole location is unavailable because it is under existing surface improvements.

R. D. BUSH

State Oil and Gas Supervisor

CLB:OH

By

E. H. Mussen

Deputy

cc- Company

Blanket bond.

1015 West Olympic Boulevard
Los Angeles 15, California
January 20, 1948.

County Recorder,
Los Angeles County,
220 N. Broadway,
Los Angeles 12, Calif.

Dear Sir:

I enclose a declaration in the form of a letter
which is to be recorded in conformity to Sec. 3608 of the Public
Resources Code.

A copy of Sec. 3608 was sent to you with my letter
of August 1, 1947, which accompanied a similar declaration.

Yours truly,

E. H. Messer

Deputy Supervisor.

EHM:ems

CC - Mr. R. D. Bush
Richfield Oil Corporation

1015 West Olympic Boulevard
Los Angeles 15, California
January 20, 1948.

County Recorder,
Los Angeles County,
Los Angeles, California.

In accordance with the provisions of Section 3608, Chapter 3, Division III of the Public Resources Code of California there are listed herein description of lands deemed to be included in the Boyle Community oil and gas lease of Boyle Royalties Company and Richfield Oil Corporation, recorded in Book 24,812, Page 379, Official Records of Los Angeles County Recorder.

On January 16, 1948, Richfield Oil Corporation filed a notice of intention to drill well No. "Boyle Community 17" 1 and attached thereto a statement of lands, aggregating less than one acre in area, which are to be included in said lease, as required by Sec. 3608.

This statement is as follows:

"STATEMENT PURSUANT TO SECTION 3608 OF THE PUBLIC RESOURCES CODE WITH RESPECT TO LAND AGGREGATING LESS THAN ONE ACRE WHICH IS SURROUNDED BY LANDS WHICH ARE SUBJECT TO ONE OR MORE OIL AND GAS LEASES, EACH OF WHICH EMBRACE MORE THAN ONE ACRE.

"The names of the record owners of land, situate in the County of Los Angeles, State of California, aggregating less than one acre and which is surrounded by one or more oil and gas leases, each embracing one or more acres, and the legal description of said land is as follows:

<u>Record Owner</u>	<u>Legal Description</u>
Consuelo Aguirre	Lot 17, Bowen and Dolton's Boyle Heights Tract as per map recorded in Book 8, Page 38 of Maps, in the office of the County Recorder of Los Angeles County.
Henry H. Ishihara	Lot 19 of said Bowen and Dolton's Boyle Heights Tract.
Ada H. Watts	Lot 23 of said Bowen and Dolton's Boyle Heights Tract.

Record Owner

Legal Description

Jose Carmen Navarro, and
Luisa Galvan Navarro

N. 35' of Lot 1, Humbolt Tract as per map recorded
in Book 4, Page 57 of Maps, in the office of the
County Recorder of Los Angeles County.

E. Gonzales, and Carolina Gonzales

Lot 5 of said Humbolt Tract.

Heirs of Devises of
Antonio Rivera, Deceased

Lots 11 and 12 of said Humbolt Tract.

Willie A. Conner

Lot 20 of said Humbolt Tract.

Ceferino Macias, and
Maura E. Macias

S $\frac{1}{2}$ of Lot 2, Blakes Subdivision as per map
recorded in Book 2, Page 52 of Maps, in the office
of the County Recorder of Los Angeles County.

Clyde Zimmerman

Lot 4 of said Blakes Subdivision.

Jennie A. Dobrenen, and
Mary A. Dobrenen

Lot 5 of said Blakes Subdivision.

Mila Clark

Lot 10 of said Blakes Subdivision.

Margaret E. Zimmerman

Lot 11 of said Blakes Subdivision.

Earl H. Somerville, and
Mary Somerville

Lot 12 of said Blakes Subdivision.

Ramulfo G. Vicks, and
Jennie A. Vicks

Lot 2, Tract 2116 as per map recorded in Book 21,
Page 180 of Maps, in the office of the County
Recorder of Los Angeles County.

Ramulfo G. Vicks, and
Jennie A. Vicks

N. 25' of Lot 3 of said Tract 2116.

Rodolfo Zubiate, and
Josefa C. Zubiate

Lot 5 of said Tract 2116.

Agapito Yniguez

Lot 9 of said Tract 2116.

Raymond H. Molina, and
Paula A. Molina

Lot 5, Tract 796 as per map recorded in Book 16,
Page 16, of Maps, in the office of the County
Recorder of Los Angeles County.

Celia Flores Saldana, and
Mercedes F. Martinez

Lot 8 of said Tract 796.

Nathon Naftolin, and
Jean Naftolin

NE 178.71' of NW 50' of Lot 2, S. A. Widney Tract
as per map recorded in Book 15, Page 24 of
Miscellaneous Records of said Recorder.

Henry D. Rudisill

NE 53.71' of Lot 6 of said S. A. Widney Tract.

Marian Duck Hee Whang

Lot 16 of said S. A. Widney Tract.

Record Owner

Legal Description

Pearl Cary Mellena, as
Trustee under will of
Thomas Edward Tarble Cary, Deceased.

Lot 15, Joseph Hyans Subdivision of Lot 9 of
Workman and Hellmans Subdivision in the City
of Los Angeles as per Map recorded in Book 21,
Page 60 of Miscellaneous Records, in the office
of the County Recorder of Los Angeles County.

Maria Lopez

Lot 21 of said Joseph Hyans Subdivision of
Lot 9 of Workman and Hellmans Subdivision in
the City of Los Angeles as per Map recorded
in Book 21, Page 60 of Miscellaneous Records
of said Recorder.

David L. Roess

Lot 23 of said Joseph Hyans Subdivision of
Lot 9 of Workman and Hellmans Subdivision.

Ernest Demousset

Lot 12, Block C, Thompson and Schock Tract
as per map recorded in Book 3, Page 74 of
Maps of Said Recorder.

Frank R. Medel, and Sarah G.
Medel, and Refugio R. Medel

Lot 14, Block C, of said Thompson and
Schock Tract.

Guadalupe Pelagio

Lot 5, Block C, of said Thompson and
Schock Tract.

John Pina

Lot 6, Block C, of said Thompson and
Schock Tract.

Jesua Rocha

Lots 9 and 10, Block B, of said Thompson
and Schock Tract.

Carrie Pickett, Carrie Oliver,
Jessie Paullin, Willie Brockmeier,
Charles Brockmeier, Harry Brockmeier,
Grace Heath, Frances Brockmeier, also
known as Helen Frances Brockmeier,
C. C. Ehrenhart, Anna Riley, and
Lillian Armstrong.

Lot 11, Block B, of said Thompson and
Schock Tract.

John S. Van Alstine, and
Beatrice Van Alstine

Lot 13, Block B, of said Thompson and
Schock Tract.

Henry K. Miyake, also
known as Kirchiro Miyake

Lot 15, Block B, of said Thompson and
Schock Tract.

I. W. Lowder, and
Nettie Lowder

Lot 5, Block B, of said Thompson and
Schock Tract.

Huntington Land and Improvement
Company, a corporation.

Lot 3, Block B, of said Thompson and
Schock Tract.

"The name of the lessee of the oil and gas lease surrounding the foregoing land or having the longest common boundary with the foregoing land is Boyle Royalties Company, a California Corporation, and said oil and gas lease is recorded in Book 24912, Page 379 of Official Records of the County Recorder of Los Angeles County, State of California.

"An undivided one-half ($\frac{1}{2}$) interest in and to said oil and gas lease was, on the 5th day of January, 1948, assigned to Richfield Oil Corporation, a Delaware corporation, by an instrument recorded on the 5th day of January, 1948, as Document Number 1300 in the office of the County Recorder of Los Angeles County, California.

Now therefore I hereby declare that the lands described above are deemed to be included in the Boyle Community lease cited above, for the purpose and to the extent provided by said Section 3608.

R. D. BUSH.
State Oil and Gas Supervisor

By E. H. Musser
Deputy Supervisor.

037-05151

DIVISION OF OIL AND GAS
RECEIVED

JAN 16 1948

Atlantic Richfield
Co.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

LOS ANGELES, CALIFORNIA

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins

Los Angeles Calif. January 14, 1948

DIVISION OF OIL AND GAS

Los Angeles Calif.

"Boyle - Community" 17-1

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Boyle Community 17-No. 1" Sec. 35, T. 1 S. R. 13 W, S.B. B. & M., Field, Los Angeles County.

Lease consists of easterly along centerline of 6th Street from its intersection with the
The well is 283.67 feet N. or S., and feet E. or W. from centerline of Orme Ave., thence 78.44' (Give location in distance from section corners or other corners of legal subdivision) northerly at 90°.
Elevation of ground above sea level 284.5 feet.
All depth measurements taken from top of Kelley bushing, which is 296 feet above ground.

We estimate that the first productive oil or gas sand should be encountered at a depth of about feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8"	61#	J-55	500	Cemented
(Balance of program dependent on showings)				

Well is to be drilled with rotary tools.

PLEASE DESIGNATE THIS A PROSPECT WELL.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

MAP MAP BOOK CARDS BOND FORMS
114 121
Topo 1-22-48
W.C. Ends Blanket

Address 555 South Flower

RICHFIELD OIL CORPORATION

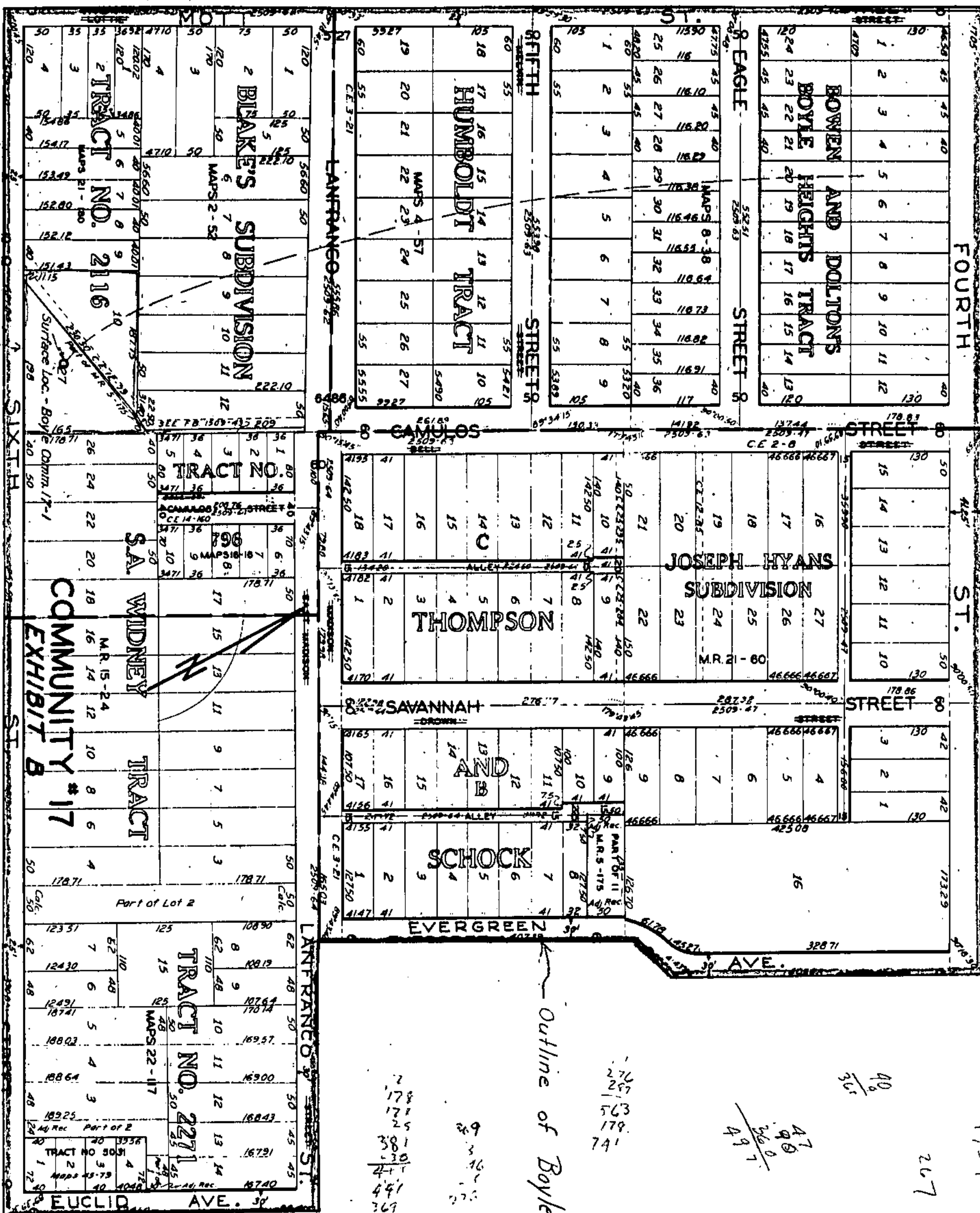
(Name of Operator)

Telephone number Trinity 2231

By A. W. ABRAHAM

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

This well is to be drilled under Section 3606 of the Public Resources Code as it will be bottomed under property which is unavailable for surface locations.



RECEIVED
JAN 22 1943
LOS ANGELES, CALIF.

STATEMENT PURSUANT TO SECTION 3608 OF THE PUBLIC RESOURCES CODE
WITH RESPECT TO LAND AGGREGATING LESS THAN ONE ACRE WHICH IS SURROUNDED
BY LANDS WHICH ARE SUBJECT TO ONE OR MORE OIL AND GAS LEASES, EACH OF
WHICH EMBRACE MORE THAN ONE ACRE.

The names of the record owners of land, situate in the County of
Los Angeles, State of California, aggregating less than one acre and
which is surrounded by one or more oil and gas leases, each embracing
one or more acres, and the legal description of said land is as follows:

Record Owner	Legal Description	
Gonzales Aguirre	Lot 17	Brown and Bolton's Boyle Brights Tract as per map recorded in Book 8, Page 38 of Maps, in the office of the County Recorder of Los Angeles County.
Henry D. Ishihara	Lot 19	" "
Ada E. Watts	Lot 23	" "
Jose Carmen Navarro, and Luiza Galvan Navarro	N 35' of Lot 1	Budnitz Tract as per map recorded in Book 4, Page 57 of Maps of said Recorder.
E. Gonzalez, and Carolina Gonzalez	Lot 5	" "
Heirs of Deceased of Antonio Rivera, Deceased	Lots 11 & 12	" "
Willie A. Ganser	Lot 20	" "
Celestine Masias, and Maura E. Masias	S 1/2 of Lot 2	Blakes Subdivision as per map recorded in Book 2, Page 52 of Maps of said Recorder.
Clyde Zimmerman	Lot 4	" "
Jennie A. Dohrenan, and Mary A. Dohrenan	Lot 5	" "
Wila Clark	Lot 10	" "
Margaret E. Zimmerman	Lot 11	" "
Earl E. Sonerville, and Mary Sonerville	Lot 12	" "

Record Owner

Legal Description

Ramulfo G. Vicksen, and Jennie A. Vicksen	Lot 2	Tract 2114 as per map recorded in Book 21, Page 180 of Maps of said Recorder.
Ramulfo G. Vicksen, and Jennie A. Vicksen	N 15' of Lot 3	" "
Rodolfo Rubiste, and Josefa G. Rubiste	Lot 5	" "
Agapito Imiguen	Lot 9	" "
Raymond H. Molina, and Paula A. Molina	Lot 5	Tract 796 as per map recorded in Book 16, Page 16, of Maps of said Recorder.
Celia Flores Saldana, and Mercedes P. Martinez	Lot 8	" "
Nathan Hattolin, and Jean Hattolin	NE 178.71' of NW 30' of Lot 2	S. A. Sidney Tract as per map recorded in Book 15, Page 24 of Miscellaneous Records of said Recorder.
Henry D. Radicill	NE 53.71' of Lot 6	" "
Marion Buck Roe Zhang	Lot 16	" "
Fewel Gary Hallama, as Trustee under will of Thomas Edward Tertle Gary, Deceased	Lot 15	Joseph Hyman Subdivision of Lot 9 of Workman and Hallama Subdivision in the City of Los Angeles as per Map recorded in Book 21, Page 60 of Miscellaneous Records of said Recorder.
Marin Lopez	Lot 21	" "
David L. Reese	Lot 23	" "
Ernest Demersuet	Lot 12 Block C	Thompson and Schock Tract as per map recorded in Book 3, Page 74 of Maps of said Recorder.
Frank E. Medel, and Sarah G. Medel, and Rafajio R. Medel	Lot 14 Block C	" "
Guadalupe Palagin	Lot 5 Block C	" "
John Finn	Lot 6 Block C	" "
Jesus Rocha	Lots 9 & 10 Block B	" "
Carrie Pickett, Carrie Oliver, Jessie Paulin, Willie Brockmeyer, Charles Brockmeyer, Harry Brockmeyer, Grace Smith, Frances Brockmeyer, also known as Helen Frances Brockmeyer, C. C. Hershart, Anna Riley, and Lillian Armstrong.	Lot 11 Block B	" "

Record Owner

Legal Description

John S. Van Alstine, and
Beatrice Van Alstine

Lot 13 Block B

Thompson and Schock Trust
as per map recorded in Book 3,
Page 74 of Maps of said Recorder.

Henry K. Miyake, also
known as Hirohito Miyake

Lot 15 Block B

" "

I. W. Lawler, and
Nellie Lawler

Lot 5 Block B

" "

Huntington Land and
Improvement Company, a
corporation.

Lot 3 Block B

" "

The name of the lessor of the oil and gas lease surrounding the
foregoing land or having the longest common boundary with the foregoing
land is Boyle Royalties Company, a California Corporation, and said oil
and gas lease is recorded in Book 2412, Page 379 of Official Records of
the County Recorder of Los Angeles County, State of California.

An undivided one-half ($\frac{1}{2}$) interest in and to said oil and gas lease
was, on the 5th day of January, 1948, assigned to Richfield Oil Corporation,
a Delaware corporation, by an instrument recorded on the 5th day of
January, 1948, as Document Number 1300 in the office of the County Recorder
of Los Angeles County, California.

Dated January 12th, 1948.

BOYLE ROYALTIES COMPANY

By

H. J. Jones
President

By

Robert L. J. J. J.
Secretary

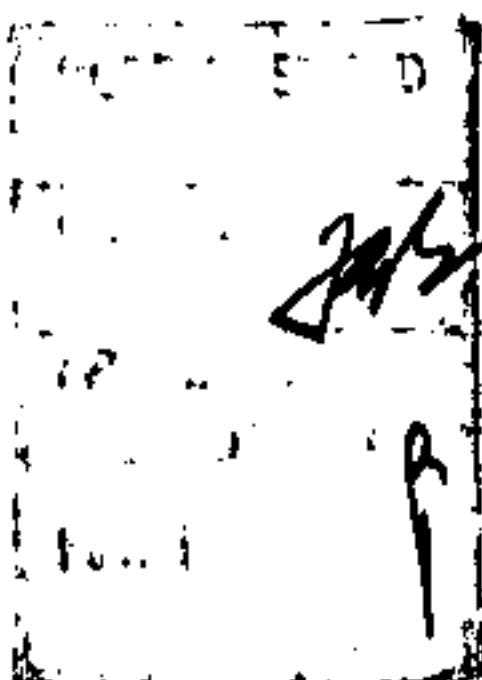
RICHFIELD OIL CORPORATION

By

J. P. Phillips

By

Gene R. Bennett
Secretary



RECORDED
JAN 15 1948
J. P. Phillips

RECORDED

APPENDIX C
FIELD WORK NOTICE



Los Angeles Unified School District

Office of Environmental Health and Safety

WORK NOTICE

ROOSEVELT HIGH SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

456 South Mathews Street, Los Angeles

The Los Angeles Unified School District (LAUSD) will be implementing a Preliminary Environmental Assessment (PEA) at the Roosevelt High School in Los Angeles, California. The purpose of the PEA is to determine if recognized environmental concerns identified during the Phase I Environmental Site Assessment would pose a potential health risk to current or future occupants. LAUSD voluntarily conducts environmental reviews for construction and improvement projects at its existing schools.

A licensed environmental professional, working on behalf of LAUSD, will perform the environmental investigation under the oversight of the LAUSD Office of Environmental Health and Safety. The environmental investigation will consist of sampling shallow soils and soil gas for potential contaminants in the vicinity of the existing and proposed buildings. If necessary, a cleanup will be performed or mitigation measures installed. Fieldwork is scheduled to occur during October and November 2016.

Results of the environmental investigation will be included in a PEA Report that will be made available for public review as part of the California Environmental Quality Act documentation for the project. The PEA Report will include an assessment of whether contaminants are present in soil or soil gas at concentrations that would require further investigation or a response action.

For more information regarding these activities, please contact:

Andrew Fowler
Project Manager
Office of Environmental Health and Safety
Los Angeles Unified School District
(213) 241-4672
andrew.fowler@lausd.net

Si desea información en Español, por favor comuníquese con el: Sr. Fortunato Tapia (213) 241-1338



Los Angeles Unified School District

Oficina de Salud y Seguridad Ambiental

AVISO DE TRABAJO

ROOSEVELT HIGH SCHOOL PROYECTO DE UNA AMPLIA MODERNIZACIÓN 456 South Mathews Street, Los Angeles

El Distrito Escolar Unificado de Los Ángeles (Los Angeles Unified School District, LAUSD) va a implementar una Evaluación Ambiental Preliminar (PEA) en la Escuela Roosevelt High School en Los Ángeles, California. El objetivo de esta evaluación es determinar si reconocidos problemas ambientales, que fueron identificados durante la Evaluación Ambiental del Sitio (Fase 1), presentarían un potencial riesgo de salud a los ocupantes actuales o futuros. LAUSD realiza voluntariamente revisiones ambientales para proyectos de construcción y de mejoras en sus escuelas existentes.

Un profesional ambiental acreditado, trabajando en representación de LAUSD, va a realizar la investigación ambiental bajo la supervisión de la Oficina de Salud y Seguridad Ambiental de LAUSD (LAUSD Office of Environmental Health and Safety). La investigación ambiental va a consistir en coleccionar muestras de tierra del subsuelo y gases del suelo para identificar posibles contaminantes en las proximidades de los edificios existentes y propuestos. Si es necesario, se llevará a cabo una limpieza o se pondrán medidas de mitigación. El trabajo sobre el terreno está programado para hacerse en octubre y noviembre de 2016.

Los resultados de la investigación ambiental serán incluidos en el reporte de la evaluación ambiental preliminar (PEA) que estará disponible para la revisión pública como parte de la documentación del proyecto de la Leyes de Calidad Ambiental de California (California Environmental Quality Act). El reporte PEA va a incluir una evaluación con respecto a ver si hay contaminantes presentes en el subsuelo o en los gases del suelo con concentraciones que tuvieran que requerir una investigación más a fondo o una acción de respuesta.

Para obtener más información respecto a estas actividades, por favor contactar a:

Andrew Fowler

Project Manager (Gerente de Proyecto)

Office of Environmental Health and Safety (Oficina de Salud y Seguridad Ambiental)

Los Angeles Unified School District (El Distrito Escolar Unificado de Los Angeles)

(213) 241-4672

andrew.fowler@lausd.net

Si desea información en Español, por favor comuníquese con el: Sr. Fortunato Tapia (213) 241-1338

APPENDIX D
GEOPHYSICAL SURVEY REPORTS



October 10, 2016

Project/Invoice No. 16-469

TRC

9685 Research Drive
Irvine, California 92618

Attn: John Nordenstam

Re: Geophysical Investigation Report, Roosevelt High School, 456 S Mathews St, Los Angeles, California.

This report is to present the results of our geophysical survey carried out over portions of Roosevelt High School located at 456 South Mathews Street in Los Angeles, California (Figure 1). The survey was performed on October 3, 2016, and its purpose was to locate and identify, insofar as possible, pipes, conduits, utilities, and other underground obstructions within the immediate vicinity of thirty-one (31) proposed boreholes.

A combination of electromagnetic induction (EM), magnetometry, and ground penetrating radar (GPR) were brought to the field in anticipation of use. Utility locators with line tracing capabilities were also used where applicable.

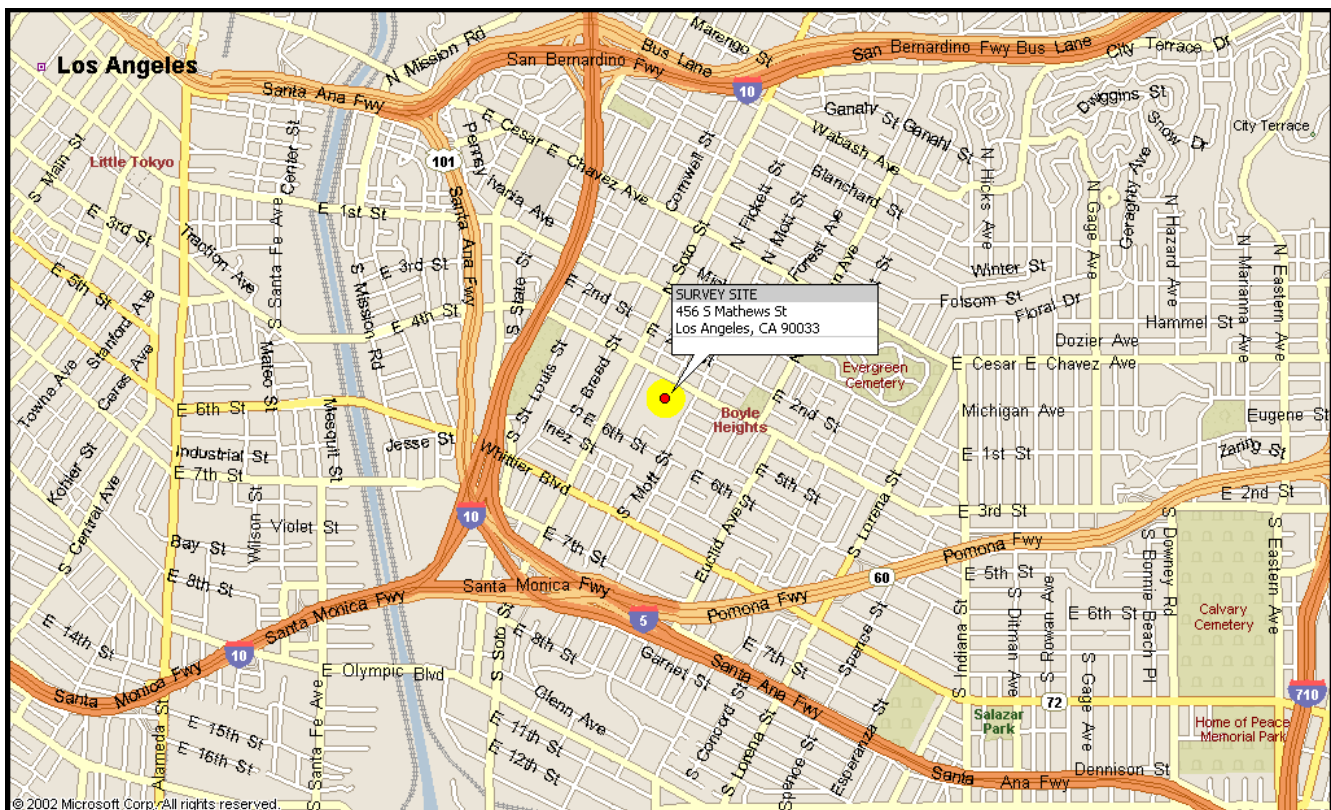


FIGURE 1. Site location map.

Survey Design – The thirty-one proposed boreholes were all within the school property and were dispersed throughout nearly all portions of the campus.

For this particular site and survey objectives, the best use of time was achieved by systematically free-traversing with the instruments while monitoring them manually, continuously, and in real-time to determine which responses were significant and due to true subsurface targets, and which were due to other non-target or above-ground features and must be ignored (examples being rebar-reinforced concrete, nearby building walls, and overhead canopies). In these situations, the free-traversing method is advantageous in that it allows for immediate detection of anomalous objects and facilitates the opportunity to investigate them further despite any obstructions and without the need to first download data. Where applicable, and depending on location, the EM devices, magnetic gradiometer, and GPR were traversed systematically over the survey areas in multiple, organized directions. Other traverses were taken for detailing and confirmation where anomalous conditions were found.

In addition, the line tracers were used to impress signals onto pipes, generally through accessible risers and tracer wires when present, to delineate the lines' locations and orientations. The instruments were also used in passive mode, configured to detect 60 Hz electrical signals and other common radio-frequency signals found in active electrical and communication lines.

A Geonic's model EM61 and a Fischer TW-6 M-Scope was used for the EM sampling. A Sensors & Software Noggin Ground Penetrating Radar unit with a 500 MHz antenna produced the radar images. The magnetic gradiometer was a Schonstedt GA-52, and a Metrotech 9890 and RIDGID SR-60 SeekTech utility locator rounded out the tools applied.

Brief Description of the Geophysical Methods Applied – The EM61 instrument is a high resolution, time-domain device for detecting buried conductive objects. It consists of a powerful transmitter that generates a pulsed primary magnetic field when its coils are energized, which induces eddy currents in nearby conductive objects. The decay of the eddy currents, following the input pulse, is measured by the coils, which in turn serve as receiver coils. The decay rate is measured for two coils, mounted concentrically, one above the other. By making the measurements at a relatively long time interval (measured in milliseconds) after termination of the primary pulse, the response is nearly independent of the electrical conductivity of the ground. Thus, the instrument is a super-sensitive metal detector. Due to its unique coil arrangement, the response curve is a single well-defined positive peak directly over a buried conductive object. This facilitates quick and accurate location of targets.

The M-Scope device energizes the ground by producing an alternating primary magnetic field with AC current in a transmitting coil. If conducting materials are within the area of influence of the primary field, AC eddy currents are induced to flow in the conductors. A receiving coil senses the secondary magnetic field produced by these eddy currents, and outputs the response as anomalous conditions. The strength of the secondary field is a function of the conductivity of the object, say a pipe, tank or cluster of drums, its size, and its depth and position relative to the instrument's two coils. Conductive objects, to a depth of approximately 7 feet below ground surface (bgs) for the M-Scope are sensed. The device is also somewhat focused; that is, it is more sensitive to conductors below the instrument than they are to conductors off to the side.

The GPR instrument beams energy into the ground from its transducer/antenna, in the form of electromagnetic waves. A portion of this energy is reflected back to the antenna at a boundary in the

subsurface across which there is an electrical contrast. The instrument produces a continuous record of the reflected energy as the antenna is traversed across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The radar wave travels at a velocity unique to the material properties of the ground being investigated, and when these velocities are known, the two-way travel times can be converted to depth. The depth of penetration and image resolution produced are a function of ground electrical conductivity and dielectric constant.

The magnetic gradiometer has two flux gate magnetic fixed sensors that are passed closely to and over the ground. When not in close proximity to a magnetic object, that is, only in the earth's field, the instrument emits a sound signal at a low frequency. When the instrument passes over a buried iron or steel object, so that locally there is a high magnetic gradient, the frequency of the emitted sound increases. The frequency is a function of the gradient between the two sensors.

The line locator is used to passively detect energized high voltage electric lines and electrical conduit (50-60 Hz), VLF signals (14-22 kHz), as well as to actively trace other utilities. Where risers are present, the utility locator transmitter can be connected directly to the object, and a signal (9.8-82 kHz) is sent traveling along the conductor, pipe, conduit, etc. In the absence of a riser, the transmitter can be used to impress an input signal on the utility by induction. In either case, the receiver unit is tuned to the input signal, and is used to actively trace the signal along the pipe's surface projection.

Interpretation and Conclusions - The interpretation took place in real time as the survey progressed, and accordingly, the findings of our investigation were marked on the ground cover at the site using spray chalk, reported to the client, and are further documented with site photographs of all areas investigated (Figures 2-27). Note that the figures are ordered according to TRC's borehole labeling scheme.

Detected items in the vicinity of the boreholes were marked on site, and are additionally highlighted in the accompanying graphics, using red for electric and signal communications, blue for water and sprinkler irrigation, green for wastewater, light yellow for gas, dark yellow for hydraulic conduit, and white for lines of unknown utility type. Please review the site photographs for the locations and orientations of all items found within the vicinity of the boreholes.

At the conclusion of the survey, all boreholes were positioned in order to provide adequate clearance from detected obstructions. In their final locations, they were marked in white with a yellow "SSS" to indicate that each had been checked by company personnel. Borehole within dirt or grass areas were marked with a white arrow painted onto the nearest asphalt, pointing towards the borehole, with the distance in feet to the borehole additionally indicated.

Limitations and Further Recommendations - It should be understood that limitations inherent in geophysical instruments and/or surveying techniques exist at all sites, and nearly all sites exhibit conditions under which such might not perform optimally. Consequently, the detection of buried objects in all circumstances **cannot be guaranteed**. Such limitations are numerous and include, but are not limited to, rebar-reinforced ground cover, abrupt changes in ground cover type, above-ground obstacles preventing full traverses or traverses in one direction only, above-ground conductive objects interfering with instrument signal, nearby powerlines or EM transmitters, highly conductive background soil conditions, limited GPR penetration, non-metallic targets, shallower or larger objects shielding deeper or smaller targets, tracing signal jumping from one line to another, and inaccessible risers, cleanouts, valve boxes, and manholes. If one or more geophysical instrument is rendered ineffective and cannot be utilized, the quality of the survey

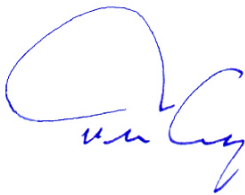
can be somewhat degraded.

For the above reasons, and in the interest of maximum safety, we encourage our clients to take advantage of Underground Service Alert (USA), Dig Alert, or other similar services, when possible. Furthermore, we recommend hand-auguring and the use of a drilling method known as air knifing or vacuum extraction, when feasible or if applicable to this project. These methods may significantly limit damage to underground pipes, conduits, and utilities that might not have been detectable during the course of this survey. Please bear in mind, that geophysical surveying is only one of several levels of protection that is available to our clients.

SubSurface Surveys may include maps in some reports. While they are an accurate general representation of the site and our findings, they are not of engineering quality (i.e., measured and mapped by a licensed land surveyor).

SubSurface Surveys and Associates makes no guarantee either expressed or implied regarding the accuracy of the findings and interpretations present. And, in no event will SubSurface Surveys and Associates be liable for any direct, indirect, special, incidental, or consequential damages resulting from interpretations and opinions presented herewith.

All data generated on this project are in confidential file in this office, and are available for review by authorized persons at any time. The opportunity to participate in this investigation is very much appreciated. Please call, if there are questions.



Travis Crosby
CA State Geophysics Registration GP1044
Senior Geophysicist, SubSurface Surveys

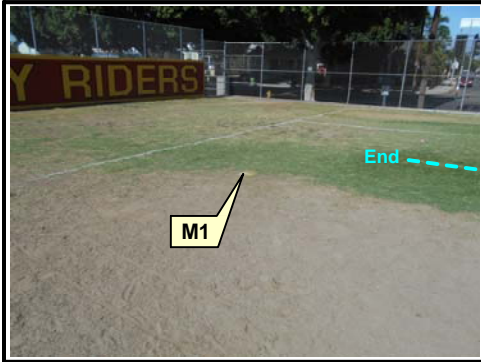


Figure 2

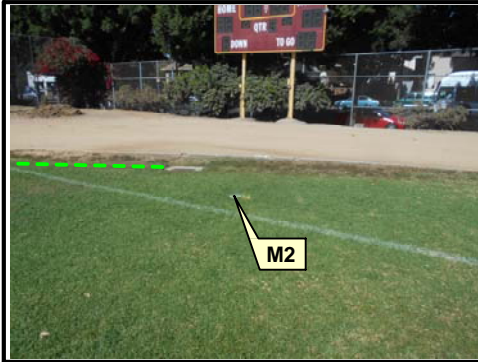


Figure 3



Figure 4



Figure 5

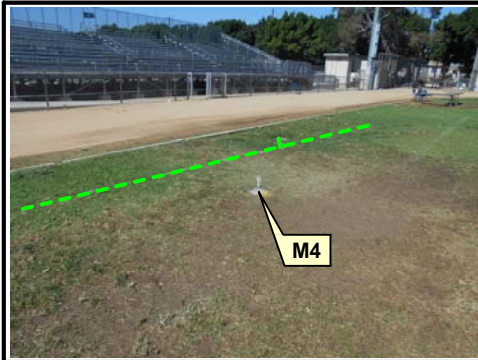


Figure 6



Figure 7



Figure 8



Figure 9



Figure 10

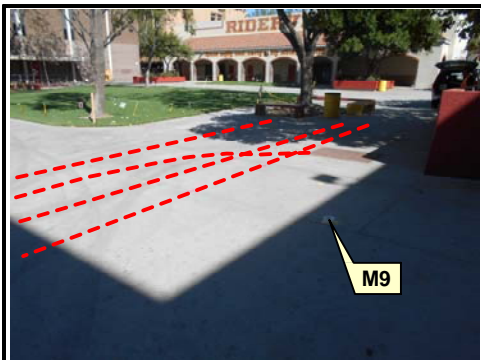


Figure 11

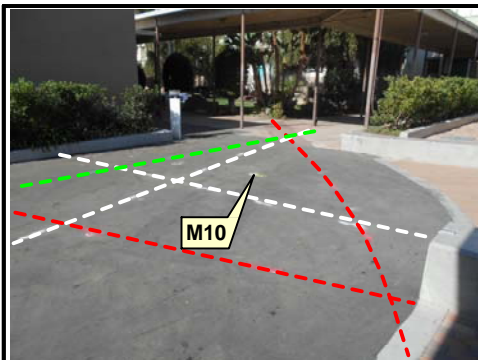


Figure 12

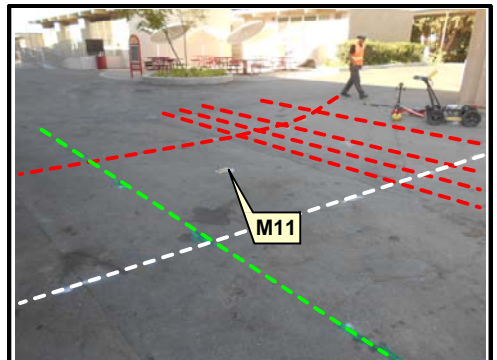


Figure 13



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs
PREPARED FOR:
TRC

SURVEY DATE:
October 3, 2016
SSS PROJECT NO:
16-469

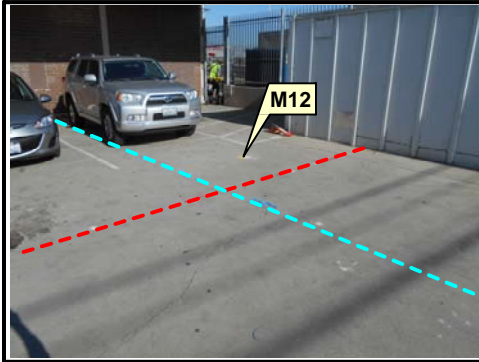


Figure 14

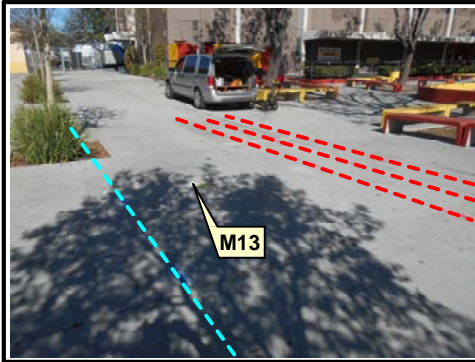


Figure 15

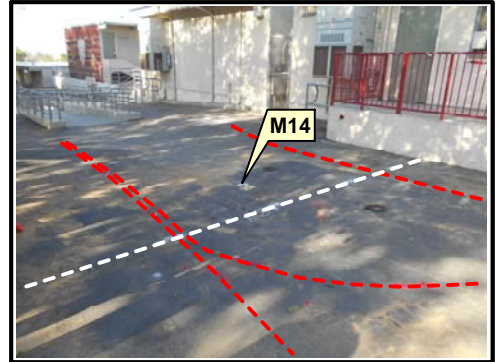


Figure 16

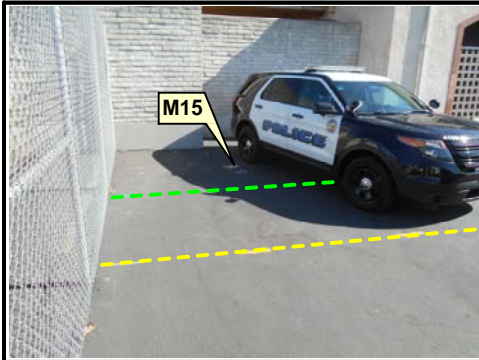


Figure 17

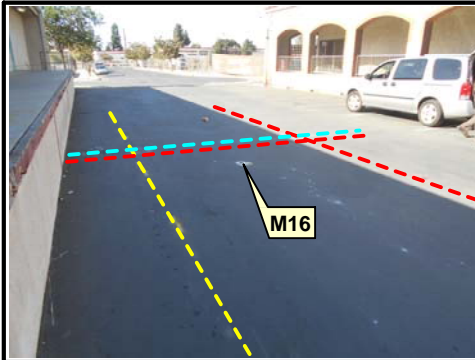


Figure 18

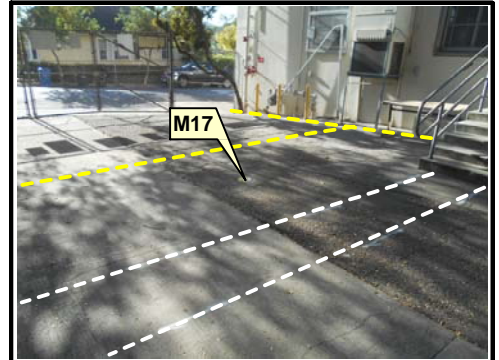


Figure 19



Figure 20



Figure 21

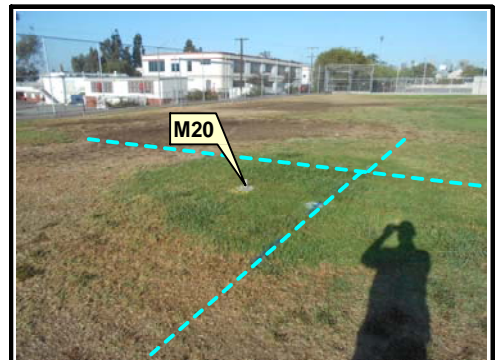


Figure 22

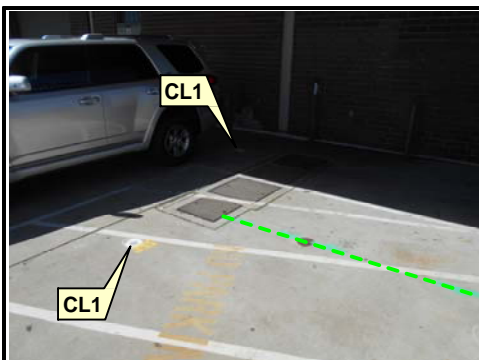


Figure 23

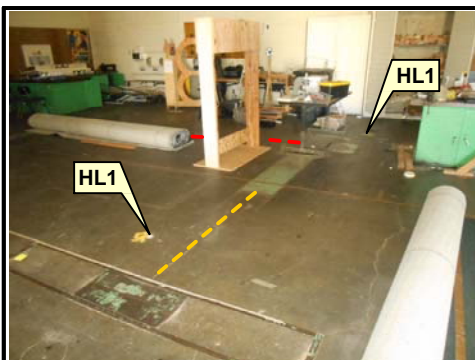


Figure 24



Figure 25



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs
PREPARED FOR:
TRC

SURVEY DATE:
October 3, 2016
SSS PROJECT NO:
16-469

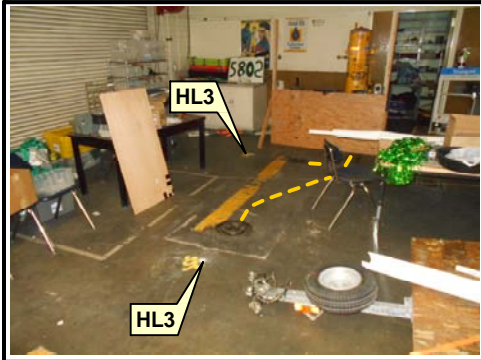


Figure 26

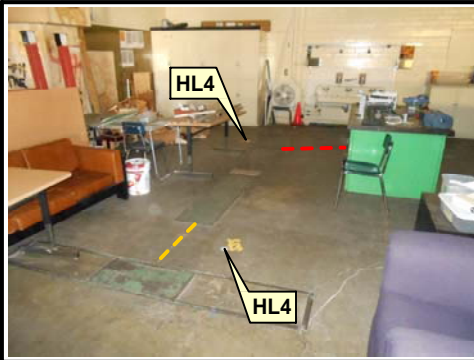
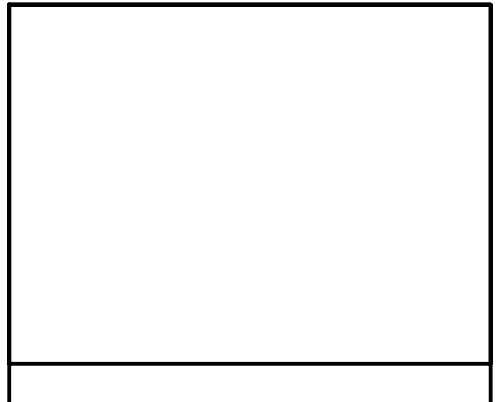
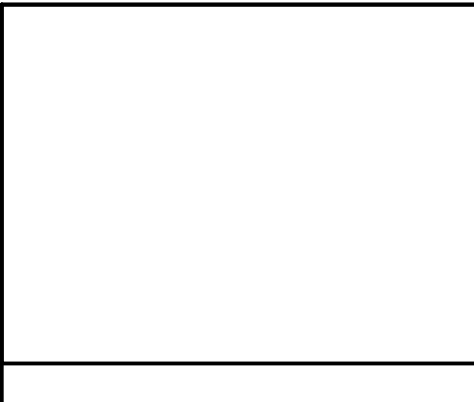
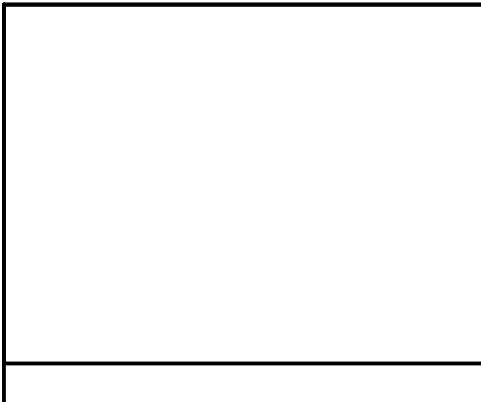


Figure 27



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs

PREPARED FOR:
TRC

SURVEY DATE:
October 3, 2016

SSS PROJECT NO:
16-469



April 7, 2017

Project/Invoice No. 17-124

TRC

9685 Research Drive
Irvine, California 92618

Attn: John Nordenstam

Re: 2nd Geophysical Investigation Report, Roosevelt High School, 456 S Mathews St, Los Angeles, California.

This report is to present the results of our second geophysical survey carried out over portions of Roosevelt High School located at 456 South Mathews Street in Los Angeles, California (Figure 1). The survey was performed on March 25-26, 2017, and its purpose was to locate and identify, insofar as possible, pipes, conduits, utilities, and other underground obstructions within the immediate vicinity of fifty-two (52) proposed boreholes.

Note that this project is a continuation of earlier work performed at this location on October 3, 2016 for which the results were submitted to TRC in a report dated October 10, 2016 (SSS Project 16-469). The reader may be referred to this earlier document for additional information regarding this earlier phase of work.

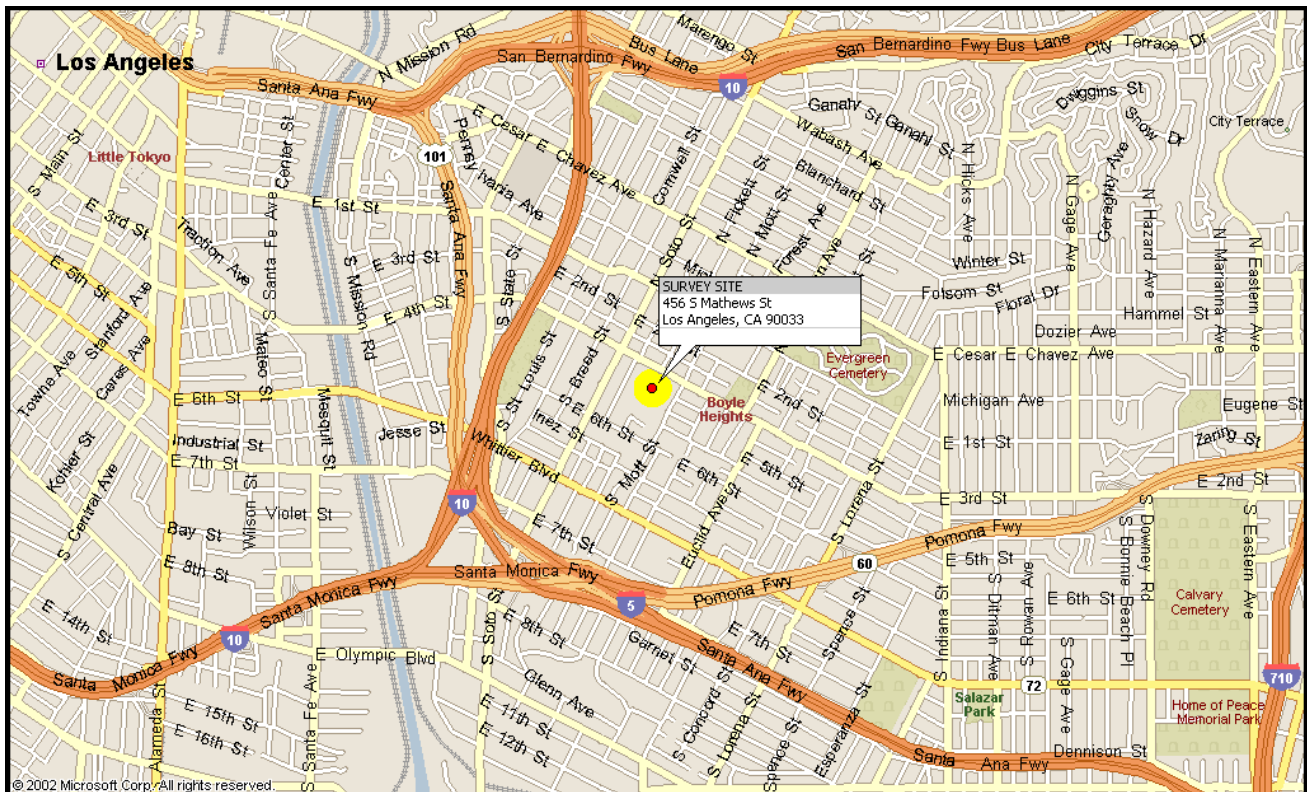


FIGURE 1. Site location map.

A combination of electromagnetic induction (EM), magnetometry, and ground penetrating radar (GPR) were brought to the field in anticipation of use. Utility locators with line tracing capabilities were also used where applicable.

Survey Design – The fifty-two proposed boreholes were all within the school property and were dispersed throughout nearly all portions of the campus, but mostly within its eastern-most half. TRC, for their own purposes, has divided the campus into sections and labeled them Areas 1-9. The boreholes investigated during this survey were located in Areas 2, 3, 5, 6, and 9.

For this particular site and survey objectives, the best use of time was achieved by systematically free-traversing with the instruments while monitoring them manually, continuously, and in real-time to determine which responses were significant and due to true subsurface targets, and which were due to other non-target or above-ground features and must be ignored (examples being rebar-reinforced concrete, nearby building walls, and overhead canopies). In these situations, the free-traversing method is advantageous in that it allows for immediate detection of anomalous objects and facilitates the opportunity to investigate them further despite any obstructions and without the need to first download data. Where applicable, and depending on location, the EM devices, magnetic gradiometer, and GPR were traversed systematically over the survey areas in multiple, organized directions. Other traverses were taken for detailing and confirmation where anomalous conditions were found.

In addition, the line tracers were used to impress signals onto pipes, generally through accessible risers and tracer wires when present, to delineate the lines' locations and orientations. The instruments were also used in passive mode, configured to detect 60 Hz electrical signals and other common radio-frequency signals found in active electrical and communication lines.

A Geonic's model EM61 and a Fischer TW-6 M-Scope was used for the EM sampling. A Sensors & Software Noggin Ground Penetrating Radar unit with a 500 MHz antenna produced the radar images. The magnetic gradiometer was a Schonstedt GA-52, and a Metrotech 9890 and RIDGID SR-60 SeekTech utility locator rounded out the tools applied.

Brief Description of the Geophysical Methods Applied – The EM61 instrument is a high resolution, time-domain device for detecting buried conductive objects. It consists of a powerful transmitter that generates a pulsed primary magnetic field when its coils are energized, which induces eddy currents in nearby conductive objects. The decay of the eddy currents, following the input pulse, is measured by the coils, which in turn serve as receiver coils. The decay rate is measured for two coils, mounted concentrically, one above the other. By making the measurements at a relatively long time interval (measured in milliseconds) after termination of the primary pulse, the response is nearly independent of the electrical conductivity of the ground. Thus, the instrument is a super-sensitive metal detector. Due to its unique coil arrangement, the response curve is a single well-defined positive peak directly over a buried conductive object. This facilitates quick and accurate location of targets.

The M-Scope device energizes the ground by producing an alternating primary magnetic field with AC current in a transmitting coil. If conducting materials are within the area of influence of the primary field, AC eddy currents are induced to flow in the conductors. A receiving coil senses the secondary magnetic field produced by these eddy currents, and outputs the response as anomalous conditions. The strength of the secondary field is a function of the conductivity of the object, say a pipe, tank or cluster of drums, its size, and its depth and position relative to the instrument's two coils. Conductive objects, to a depth of

approximately 7 feet below ground surface (bgs) for the M-Scope are sensed. The device is also somewhat focused; that is, it is more sensitive to conductors below the instrument than they are to conductors off to the side.

The GPR instrument beams energy into the ground from its transducer/antenna, in the form of electromagnetic waves. A portion of this energy is reflected back to the antenna at a boundary in the subsurface across which there is an electrical contrast. The instrument produces a continuous record of the reflected energy as the antenna is traversed across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The radar wave travels at a velocity unique to the material properties of the ground being investigated, and when these velocities are known, the two-way travel times can be converted to depth. The depth of penetration and image resolution produced are a function of ground electrical conductivity and dielectric constant.

The magnetic gradiometer has two flux gate magnetic fixed sensors that are passed closely to and over the ground. When not in close proximity to a magnetic object, that is, only in the earth's field, the instrument emits a sound signal at a low frequency. When the instrument passes over a buried iron or steel object, so that locally there is a high magnetic gradient, the frequency of the emitted sound increases. The frequency is a function of the gradient between the two sensors.

The line locator is used to passively detect energized high voltage electric lines and electrical conduit (50-60 Hz), VLF signals (14-22 kHz), as well as to actively trace other utilities. Where risers are present, the utility locator transmitter can be connected directly to the object, and a signal (9.8-82 kHz) is sent traveling along the conductor, pipe, conduit, etc. In the absence of a riser, the transmitter can be used to impress an input signal on the utility by induction. In either case, the receiver unit is tuned to the input signal, and is used to actively trace the signal along the pipe's surface projection.

Interpretation and Conclusions - The interpretation took place in real time as the survey progressed, and accordingly, the findings of our investigation were marked on the ground cover at the site using temporary spray chalk, reported to the client, and are further documented with site photographs of all areas investigated, grouped according to the TRC's area number in which they were located in (Figures 2-42).

Detected items in the vicinity of the boreholes were marked on site, and are additionally highlighted in the accompanying graphics, using red for electric and possible signal communications, orange for confirmed signal communications, blue for water and sprinkler irrigation, green for wastewater, yellow for gas, and white for lines of unknown utility type. Please review the site photographs for the locations and orientations of all items found within the vicinity of the boreholes.

At the conclusion of the survey, all boreholes were positioned in order to provide adequate clearance from detected obstructions. In their final locations, they were marked in pink with a yellow "SSS" to indicate that each had been checked by company personnel. Boreholes within dirt or grass areas were additionally marked with a pink flag.

Limitations and Further Recommendations - It should be understood that limitations inherent in geophysical instruments and/or surveying techniques exist at all sites, and nearly all sites exhibit conditions under which such might not perform optimally. Consequently, the detection of buried objects in all circumstances **cannot be guaranteed**. Such limitations are numerous and include, but are not limited to, rebar-reinforced ground cover, abrupt changes in ground cover type, above-ground obstacles preventing full

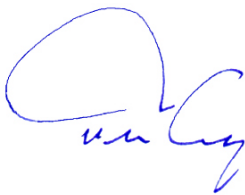
traverses or traverses in one direction only, above-ground conductive objects interfering with instrument signal, nearby powerlines or EM transmitters, highly conductive background soil conditions, limited GPR penetration, non-metallic targets, shallower or larger objects shielding deeper or smaller targets, tracing signal jumping from one line to another, and inaccessible risers, cleanouts, valve boxes, and manholes. If one or more geophysical instrument is rendered ineffective and cannot be utilized, the quality of the survey can be somewhat degraded.

For the above reasons, and in the interest of maximum safety, we encourage our clients to take advantage of Underground Service Alert (USA), Dig Alert, or other similar services, when possible. Furthermore, we recommend hand-auguring and the use of a drilling method known as air knifing or vacuum extraction, when feasible or if applicable to this project. These methods may significantly limit damage to underground pipes, conduits, and utilities that might not have been detectable during the course of this survey. Please bear in mind, that geophysical surveying is only one of several levels of protection that is available to our clients.

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Travis Crosby
CA State Geophysics Registration GP1044
Senior Geophysicist, SubSurface Surveys



Figure 2

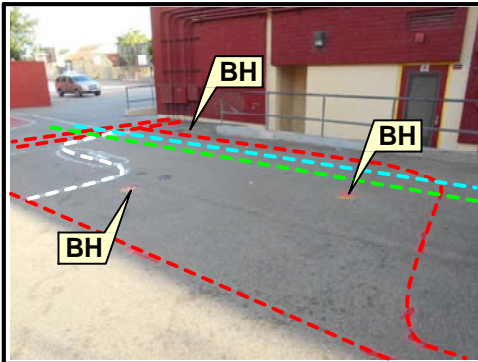


Figure 3



Figure 4



Figure 5

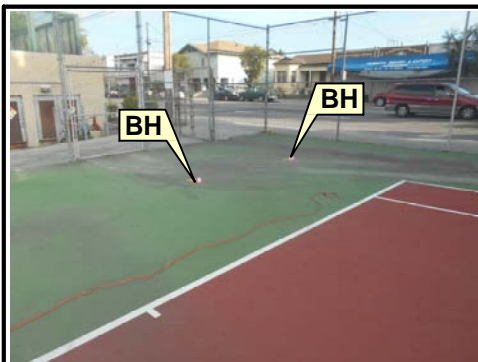


Figure 6



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 2
PREPARED FOR:
TRC

SURVEY DATE:
March 25-26, 2017
SSS PROJECT NO:
17-124

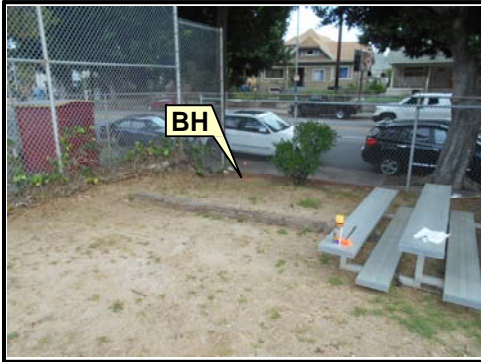


Figure 7

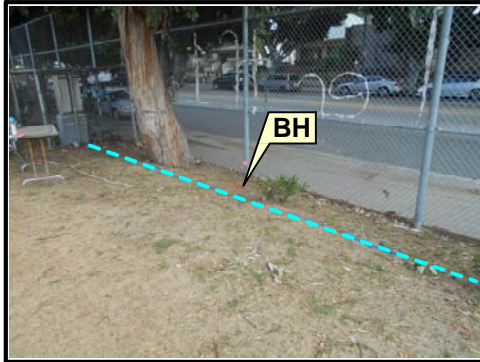


Figure 8

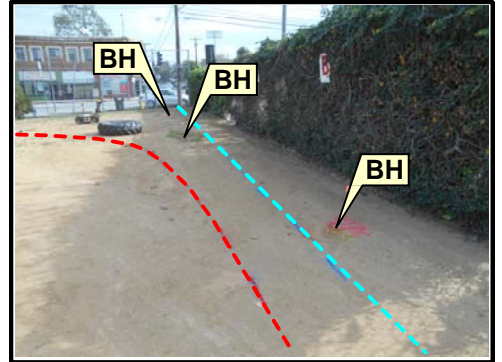
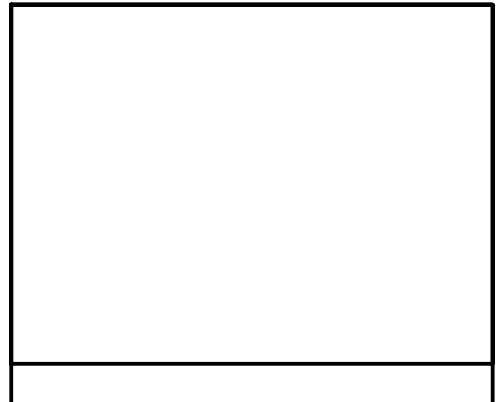
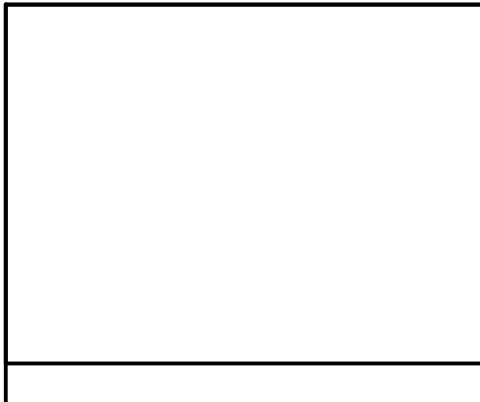
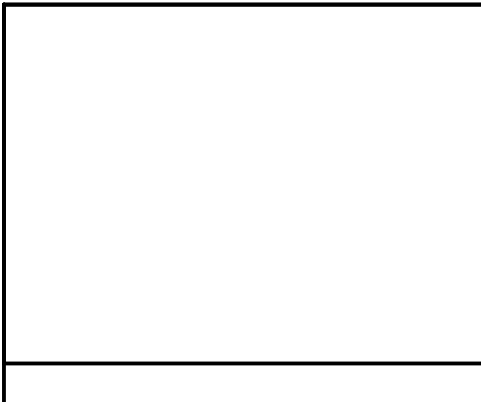


Figure 9



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 3
PREPARED FOR:
TRC

SURVEY DATE:
March 25-26, 2017
SSS PROJECT NO:
17-124

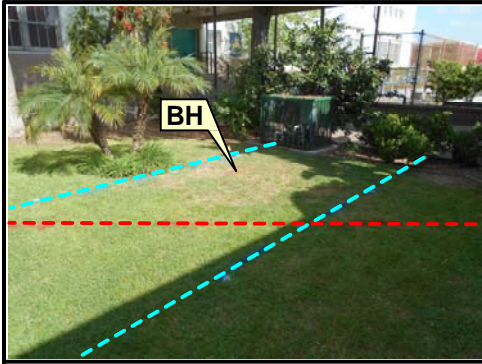


Figure 10



Figure 11

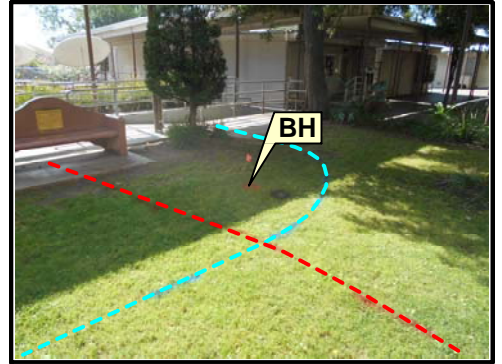


Figure 12

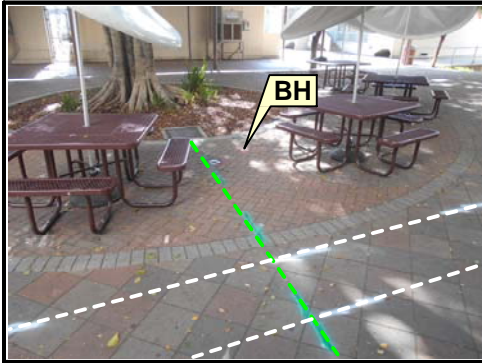
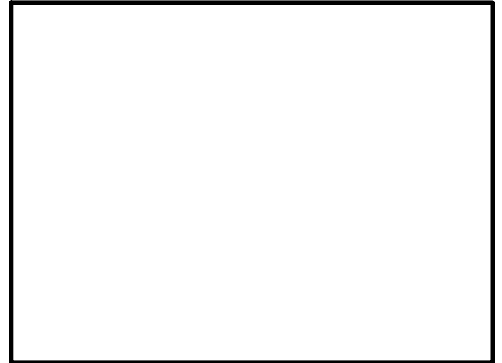
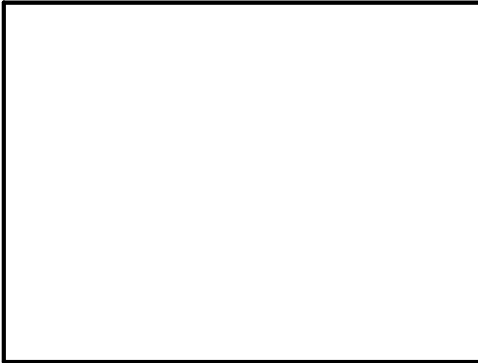


Figure 13



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 5
PREPARED FOR:
TRC

SURVEY DATE:
March 25-26, 2017
SSS PROJECT NO:
17-124

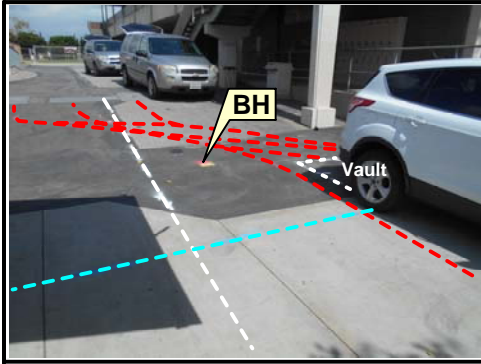


Figure 14

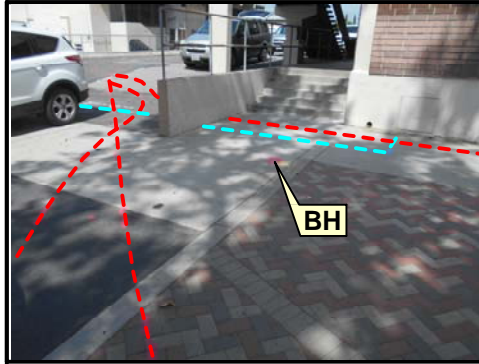


Figure 15

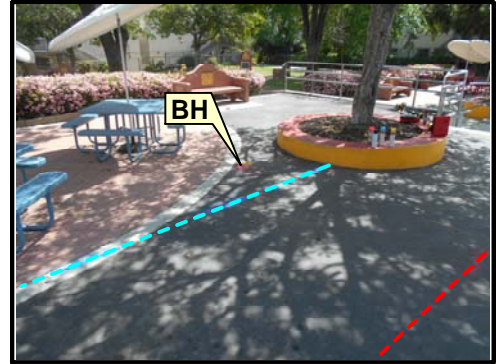


Figure 16

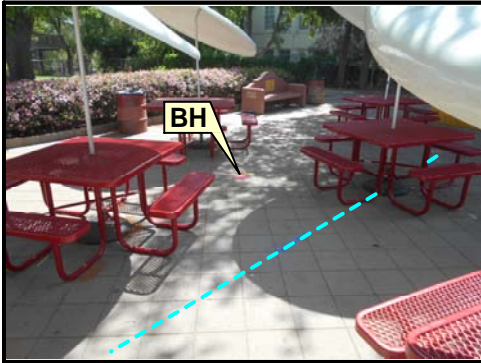


Figure 17

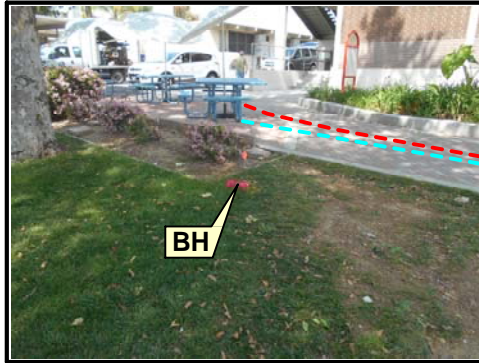


Figure 18

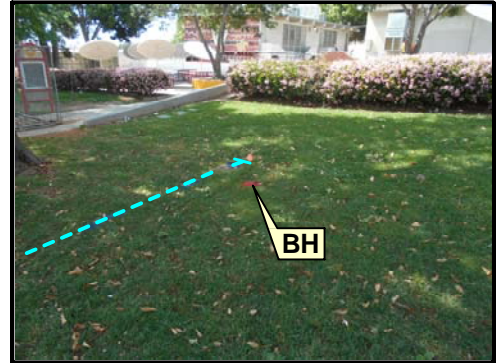


Figure 19



Figure 20

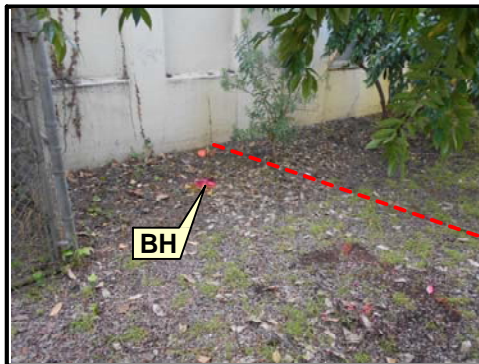


Figure 21



Figure 22

Photograph not available
of borehole north of
baseball field and adjacent
to building

Figure 23

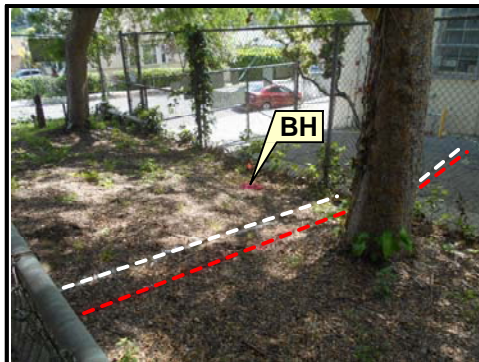


Figure 24

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SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 6
PREPARED FOR:
TRC

SURVEY DATE:
March 25-26, 2017
SSS PROJECT NO:
17-124



Figure 25



Figure 26

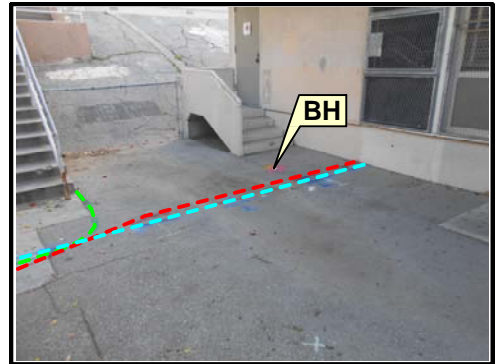


Figure 27

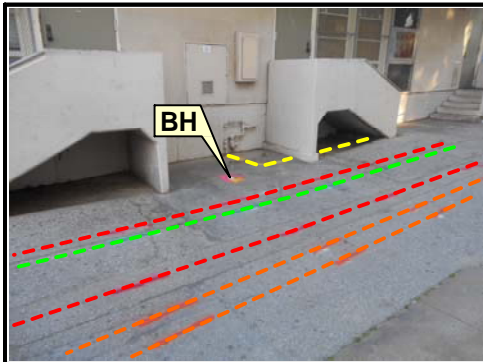


Figure 28

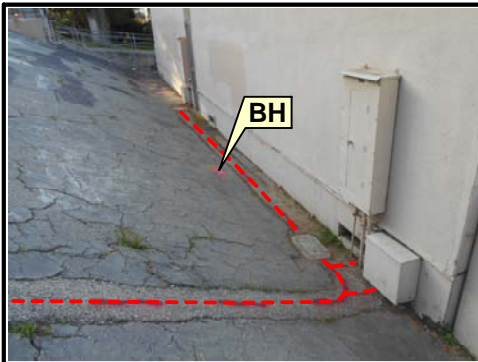


Figure 29

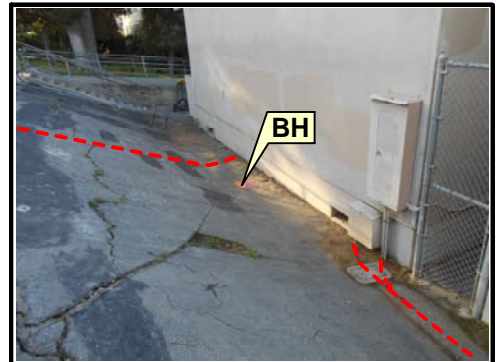


Figure 30



Figure 31

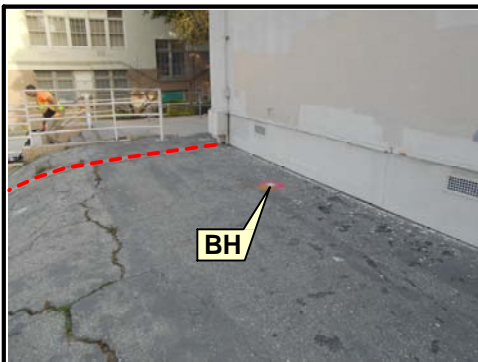


Figure 32

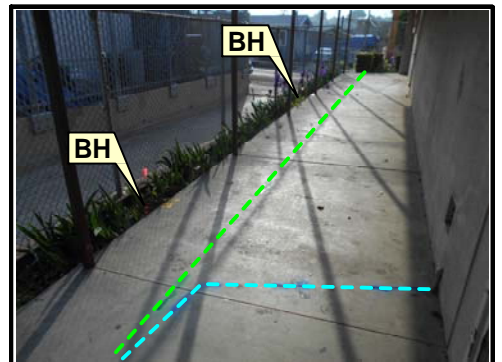


Figure 33

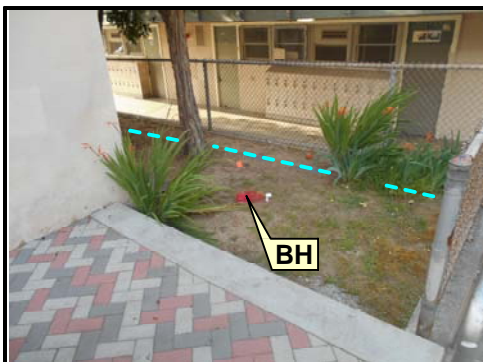


Figure 34



Figure 35

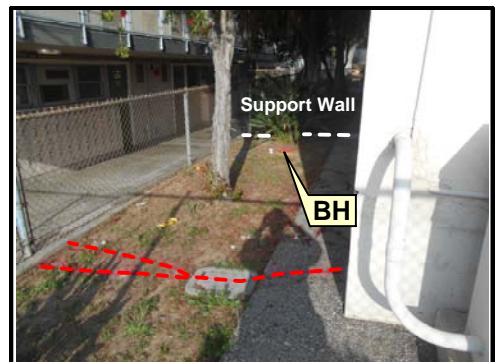


Figure 36



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 6
PREPARED FOR:
TRC

SURVEY DATE:
March 25-26, 2017
SSS PROJECT NO:
17-124

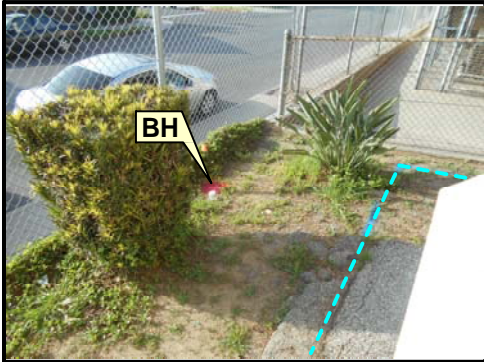
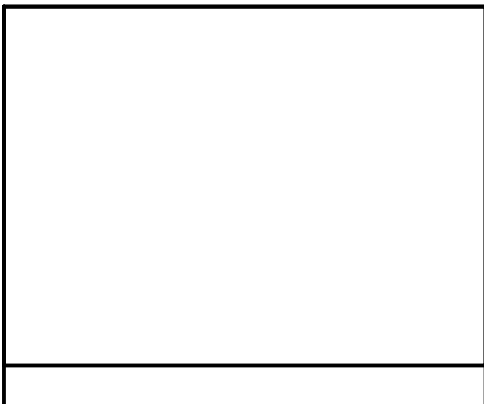


Figure 37



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 6
PREPARED FOR:
TRC

SURVEY DATE:
March 25-26, 2017
SSS PROJECT NO:
17-124



Figure 38



Figure 39

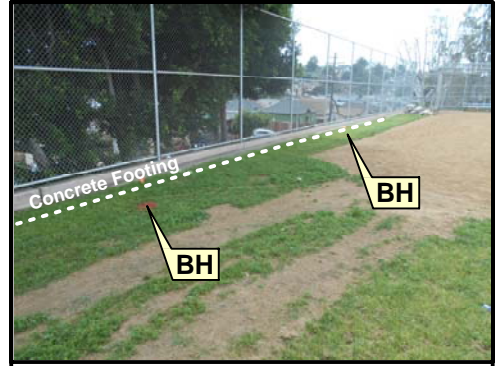


Figure 40

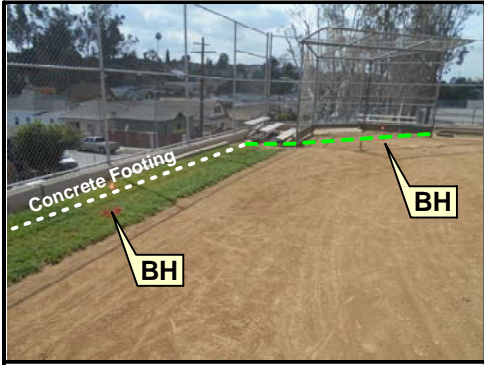


Figure 41



Figure 42



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 9
PREPARED FOR:
TRC

SURVEY DATE:
March 25-26, 2017
SSS PROJECT NO:
17-124



June 14, 2017

Project/Invoice No. 17-124B

TRC

9685 Research Drive
Irvine, California 92618

Attn: John Nordenstam

Re: 3rd Geophysical Investigation Report, Roosevelt High School, 456 S Mathews St, Los Angeles, California.

This report is to present the results of our third geophysical survey carried out over portions of Roosevelt High School located at 456 South Mathews Street in Los Angeles, California (Figure 1). The survey was performed on June 14, 2017, and its purpose was to locate and identify, insofar as possible, pipes, conduits, utilities, and other underground obstructions within the immediate vicinity of fourteen (14) proposed boreholes.

Note that this project is a continuation of two earlier surveys performed at this location on October 3, 2016 and March 25-26, 2017 for which the results were submitted to TRC in two reports dated October 10, 2016 (SSS Project 16-469) and April 7, 2017 (SSS Project 17-124). The reader may be referred to these earlier documents for additional information regarding the total project.

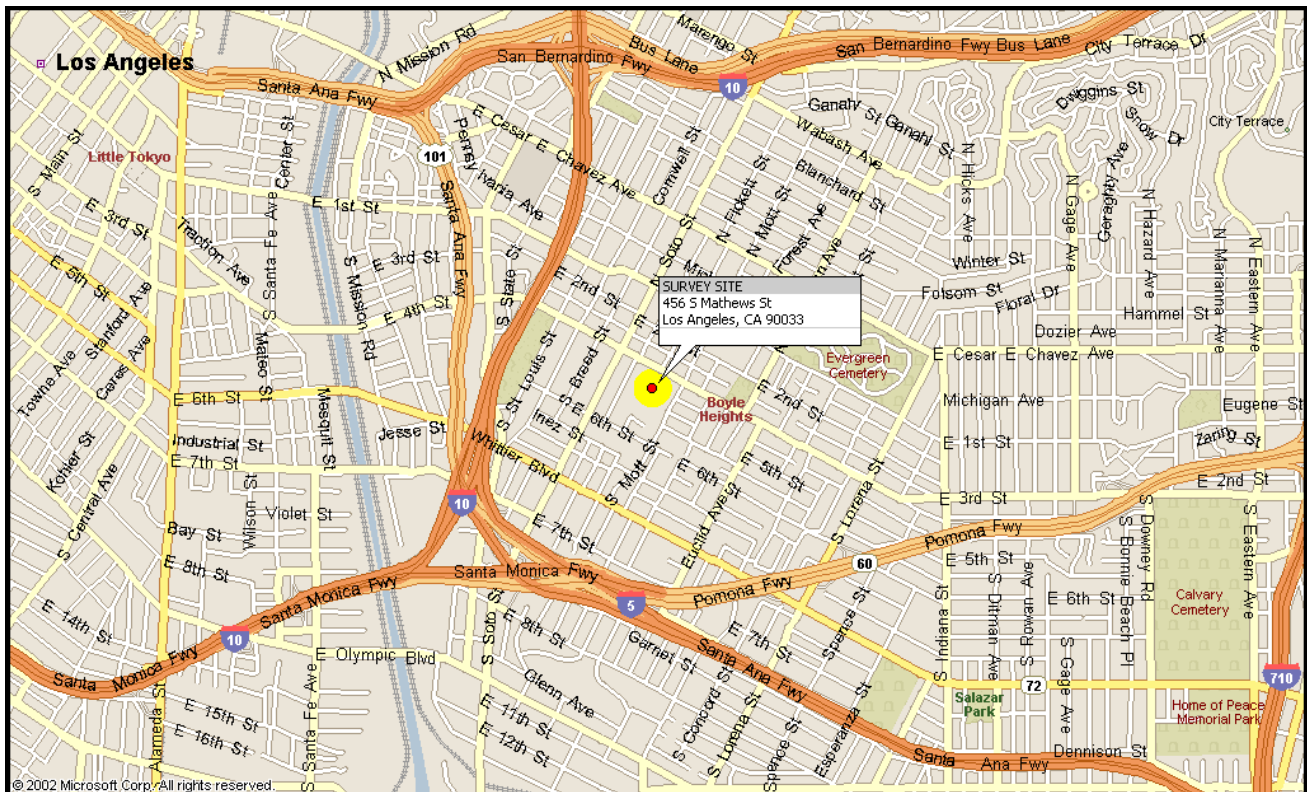


FIGURE 1. Site location map.

A combination of electromagnetic induction (EM), magnetometry, and ground penetrating radar (GPR) were brought to the field in anticipation of use. Utility locators with line tracing capabilities were also used where applicable.

Survey Design – TRC, for their own purposes, has divided the campus into sections and labeled them Areas 1-9. The fourteen proposed boreholes during this survey were located in Areas 2 and 9.

For this particular site and survey objectives, the best use of time was achieved by systematically free-traversing with the instruments while monitoring them manually, continuously, and in real-time to determine which responses were significant and due to true subsurface targets, and which were due to other non-target or above-ground features and must be ignored (examples being rebar-reinforced concrete, nearby building walls, and overhead canopies). In these situations, the free-traversing method is advantageous in that it allows for immediate detection of anomalous objects and facilitates the opportunity to investigate them further despite any obstructions and without the need to first download data. Where applicable, and depending on location, the EM devices, magnetic gradiometer, and GPR were traversed systematically over the survey areas in multiple, organized directions. Other traverses were taken for detailing and confirmation where anomalous conditions were found.

In addition, the line tracers were used to impress signals onto pipes, generally through accessible risers and tracer wires when present, to delineate the lines' locations and orientations. The instruments were also used in passive mode, configured to detect 60 Hz electrical signals and other common radio-frequency signals found in active electrical and communication lines.

A Geonic's model EM61 and a Fischer TW-6 M-Scope was used for the EM sampling. A Sensors & Software Noggin Ground Penetrating Radar unit with a 500 MHz antenna produced the radar images. The magnetic gradiometer was a Schonstedt GA-52, and a Metrotech 9890 and RIDGID SR-60 SeekTech utility locator rounded out the tools applied.

Brief Description of the Geophysical Methods Applied – The EM61 instrument is a high resolution, time-domain device for detecting buried conductive objects. It consists of a powerful transmitter that generates a pulsed primary magnetic field when its coils are energized, which induces eddy currents in nearby conductive objects. The decay of the eddy currents, following the input pulse, is measured by the coils, which in turn serve as receiver coils. The decay rate is measured for two coils, mounted concentrically, one above the other. By making the measurements at a relatively long time interval (measured in milliseconds) after termination of the primary pulse, the response is nearly independent of the electrical conductivity of the ground. Thus, the instrument is a super-sensitive metal detector. Due to its unique coil arrangement, the response curve is a single well-defined positive peak directly over a buried conductive object. This facilitates quick and accurate location of targets.

The M-Scope device energizes the ground by producing an alternating primary magnetic field with AC current in a transmitting coil. If conducting materials are within the area of influence of the primary field, AC eddy currents are induced to flow in the conductors. A receiving coil senses the secondary magnetic field produced by these eddy currents, and outputs the response as anomalous conditions. The strength of the secondary field is a function of the conductivity of the object, say a pipe, tank or cluster of drums, its size, and its depth and position relative to the instrument's two coils. Conductive objects, to a depth of approximately 7 feet below ground surface (bgs) for the M-Scope are sensed. The device is also somewhat focused; that is, it is more sensitive to conductors below the instrument than they are to conductors off to the

side.

The GPR instrument beams energy into the ground from its transducer/antenna, in the form of electromagnetic waves. A portion of this energy is reflected back to the antenna at a boundary in the subsurface across which there is an electrical contrast. The instrument produces a continuous record of the reflected energy as the antenna is traversed across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The radar wave travels at a velocity unique to the material properties of the ground being investigated, and when these velocities are known, the two-way travel times can be converted to depth. The depth of penetration and image resolution produced are a function of ground electrical conductivity and dielectric constant.

The magnetic gradiometer has two flux gate magnetic fixed sensors that are passed closely to and over the ground. When not in close proximity to a magnetic object, that is, only in the earth's field, the instrument emits a sound signal at a low frequency. When the instrument passes over a buried iron or steel object, so that locally there is a high magnetic gradient, the frequency of the emitted sound increases. The frequency is a function of the gradient between the two sensors.

The line locator is used to passively detect energized high voltage electric lines and electrical conduit (50-60 Hz), VLF signals (14-22 kHz), as well as to actively trace other utilities. Where risers are present, the utility locator transmitter can be connected directly to the object, and a signal (9.8-82 kHz) is sent traveling along the conductor, pipe, conduit, etc. In the absence of a riser, the transmitter can be used to impress an input signal on the utility by induction. In either case, the receiver unit is tuned to the input signal, and is used to actively trace the signal along the pipe's surface projection.

Interpretation and Conclusions - The interpretation took place in real time as the survey progressed, and accordingly, the findings of our investigation were marked on the ground cover at the site using temporary spray chalk, reported to the client, and are further documented with site photographs of all areas investigated, grouped according to the TRC's area number in which they were located in (Figures 2-14).

Detected items in the vicinity of the boreholes were marked on site, and are additionally highlighted in the accompanying graphics, blue for sprinkler irrigation, green for wastewater, and white for the extended footing for a retaining wall. Please review the site photographs for the locations and orientations of all items found within the vicinity of the boreholes.

At the conclusion of the survey, all boreholes were positioned in order to provide adequate clearance from detected obstructions. In their final locations, they were marked in pink with a yellow "SSS" to indicate that each had been checked by company personnel. Boreholes within dirt or grass areas were additionally marked with a pink flag.

Limitations and Further Recommendations - It should be understood that limitations inherent in geophysical instruments and/or surveying techniques exist at all sites, and nearly all sites exhibit conditions under which such might not perform optimally. Consequently, the detection of buried objects in all circumstances **cannot be guaranteed**. Such limitations are numerous and include, but are not limited to, rebar-reinforced ground cover, abrupt changes in ground cover type, above-ground obstacles preventing full traverses or traverses in one direction only, above-ground conductive objects interfering with instrument signal, nearby powerlines or EM transmitters, highly conductive background soil conditions, limited GPR penetration, non-metallic targets, shallower or larger objects shielding deeper or smaller targets, tracing

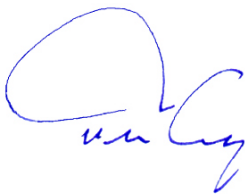
signal jumping from one line to another, and inaccessible risers, cleanouts, valve boxes, and manholes. If one or more geophysical instrument is rendered ineffective and cannot be utilized, the quality of the survey can be somewhat degraded.

For the above reasons, and in the interest of maximum safety, we encourage our clients to take advantage of Underground Service Alert (USA), Dig Alert, or other similar services, when possible. Furthermore, we recommend hand-auguring and the use of a drilling method known as air knifing or vacuum extraction, when feasible or if applicable to this project. These methods may significantly limit damage to underground pipes, conduits, and utilities that might not have been detectable during the course of this survey. Please bear in mind, that geophysical surveying is only one of several levels of protection that is available to our clients.

SubSurface Surveys may include maps in some reports. While they are an accurate general representation of the site and our findings, they are not of engineering quality (i.e., measured and mapped by a licensed land surveyor).

SubSurface Surveys and Associates makes no guarantee either expressed or implied regarding the accuracy of the findings and interpretations present. And, in no event will SubSurface Surveys and Associates be liable for any direct, indirect, special, incidental, or consequential damages resulting from interpretations and opinions presented herewith.

All data generated on this project are in confidential file in this office, and are available for review by authorized persons at any time. The opportunity to participate in this investigation is very much appreciated. Please call, if there are questions.



Travis Crosby
CA State Geophysics Registration GP1044
Senior Geophysicist, SubSurface Surveys



Figure 2



Figure 3

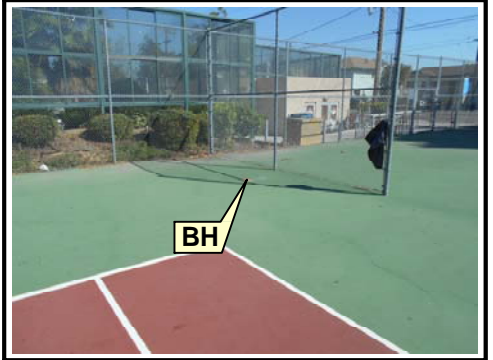


Figure 4

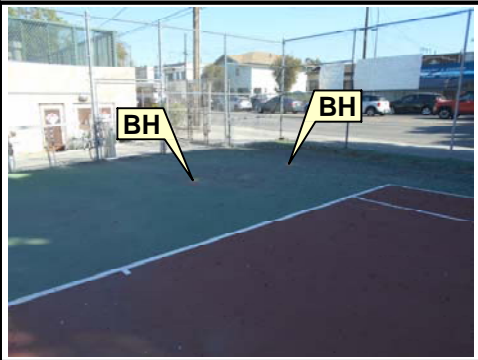
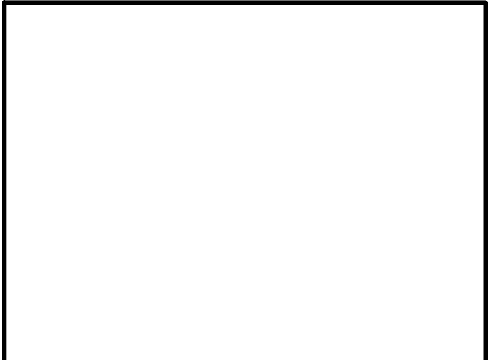
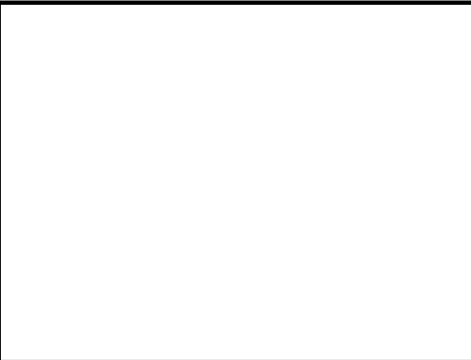


Figure 5



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 2
PREPARED FOR:
TRC

SURVEY DATE:
June 14, 2017
SSS PROJECT NO:
17-124B

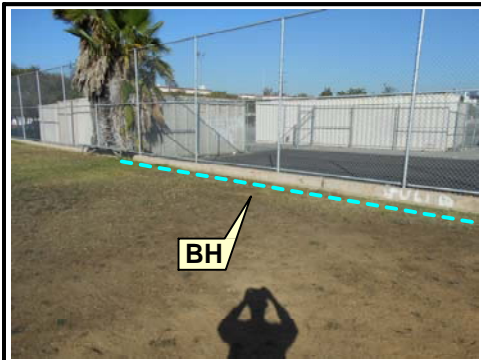


Figure 6

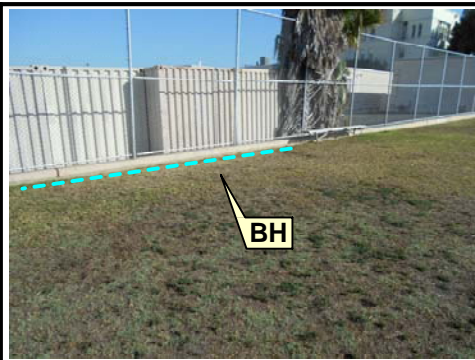


Figure 7

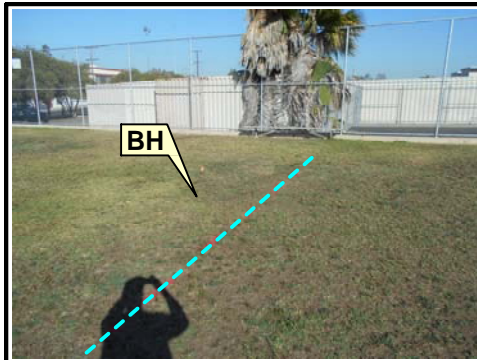


Figure 8

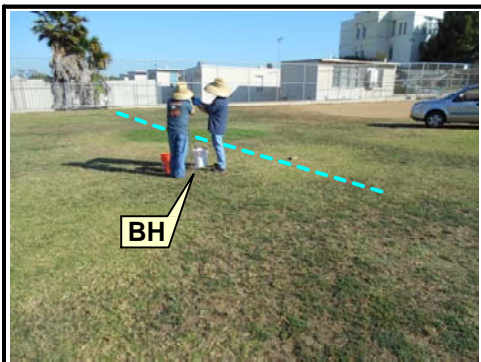


Figure 9



Figure 10



Figure 11



Figure 12

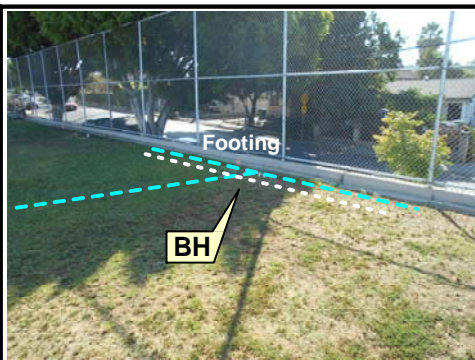


Figure 13

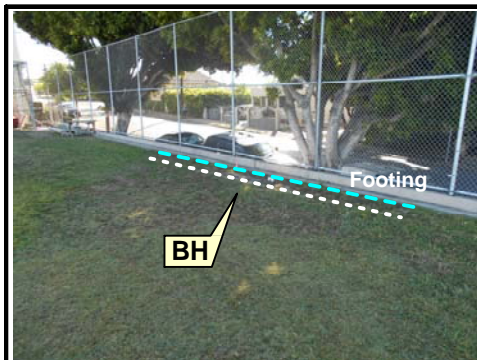


Figure 14



SITE:
Roosevelt High School
456 South Mathews Street
Los Angeles, California

TITLE:
Borehole Photographs, Area 9
PREPARED FOR:
TRC

SURVEY DATE:
June 14, 2017
SSS PROJECT NO:
17-124B

APPENDIX E
SOIL BORING LOGS

PROJECT NO.: 265642				DATE DRILLED: October 22, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST./5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0 Concrete
		2	SILT SAND: brownish yellow (10 R 6/6) slightly moist fine-grained.	SM		2
		4	Light yellowish brown (10 R 6/4).			4 Granular Bentonite
	1.0	6				6
		8				8
	0	10	Bottom of boring 10 fbg			10
		12				12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	HL1-1 PAGE 1 OF 1
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PROJECT NO.: 265642			DATE DRILLED: October 22, 2016		
LOCATION: Roosevelt High School			LOGGED BY: R. Surrency PG		
456 S. Matthews Street			APPROVED BY: R. Surrency PG		
Los Angeles, California			DRILLING CO./RIG: EST./5400		

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0
	0.2	2	SILT SAND: brownish yellow (10 R 6/6) slightly moist fine-grained.	SM		2
	0.6	4	Light yellowish brown (10 R 6/4).			4
	0	10	Bottom of boring 10 fbg			10
		12				12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	HL1-2 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 22, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST./5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0 Concrete
	0	2	SILT: brownish yellow (10 R 6/6) slightly moist trace clay.	ML		2
	0	4	Light yellowish brown (10 R 6/4).			4 Granular Bentonite
	0	6				6
	0	8				8
	0	10	SAND: light yellowish brown (10 R 6/4) fine- to medium-grained.	SP		10
			Bottom of boring 10 fbg			
		12				12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	HL2-1 PAGE 1 OF 1
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PROJECT NO.: 265642	DATE DRILLED: October 22, 2016
LOCATION: Roosevelt High School	LOGGED BY: R. Surrency PG
456 S. Matthews Street	APPROVED BY: R. Surrency PG
Los Angeles, California	DRILLING CO./RIG: EST./5400

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 2-inch Direct Push	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
			SAMPLER TYPE: Macro Core			
			TOTAL DEPTH: 10 feet OBSERVED DEPTH TO WATER: NA			
			DESCRIPTION			
	0	0	Surface Material: Concrete			Concrete
	4.2	2	SILT: brownish yellow (10R 6/6) slightly moist.	ML		
	14.1	4	Light yellowish brown (10R 6/4).			Granular Bentonite
		6				
		8				
	0	10	SAND: light yellowish brown (10R 6/4) fine- to medium-grained.	SP		
		12	Bottom of boring 10 fbg			
		14				
		16				
		18				
		20				
		22				
		24				
		26				
		28				
		30				
		32				
		34				
		36				
		38				
		40				

PROJECT NO.: 265642				DATE DRILLED: October 22, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST./5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0 Concrete
	0.2	2	CLAYEY SILT: brownish yellow (10R 6/6) slightly moist.	ML		2
	1.2	4	SILT: light yellowish brown (10R 6/4) slightly moist.			4 Granular Bentonite
		6				6
		8				8
	0	10	SAND: light yellowish brown (10R 6/4) dense fine- to medium-grained.	SP		10
		12	Bottom of boring 10 fbg			12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	HL3-1 PAGE 1 OF 1
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PROJECT NO.: 265642	DATE DRILLED: October 22, 2016
LOCATION: Roosevelt High School	LOGGED BY: R. Surrency PG
456 S. Matthews Street	APPROVED BY: R. Surrency PG
Los Angeles, California	DRILLING CO./RIG: EST./5400

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 2-inch Direct Push	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
			SAMPLER TYPE: Macro Core			
			TOTAL DEPTH: 10 feet OBSERVED DEPTH TO WATER: NA			
			DESCRIPTION			
		0	Surface Material: Concrete			0 Concrete
	0	2	CLAYEY SILT: brownish yellow (10R 6/6) slightly moist.	ML		2
		4	SILT: light yellowish brown (10R 6/4) slightly moist.			4 Granular Bentonite
	0	6				6
		8				8
	0	10	SAND: light yellowish brown (10R 6/4) dense fine- to medium-grained.	SP		10
		12	Bottom of boring 10 fbg			12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

PROJECT NO.: 265642				DATE DRILLED: October 22, 2016	
LOCATION: Roosevelt Hig School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST./5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0 Concrete
		2	CLAYEY SILT: yellowish brown (10R 5/4) slightly moist.	ML		2
		4	SILT: brownish yellow (10R 6/6) slightly moist.			4 Granular Bentonite
		6				6
		8				8
		10	SAND: brownish yellow (10R 6/6) fine- to medium-grained some silt.	SP		10
		12	Bottom of boring 10 fbg			12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	HL4-1 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 22, 2016			
LOCATION: Roosevelt Hig School				LOGGED BY: R. Surrency PG			
456 S. Matthews Street				APPROVED BY: R. Surrency PG			
Los Angeles, California				DRILLING CO./RIG: EST./5400			

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0 Concrete
		2	CLAYEY SILT: yellowish brown (10R 5/4) slightly moist.	ML		2
		4	SILT: brownish yellow (10R 6/6) slightly moist.			4 Granular Bentonite
		6				6
		8				8
		10	SAND: brownish yellow (10R 6/6) fine- to medium-grained some silt.	SP		10
		12	Bottom of boring 10 fbg			12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	HL4-2 PAGE 1 OF 1
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PROJECT NO.: 265642	DATE DRILLED: October 22, 2016
LOCATION: Roosevelt Hig School	LOGGED BY: R. Surrency PG
456 S. Matthews Street	APPROVED BY: R. Surrency PG
Los Angeles, California	DRILLING CO./RIG: EST./5400

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 2-inc Direct Push	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
			SAMPLER TYPE: Macro Core			
			TOTAL DEPTH: 10 feet OBSERVED DEPTH TO WATER: NA			
			DESCRIPTION			
		0	Surface Material: Soil			0
	0	2	SILT CLAY: brown (10 R 4/3) moist.	CL		2
	0	4	CLAYEY SILT: strong brown (15 R 5/6) moist some sand trace gravel.	ML		4
	0	6				6
		8	SILT SAND: reddish yellow (15 R 6/6) fine- to coarse-grained some gravel.	SM		8
		10	Bottom of boring 10 fbg			10
		12				12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

PROJECT NO.: 265642				DATE DRILLED: October 22, 2016			
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG			
456 S. Matthews Street				APPROVED BY: R. Surrency PG			
Los Angeles, California				DRILLING CO./RIG: EST./5400			

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Asphalt			0 Concrete
0		2	SAND: light yellowish brown (10 R 6/4) slightly moist fine- to coarse-grained trace gravel.	S		2
0.2		4	Brownish yellow (10 R 6/6) dense fine- to coarse-grained some gravel subrounded trace silt.			4 Granular Bentonite
		6				6
		8				8
0		10	SILT SAND: yellow (10 R 7/6) fine-grained trace gravel trace iron staining.	SM		10
		12				12
0		14	Bottom of boring 14 fbg			14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	FILL 2 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 22, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST./5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0 Concrete
0		2	CLAYEY SILT: strong brown (5R 5/6) slightly moist slightly micaceous.	ML		
0		4	SAND: reddish yellow (5R 7/8) dense fine-to medium grained.	SP		Granular Bentonite
0		8	SAND: fine- to coarse-grained.	SP		
		10	Bottom of boring 10 fbg			
		12				
		14				
		16				
		18				
		20				
		22				
		24				
		26				
		28				
		30				
		32				
		34				
		36				
		38				
		40				

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	CL1 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 22, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST./5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Concrete			0 Concrete
0		2	CLAYEY SILT: strong brown (5R 5/6) slightly moist slightly micaceous.	ML		
0		4	SAND: reddish yellow (5R 7/8) dense fine-to medium grained.	SP		Granular Bentonite
0		8	SAND: fine- to coarse-grained.	SP		
		10	Bottom of boring 10 fbg			
		12				
		14				
		16				
		18				
		20				
		22				
		24				
		26				
		28				
		30				
		32				
		34				
		36				
		38				
		40				

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	CL2 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 22 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Soil.			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20				20
		22	Bottom of boring 22 fbg			22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M1 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 12, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency, PG	
456 S. Matthews Street				APPROVED BY: R. Surrency, PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 22 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Soil. Hand-Augered to 4.5 feet.			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20				20
		22	Bottom of boring 22 fbg			22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M2 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 22 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Soil.			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20				20
		22	Bottom of boring 22 fbg			22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M3 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 22 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Soil. Hand-Augered to 4.5 feet.			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20				20
		22	Bottom of boring 22 fbg			22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M4 PAGE 1 OF 1
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PROJECT NO.: 265642			DATE DRILLED: October 12, 2016		
LOCATION: Roosevelt High School			LOGGED BY: R. Surrency PG		
456 S. Matthews Street			APPROVED BY: R. Surrency PG		
Los Angeles, California			DRILLING CO./RIG: EST/5400		

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push		USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL	
			SAMPLER TYPE: NA					
			TOTAL DEPTH: 22 feet OBSERVED DEPTH TO WATER: NA					
			DESCRIPTION					
		0	Surface Material: Asphalt				0	Asphalt
		2					2	Hydrated Granular Bentonite
		4					4	
		6					6	Dry Granular Bentonite
		8					8	Probe
		10					10	2/16 Sand
		12					12	Hydrated Granular Bentonite
		14					14	Dry Granular Bentonite
		16					16	Probe
		18					18	2/16 Sand
		20					20	Hydrated Granular Bentonite
		22	Bottom of boring 22 fbg				22	Dry Granular Bentonite
		24					24	Probe
		26					26	2/16 Sand
		28					28	
		30					30	
		32					32	
		34					34	
		36					36	
		38					38	
		40					40	

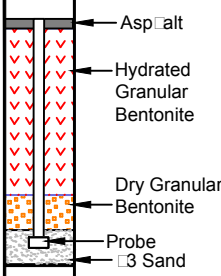
	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M5 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 08 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push		USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL	
			SAMPLER TYPE: NA					
			TOTAL DEPTH: 12 feet OBSERVED DEPTH TO WATER: NA					
			DESCRIPTION					
		0	Surface Material: Asphalt				0	Asphalt
		2					2	Hydrated Granular Bentonite
		4					4	
		6					6	Dry Granular Bentonite
		8					8	Probe 3 Sand
		10					10	Hydrated Granular Bentonite
		12	Refusal at 12 fbg.				12	Dry Granular Bentonite
		14					14	Probe 3 Sand
		16					16	
		18					18	
		20					20	
		22					22	
		24					24	
		26					26	
		28					28	
		30					30	
		32					32	
		34					34	
		36					36	
		38					38	
		40					40	

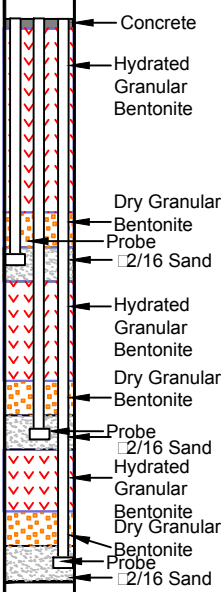
	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M6 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt Hig School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 0 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Soil			 <p>Diagram showing a vertical borehole with layers: Asphalt (0-1 ft), Hydrated Granular Bentonite (1-5 ft), Dry Granular Bentonite (5-6 ft), Probe (6 ft), and 3 Sand (6-7 ft).</p>
		2				
		4				
		6				
		8	Refusal at 0 fbg.			
		10				
		12				
		14				
		16				
		18				
		20				
		22				
		24				
		26				
		28				
		30				
		32				
		34				
		36				
		38				
		40				

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M7 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 12, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency, PG	
456 S. Matthews Street				APPROVED BY: R. Surrency, PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOGS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 16 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: 4-inches of Concrete			
		2				
		4				
		6				
		8				
		10				
		12				
		14				
		16	Refusal at 16 fbg.			
		18				
		20				
		22				
		24				
		26				
		28				
		30				
		32				
		34				
		36				
		38				
		40				

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M8 PAGE 1 OF 1
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PROJECT NO.: 265642			DATE DRILLED: October 12, 2016		
LOCATION: Roosevelt High School			LOGGED BY: R. Surrency, PG		
456 S. Matthews Street			APPROVED BY: R. Surrency, PG		
Los Angeles, California			DRILLING CO./RIG: EST/5400		

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push		USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
			SAMPLER TYPE: NA				
			TOTAL DEPTH: 22 feet OBSERVED DEPTH TO WATER: NA				
			DESCRIPTION				
		0	Surface Material: 6-inches of Concrete				<p>Concrete</p> <p>Hydrated Granular Bentonite</p> <p>Dry Granular Bentonite</p> <p>Probe</p> <p>#2/16 Sand</p> <p>Hydrated Granular Bentonite</p> <p>Dry Granular Bentonite</p> <p>Probe</p> <p>#2/16 Sand</p> <p>Hydrated Granular Bentonite</p> <p>Dry Granular Bentonite</p> <p>Probe</p> <p>#2/16 Sand</p>
		2					
		4					
		6					
		8					
		10					
		12					
		14					
		16					
		18					
		20					
		22	Bottom of boring 22 fbg				
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

	LOG OF EXPLORATORY BORING	M9
	(SEE BORING LOG SHEET FOR LEGEND)	PAGE 1 OF 1


PROJECT NO.: 265642				DATE DRILLED: October 08 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Asphalt			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14	Refusal at 13 fbg.			14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M10 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push		USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL	
			SAMPLER TYPE: NA					
			TOTAL DEPTH: 12 feet OBSERVED DEPTH TO WATER: NA					
			DESCRIPTION					
		0	Surface Material: Asphalt				0	Asphalt
		2					2	Hydrated Granular Bentonite
		4					4	
		6					6	Dry Granular Bentonite
		8					8	Probe 3 Sand
		10					10	Hydrated Granular Bentonite
		12	Refusal at 12 fbg.				12	Dry Granular Bentonite
		14					14	Probe 3 Sand
		16					16	
		18					18	
		20					20	
		22					22	
		24					24	
		26					26	
		28					28	
		30					30	
		32					32	
		34					34	
		36					36	
		38					38	
		40					40	

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M11 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt High School				LOGGED BY: J. Keller PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 16 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: 6-inches of Concrete			
		2				
		4				
		6				
		8				
		10				
		12				
		14				
		16	Refusal at 16 fbg.			
		18				
		20				
		22				
		24				
		26				
		28				
		30				
		32				
		34				
		36				
		38				
		40				

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M12 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 12, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency, PG	
456 S. Matthews Street				APPROVED BY: R. Surrency, PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 15 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: 6-inches of Concrete			
		2				
		4				
		6				
		8				
		10				
		12				
		14				
		16	Bottom of boring 15 fbg			
		18				
		20				
		22				
		24				
		26				
		28				
		30				
		32				
		34				
		36				
		38				
		40				

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M13 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt Hig School				LOGGED BY: J. Keller PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Asphalt			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16	Refusal at 15 fbg			16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M14 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 11 2016	
LOCATION: Roosevelt High School				LOGGED BY: J. Keller PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Asphalt			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20				20
		22	Bottom of boring 22 fbg			22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M15 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt Hig School				LOGGED BY: J. Keller PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 12 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Asphalt			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12	Refusal at 12 fbg.			12
		14				14
		16				16
		18				18
		20				20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M16 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 08 2016	
LOCATION: Roosevelt High School				LOGGED BY: J. Keller PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Asphalt			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20	Refusal at 18 fbg			20
		22				22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M17 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 12, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency, PG	
456 S. Matthews Street				APPROVED BY: R. Surrency, PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push SAMPLER TYPE: NA TOTAL DEPTH: 22 feet OBSERVED DEPTH TO WATER: NA DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Soil. Hand Augered to 4 feet.			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20				20
		22	Bottom of boring 22 fbg			22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M18 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 01 2016	
LOCATION: Roosevelt Hig School				LOGGED BY: J. Keller PG	
456 S. Matthews Street				APPROVED BY: R. Surrency PG	
Los Angeles California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 1.5-inch Direct Push		USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL	
			SAMPLER TYPE: NA					
			TOTAL DEPTH: 12 feet OBSERVED DEPTH TO WATER: NA					
			DESCRIPTION					
		0	Surface Material: Asphalt				0	Asphalt
		2					2	Hydrated Granular Bentonite
		4					4	
		6					6	Dry Granular Bentonite
		8					8	Probe
		10					10	3 Sand
		12	Refusal at 12 fbg.				12	Hydrated Granular Bentonite
		14					14	Dry Granular Bentonite
		16					16	Probe
		18					18	3 Sand
		20					20	
		22					22	
		24					24	
		26					26	
		28					28	
		30					30	
		32					32	
		34					34	
		36					36	
		38					38	
		40					40	

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M19 PAGE 1 OF 1
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PROJECT NO.: 265642				DATE DRILLED: October 12, 2016	
LOCATION: Roosevelt High School				LOGGED BY: R. Surrency, PG	
456 S. Matthews Street				APPROVED BY: R. Surrency, PG	
Los Angeles, California				DRILLING CO./RIG: EST/5400	

BLOBS PER 6 INCHES	PID (ppm)	SAMPLE DEPTH (feet below grade)	DESCRIPTION	USCS	GRAPHIC LOG	BORING CONSTRUCTION DETAIL
		0	Surface Material: Soil. Hand-Augered to 5 feet.			0
		2				2
		4				4
		6				6
		8				8
		10				10
		12				12
		14				14
		16				16
		18				18
		20				20
		22	Bottom of boring 22 fbg			22
		24				24
		26				26
		28				28
		30				30
		32				32
		34				34
		36				36
		38				38
		40				40

	LOG OF EXPLORATORY BORING (SEE BORING LOG SHEET FOR LEGEND)	M20 PAGE 1 OF 1
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APPENDIX F

OFFICIAL LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS – SOIL SAMPLES



October 24, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603543

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 08, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/24/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
F-11-0.5'	1603543-01	Soil	10/08/16 8:10	10/08/16 17:17
F-10-0.5'	1603543-03	Soil	10/08/16 8:22	10/08/16 17:17
E-11-0.5'	1603543-05	Soil	10/08/16 8:35	10/08/16 17:17
E-10-0.5'	1603543-07	Soil	10/08/16 8:48	10/08/16 17:17
F-9-0.5'	1603543-09	Soil	10/08/16 8:59	10/08/16 17:17
E-9-0.5'	1603543-11	Soil	10/08/16 9:19	10/08/16 17:17
D-11-0.5'	1603543-13	Soil	10/08/16 9:54	10/08/16 17:17
D-10-0.5'	1603543-15	Soil	10/08/16 9:39	10/08/16 17:17
D-9-0.5'	1603543-17	Soil	10/08/16 10:06	10/08/16 17:17
C-11-0.5'	1603543-19	Soil	10/08/16 10:29	10/08/16 17:17
C-10-0.5'	1603543-21	Soil	10/08/16 10:44	10/08/16 17:17
C-9-0.5'	1603543-23	Soil	10/08/16 11:00	10/08/16 17:17
B-11-0.5'	1603543-25	Soil	10/08/16 11:29	10/08/16 17:17
B-10-0.5'	1603543-27	Soil	10/08/16 11:49	10/08/16 17:17
B-9-0.5'	1603543-29	Soil	10/08/16 12:14	10/08/16 17:17
I-13-0.5'	1603543-31	Soil	10/08/16 13:05	10/08/16 17:17
H-13-0.5'	1603543-32	Soil	10/08/16 13:32	10/08/16 17:17
G-13-0.5'	1603543-35	Soil	10/08/16 14:08	10/08/16 17:17
F-13-0.5'	1603543-37	Soil	10/08/16 14:26	10/08/16 17:17
E-13-0.5'	1603543-39	Soil	10/08/16 14:44	10/08/16 17:17
D-13-0.5'	1603543-41	Soil	10/08/16 15:09	10/08/16 17:17
EB-1-10/8/16	1603543-43	Water	10/08/16 15:21	10/08/16 17:17
F-9-0.5' DUP	1603543-44	Soil	10/08/16 8:59	10/08/16 17:17
B-10-0.5' DUP	1603543-46	Soil	10/08/16 11:49	10/08/16 17:17

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID F-11-0.5'

Lab ID: 1603543-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 14:56	
Lead	23	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 14:56	



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Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID F-10-0.5'

Lab ID: 1603543-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 14:58	
Lead	34	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 14:58	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID E-11-0.5'

Lab ID: 1603543-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 14:59	
Lead	26	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 14:59	



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Reported : 10/24/2016

Client Sample ID E-10-0.5'

Lab ID: 1603543-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 15:00	
Lead	18	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 15:00	



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Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID F-9-0.5'

Lab ID: 1603543-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 15:01	
Lead	24	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 15:01	



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Client Sample ID E-9-0.5'

Lab ID: 1603543-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 15:02	
Lead	24	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 15:02	



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Reported : 10/24/2016

Client Sample ID D-11-0.5'

Lab ID: 1603543-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:09	
Lead	18	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:09	



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Reported : 10/24/2016

Client Sample ID D-10-0.5'

Lab ID: 1603543-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:13	
Lead	25	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:13	



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Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID D-9-0.5'

Lab ID: 1603543-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:14	
Lead	28	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:14	



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Reported : 10/24/2016

Client Sample ID C-11-0.5'

Lab ID: 1603543-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:15	
Lead	18	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:15	



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Client Sample ID C-10-0.5'

Lab ID: 1603543-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:16	
Lead	23	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:16	



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Client Sample ID C-9-0.5'

Lab ID: 1603543-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:20	
Lead	12	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:20	



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Client Sample ID B-11-0.5'

Lab ID: 1603543-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:21	
Lead	39	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:21	



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Reported : 10/24/2016

Client Sample ID B-10-0.5'

Lab ID: 1603543-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:22	
Lead	43	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:22	



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Reported : 10/24/2016

Client Sample ID B-9-0.5'

Lab ID: 1603543-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:23	
Lead	20	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:23	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID I-13-0.5'

Lab ID: 1603543-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:25	
Lead	5.9	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:25	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID H-13-0.5'

Lab ID: 1603543-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:26	
Lead	48	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:26	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID G-13-0.5'

Lab ID: 1603543-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:27	
Lead	10	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:27	



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Reported : 10/24/2016

Client Sample ID F-13-0.5'

Lab ID: 1603543-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:28	
Lead	12	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:28	



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Reported : 10/24/2016

Client Sample ID E-13-0.5'

Lab ID: 1603543-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:29	
Lead	40	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:29	



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Client Sample ID D-13-0.5'

Lab ID: 1603543-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:30	
Lead	43	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:30	



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Client Sample ID EB-1-10/8/16

Lab ID: 1603543-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0418	10/14/2016	10/14/16 14:20	
Lead	ND	0.0050	0.0028	1	B6J0418	10/14/2016	10/14/16 14:20	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
4,4'-DDE	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
4,4'-DDT	ND	0.05	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
Aldrin	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
alpha-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
alpha-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
beta-BHC	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Chlordane	ND	0.25	0.03	1	B6J0332	10/12/2016	10/12/16 12:16	
delta-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
Dieldrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endosulfan I	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endosulfan II	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endrin aldehyde	ND	0.05	0.006	1	B6J0332	10/12/2016	10/12/16 12:16	
Endrin ketone	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
gamma-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
gamma-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Heptachlor	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Methoxychlor	ND	0.25	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
Toxaphene	ND	2.5	0.23	1	B6J0332	10/12/2016	10/12/16 12:16	
Surrogate: Decachlorobiphenyl	43.0 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:16	
Surrogate: Tetrachloro-m-xylene	69.1 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:16	



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Client Sample ID EB-1-10/8/16

Lab ID: 1603543-43

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1221	ND	1.0	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1232	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1242	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1248	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1254	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1260	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1262	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1268	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
<i>Surrogate: Decachlorobiphenyl</i>	<i>47.9 %</i>		<i>7 - 127</i>		B6J0332	10/12/2016	<i>10/12/16 12:05</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>77.9 %</i>		<i>14 - 122</i>		B6J0332	10/12/2016	<i>10/12/16 12:05</i>	



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Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID F-9-0.5' DUP

Lab ID: 1603543-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:35	
Lead	23	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:35	



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Reported : 10/24/2016

Client Sample ID B-10-0.5' DUP

Lab ID: 1603543-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.0	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:08	D1
Lead	55	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:08	D1



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0418 - EPA 3010A_W

Blank (B6J0418-BLK1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0418-BS1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	0.967790	0.010	1.00000		96.8	80 - 120			
Lead	0.981258	0.0050	1.00000		98.1	80 - 120			

Duplicate (B6J0418-DUP1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0418-MS1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.28443	0.010	2.50000	ND	91.4	74 - 123			
Lead	2.32926	0.0050	2.50000	ND	93.2	78 - 109			

Matrix Spike Dup (B6J0418-MSD1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.21269	0.010	2.50000	ND	88.5	74 - 123	3.19	20	
Lead	2.26268	0.0050	2.50000	ND	90.5	78 - 109	2.90	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0471 - EPA 3050B_S

Blank (B6J0471-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	ND	1.0			NR				
Lead	0.258797	1.0			NR				J

LCS (B6J0471-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	41.0040	1.0	50.0000		82.0	80 - 120			
Lead	42.2924	1.0	50.0000		84.6	80 - 120			

Duplicate (B6J0471-DUP1)

Source: 1603431-74

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	2.29835	1.0		2.07570	NR		10.2	20	
Lead	430.244	1.0		421.926	NR		1.95	20	

Matrix Spike (B6J0471-MS1)

Source: 1603431-74

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	99.4260	1.0	125.628	2.07570	77.5	59 - 103			
Lead	578.613	1.0	125.628	421.926	125	34 - 129			

Matrix Spike Dup (B6J0471-MSD1)

Source: 1603431-74

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	100.532	1.0	125.000	2.07570	78.8	59 - 103	1.11	20	
Lead	582.008	1.0	125.000	421.926	128	34 - 129	0.585	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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Reported : 10/24/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0472 - EPA 3050B_S

Blank (B6J0472-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	ND	1.0			NR				
Lead	0.267933	1.0			NR				J

LCS (B6J0472-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	49.4437	1.0	50.0000		98.9	80 - 120			
Lead	51.5591	1.0	50.0000		103	80 - 120			

Duplicate (B6J0472-DUP1)

Source: 1603543-13

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	4.00579	1.0		4.05663	NR		1.26	20	
Lead	19.6959	1.0		18.0006	NR		8.99	20	

Matrix Spike (B6J0472-MS1)

Source: 1603543-13

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	99.6710	1.0	125.000	4.05663	76.5	59 - 103			
Lead	112.536	1.0	125.000	18.0006	75.6	34 - 129			

Matrix Spike Dup (B6J0472-MSD1)

Source: 1603543-13

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	92.8160	1.0	125.000	4.05663	71.0	59 - 103	7.12	20	
Lead	107.949	1.0	125.000	18.0006	72.0	34 - 129	4.16	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0567 - EPA 3050B_S

Blank (B6J0567-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0567-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	46.9369	1.0	50.0000		93.9	80 - 120			
Lead	47.4370	1.0	50.0000		94.9	80 - 120			

Duplicate (B6J0567-DUP1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	10		ND	NR			20	
Lead	30.6479	10		23.1921	NR		27.7	20	R

Matrix Spike (B6J0567-MS1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	121.299	5.0	125.000	3.69901	94.1	59 - 103			
Lead	155.509	5.0	125.000	23.1921	106	34 - 129			

Matrix Spike Dup (B6J0567-MSD1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	117.649	5.0	125.000	3.69901	91.2	59 - 103	3.06	20	
Lead	148.279	5.0	125.000	23.1921	100	34 - 129	4.76	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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Reported : 10/24/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0332-BLK1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3495		0.500000		69.9	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3986		0.500000		79.7	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4142		0.500000		82.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4376		0.500000		87.5	14 - 122		

LCS (B6J0332-BS1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.406435	0.05	0.500000		81.3	59 - 109		
4,4'-DDD [2C]	0.418670	0.05	0.500000		83.7	59 - 109		
4,4'-DDE	0.411130	0.05	0.500000		82.2	63 - 101		
4,4'-DDE [2C]	0.411210	0.05	0.500000		82.2	63 - 101		
4,4'-DDT	0.267165	0.05	0.500000		53.4	36 - 96		
4,4'-DDT [2C]	0.291695	0.05	0.500000		58.3	36 - 96		
Aldrin	0.417880	0.02	0.500000		83.6	64 - 96		
Aldrin [2C]	0.425215	0.02	0.500000		85.0	64 - 96		
alpha-BHC	0.415650	0.02	0.500000		83.1	63 - 92		
alpha-BHC [2C]	0.428550	0.02	0.500000		85.7	63 - 92		
alpha-Chlordane	0.401385	0.02	0.500000		80.3	63 - 101		
alpha-Chlordane [2C]	0.404315	0.02	0.500000		80.9	63 - 101		
beta-BHC	0.402630	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.418125	0.02	0.500000		83.6	58 - 95		
delta-BHC	0.296250	0.02	0.500000		59.2	37 - 107		
delta-BHC [2C]	0.302675	0.02	0.500000		60.5	37 - 107		
Dieldrin	0.417180	0.05	0.500000		83.4	62 - 102		
Dieldrin [2C]	0.421635	0.05	0.500000		84.3	62 - 102		
Endosulfan I	0.399945	0.02	0.500000		80.0	61 - 97		
Endosulfan I [2C]	0.406900	0.02	0.500000		81.4	61 - 97		
Endosulfan II	0.404650	0.05	0.500000		80.9	61 - 103		
Endosulfan II [2C]	0.398985	0.05	0.500000		79.8	61 - 103		
Endosulfan sulfate	0.349275	0.05	0.500000		69.9	60 - 112		
Endosulfan Sulfate [2C]	0.365450	0.05	0.500000		73.1	60 - 112		
Endrin	0.470725	0.05	0.500000		94.1	62 - 103		
Endrin [2C]	0.482695	0.05	0.500000		96.5	62 - 103		
Endrin aldehyde	0.376935	0.05	0.500000		75.4	64 - 116		
Endrin aldehyde [2C]	0.383165	0.05	0.500000		76.6	64 - 116		
Endrin ketone	0.346120	0.05	0.500000		69.2	56 - 113		
Endrin ketone [2C]	0.359040	0.05	0.500000		71.8	56 - 113		
gamma-BHC	0.416855	0.02	0.500000		83.4	64 - 95		
gamma-BHC [2C]	0.428785	0.02	0.500000		85.8	64 - 95		



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0332-BS1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

gamma-Chlordane	0.398875	0.02	0.500000		79.8	64 - 99		
gamma-Chlordane [2C]	0.401970	0.02	0.500000		80.4	64 - 99		
Heptachlor	0.403775	0.02	0.500000		80.8	64 - 93		
Heptachlor [2C]	0.411645	0.02	0.500000		82.3	64 - 93		
Heptachlor epoxide	0.407030	0.02	0.500000		81.4	65 - 98		
Heptachlor epoxide [2C]	0.415800	0.02	0.500000		83.2	65 - 98		
Methoxychlor	0.283360	0.25	0.500000		56.7	0 - 141		
Methoxychlor [2C]	0.320960	0.25	0.500000		64.2	0 - 141		
Surrogate: Decachlorobiphenyl	0.3916		0.500000		78.3	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.4032		0.500000		80.6	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4181		0.500000		83.6	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4563		0.500000		91.3	14 - 122		

LCS Dup (B6J0332-BSD1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.396620	0.05	0.500000		79.3	59 - 109	2.44	20
4,4'-DDD [2C]	0.405160	0.05	0.500000		81.0	59 - 109	3.28	20
4,4'-DDE	0.401385	0.05	0.500000		80.3	63 - 101	2.40	20
4,4'-DDE [2C]	0.398485	0.05	0.500000		79.7	63 - 101	3.14	20
4,4'-DDT	0.262370	0.05	0.500000		52.5	36 - 96	1.81	20
4,4'-DDT [2C]	0.280405	0.05	0.500000		56.1	36 - 96	3.95	20
Aldrin	0.406225	0.02	0.500000		81.2	64 - 96	2.83	20
Aldrin [2C]	0.410325	0.02	0.500000		82.1	64 - 96	3.56	20
alpha-BHC	0.403465	0.02	0.500000		80.7	63 - 92	2.98	20
alpha-BHC [2C]	0.413065	0.02	0.500000		82.6	63 - 92	3.68	20
alpha-Chlordane	0.390295	0.02	0.500000		78.1	63 - 101	2.80	20
alpha-Chlordane [2C]	0.391205	0.02	0.500000		78.2	63 - 101	3.30	20
beta-BHC	0.390770	0.02	0.500000		78.2	58 - 95	2.99	20
beta-BHC [2C]	0.403065	0.02	0.500000		80.6	58 - 95	3.67	20
delta-BHC	0.287245	0.02	0.500000		57.4	37 - 107	3.09	20
delta-BHC [2C]	0.293250	0.02	0.500000		58.6	37 - 107	3.16	20
Dieldrin	0.406965	0.05	0.500000		81.4	62 - 102	2.48	20
Dieldrin [2C]	0.408560	0.05	0.500000		81.7	62 - 102	3.15	20
Endosulfan I	0.390960	0.02	0.500000		78.2	61 - 97	2.27	20
Endosulfan I [2C]	0.395850	0.02	0.500000		79.2	61 - 97	2.75	20
Endosulfan II	0.396670	0.05	0.500000		79.3	61 - 103	1.99	20
Endosulfan II [2C]	0.387015	0.05	0.500000		77.4	61 - 103	3.05	20
Endosulfan sulfate	0.343820	0.05	0.500000		68.8	60 - 112	1.57	20
Endosulfan Sulfate [2C]	0.356380	0.05	0.500000		71.3	60 - 112	2.51	20
Endrin	0.461280	0.05	0.500000		92.3	62 - 103	2.03	20
Endrin [2C]	0.468460	0.05	0.500000		93.7	62 - 103	2.99	20
Endrin aldehyde	0.370645	0.05	0.500000		74.1	64 - 116	1.68	20



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0332-BSD1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Endrin aldehyde [2C]	0.378480	0.05	0.500000		75.7	64 - 116	1.23	20	
Endrin ketone	0.337815	0.05	0.500000		67.6	56 - 113	2.43	20	
Endrin ketone [2C]	0.346240	0.05	0.500000		69.2	56 - 113	3.63	20	
gamma-BHC	0.404790	0.02	0.500000		81.0	64 - 95	2.94	20	
gamma-BHC [2C]	0.414240	0.02	0.500000		82.8	64 - 95	3.45	20	
gamma-Chlordane	0.387960	0.02	0.500000		77.6	64 - 99	2.77	20	
gamma-Chlordane [2C]	0.389675	0.02	0.500000		77.9	64 - 99	3.11	20	
Heptachlor	0.393130	0.02	0.500000		78.6	64 - 93	2.67	20	
Heptachlor [2C]	0.398780	0.02	0.500000		79.8	64 - 93	3.17	20	
Heptachlor epoxide	0.398080	0.02	0.500000		79.6	65 - 98	2.22	20	
Heptachlor epoxide [2C]	0.404040	0.02	0.500000		80.8	65 - 98	2.87	20	
Methoxychlor	0.277810	0.25	0.500000		55.6	0 - 141	1.98	20	
Methoxychlor [2C]	0.311890	0.25	0.500000		62.4	0 - 141	2.87	20	
Surrogate: Decachlorobiphenyl	0.3830		0.500000		76.6	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3757		0.500000		75.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4058		0.500000		81.2	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4393		0.500000		87.9	14 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/24/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl

0.4394

0.500000

87.9

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4706

0.500000

94.1

14 - 122

LCS (B6J0332-BS2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.09639	0.50	5.00000		81.9	68 - 96			
Aroclor 1260	4.42498	0.50	5.00000		88.5	64 - 106			

Surrogate: Decachlorobiphenyl

0.4399

0.500000

88.0

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4658

0.500000

93.2

14 - 122

LCS Dup (B6J0332-BSD2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.03858	0.50	5.00000		80.8	68 - 96	1.42	20	
Aroclor 1260	4.38676	0.50	5.00000		87.7	64 - 106	0.868	20	

Surrogate: Decachlorobiphenyl

0.4253

0.500000

85.1

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4520

0.500000

90.4

14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/24/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page I of V

Instruction: Complete all shaded areas.

For Laboratory Use Only		Sample Conditions Upon Receipt	
Method of Transport	Condition	Y	N
<input checked="" type="checkbox"/> Client	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

Company: TRC Solutions, Inc	Address: 9680 Research Drive	Tel: 949-341-7467
City: Irvine	State: CA	Fax: 949-727-7311
Attn: John Nordenstam	Email: _____	
Company: TRC Solutions, Inc	Company: _____	
Address: 9685 Research Drive	Address: _____	
City: Irvine	State: CA	Zip: 92618

Project Name: LAVSD Roosevelt HS		Quote No: E16I131	Special Instructions/Comments:	
Item	Lab No.	Sample ID / Location	Date	Time
1	1603543-01	F-11 - 0.5'	10/8/16	0810
2	-02	F-11 - 2.5'	10/8/16	0817
3	-03	F-10 - 0.5'	10/8/16	0822
4	-04	F-10 - 2.5'	10/8/16	0831
5	-05	E-11 - 0.5'	10/8/16	0835
6	-06	E-11 - 2.5'	10/8/16	0845
7	-07	E-10 - 0.5'	10/8/16	0848
8	-08	E-10 - 2.5'	10/8/16	0854
9	-09	F-9 - 0.5'	10/8/16	0859
10	-10	F-9 - 2.5'	10/8/16	0910

<p>1. Samples received hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.</p> <p>3. The following surcharges apply:</p> <p>TAT = 0: 100% Surcharge - SAME BUSINESS DAY (if received by 9:00 AM)</p> <p>TAT = 1: 50% Surcharge - NEXT BUSINESS DAY (if received by 9:00 AM)</p> <p>TAT = 2: 30% Surcharge - 2ND BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 3: 30% Surcharge - 3RD BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 4: 30% Surcharge - 4TH BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 5: 30% Surcharge - 5TH BUSINESS DAY (COB 5:00 PM)</p> <p>Weekend, holiday, after-hours work - ask for quote.</p> <p>Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab - ask for quote.</p> <p>6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>7. Electronic records maintained for five (5) years from report date.</p> <p>8. Hard copy reports will be disposed of after 45 calendar days from report date.</p> <p>9. Storage and Report Fees:</p> <p>- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- All samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$25 per reprocessed EDD.</p> <p>10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>	
<p>Relinquished by: (Signature and Printed Name)</p> <p>Warren Howe</p> <p>Relinquished by: (Signature and Printed Name)</p> <p>Kelly Keller</p> <p>Relinquished by: (Signature and Printed Name)</p> <p>Kelly Keller</p>	<p>Signature</p> <p>Submitter Print Name</p>	<p>Date: 10-8-16</p> <p>Date: 10/8/16</p> <p>Date: 10/8/16</p>	

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

For Laboratory Use Only

ATLCOCC Ver: 20130715

Method of Transport

Client ☐ ATL ☐ FedEx ☐ GSO ☐ Other: _____

Condition

1. CHILLED ☐ 2. HEADSPACE (VOA) ☐ 3. CONTAINER IMPACT ☐ 4. SEALED ☐

5. # OF SAMPLES MATCH COC ☐ 6. PRESERVED ☐ 7. COOLER TEMP. deg C: _____

Company: TRC Solutions, Inc Address: 9685 Research Drive Tel: 949-341-7467

City: _____ State: CA Zip: 92618 Fax: 949-727-7311

Attn: _____ Email: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Project Name: LAUSD Roosevelt HS Quote No: E16I131

Project No.: 265642 PO #: 100816

Sampler: Warren Howe

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603543-11	E-9-0.5'		10/8/16	0919	AS EPA 6010/B Pb EPA 8081A EPA 8082	SOIL / SEDIMENT / SLUDGE	5-Liter, 6-Liter, 7 = Canister	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4 = 4C 5-Zn (Ac2), 6-NaOH, 7-Na2S2O3
2	-12	E-9-2.5'		10/8/16	0925				
3	-13	D-11-0.5'		10/8/16	0954				
4	-14	D-11-2.5'		10/8/16	1000				
5	-15	D-10-0.5'		10/8/16	0939				
6	-16	D-10-2.5'		10/8/16	0945				
7	-17	D-9-0.5'		10/8/16	1006				
8	-18	D-9-2.5'		10/8/16	1012				
9	-19	C-11-0.5'		10/8/16	1029				
10	-20	C-11-2.5'		10/8/16	1034				

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Submitter Print Name: _____

Received by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10/8/16 Time: 1717

CHAIN OF CUSTODY RECORD

Page III of V

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCCOC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	Condition 1. CHILLED <input type="checkbox"/> Y <input type="checkbox"/> N 2. HEADSPACE (VOA) <input type="checkbox"/> Y <input type="checkbox"/> N 3. CONTAINER INTACT <input type="checkbox"/> Y <input type="checkbox"/> N 4. SEALED <input type="checkbox"/> Y <input type="checkbox"/> N	Condition 5. # OF SAMPLES MATCH COC <input type="checkbox"/> Y <input type="checkbox"/> N 6. PRESERVED <input type="checkbox"/> Y <input type="checkbox"/> N 7. COOLER TEMP. deg C: <input type="checkbox"/> Y <input type="checkbox"/> N

Company: TRC Solutions, Inc	Address: 9685 Research Drive	City: Irvine	State: CA	Zip: 92618
Attn: John Nordenstam	Email: jnordenstam@trcsolutions.com	Company: TRC Solutions, Inc		
Address: 9685 Research Drive	City: Irvine	State: CA	Zip: 92618	

Project Name: LAUSD Roosevelt HS		Quote No: E161131	Special Instructions/Comments:	
Item	Lab No.	Sample ID / Location	Date	Time
1	1603543-21	C-10-0.5'	10/8/16	1044
2	-22	C-10-2.5'	10/8/16	1050
3	-23	C-9-0.5'	10/8/16	1100
4	-24	C-9-2.5'	10/8/16	1120
5	-25	B-11-0.5'	10/8/16	1129
6	-26	B-11-2.5'	10/8/16	1134
7	-27	B-10-0.5'	10/8/16	1149
8	-28	B-10-2.5'	10/8/16	1153
9	-29	B-9-0.5'	10/8/16	1214
10	-30	B-9-2.5'	10/8/16	1220

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Date: **10/8/16** Time: **1601**

Relinquished by: (Signature and Printed Name) **Wardon Howe** Date: **10-8-16** Time: **1601**

Relinquished by: (Signature and Printed Name) **Wardon Howe** Date: **8/8/16** Time: **1717**

Relinquished by: (Signature and Printed Name) **Wardon Howe** Date: **10/8/16** Time: **1117**

CHAIN OF CUSTODY RECORD

Page IV of V

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam jnordenstam@trcsolutions.com		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam jnordenstam@trcsolutions.com		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam jnordenstam@trcsolutions.com		City: Irvine		State: CA Zip: 92618	

Project Name: LAUSD Roosevelt HS E16I131		Quote No: E16I131		Special Instructions/Comments:	
Project No: 205642.000/TA02		PO #: 100816			
Sample: Warren Howe					
ITEM	Lab No.	Sample ID / Location	Date	Time	Remarks
1	1603543-31	I-13 - 0.5'	10/8/16	1305	
2	32	I-13 - 0.5'	10/8/16	1332	
3	33	I-13 - 2.5'	10/8/16	1344	
4	34	I-13 - 2.5'	10/8/16	1347	
5	35	G-13 - 0.5'	10/8/16	1408	
6	36	G-13 - 2.5'	10/8/16	1415	
7	37	F-13 - 0.5'	10/8/16	1426	
8	38	F-13 - 2.5'	10/8/16	1434	
9	39	E-13 - 0.5'	10/8/16	1444	
10	40	E-13 - 2.5'	10/8/16	1450	

<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples Submitted AFTER 3:00 PM, are considered received the following business day at 8:00 AM.</p> <p>3. The following surcharges apply to all samples:</p> <p>TAT = 1: 100% Surcharges - SAME BUSINESS DAY (if received by 9:00 AM)</p> <p>TAT = 2: 50% Surcharges - NEXT BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 3: 20% Surcharges - 2ND BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 4: 20% Surcharges - 3RD BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 5: 20% Surcharges - 4TH BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 6: 20% Surcharges - 5TH BUSINESS DAY (COB 5:00 PM)</p> <p>Weekend, holiday, after-hours work - ask for quote.</p> <p>4. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab -- ask for quote.</p> <p>5. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>6. Electronic records maintained for five (5) years from report date.</p> <p>7. Hard copy reports will be disposed of after 45 calendar days from report date.</p> <p>8. Storage and Report fees:</p> <p>- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested.</p> <p>- All samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- Hard copy and regenerated reports (EDDs): \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per repressed EDD.</p> <p>10. Rush TAT/STIC samples: add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>	
--	--	--	--

Relinquished by: (Signature and Printed Name)	Date: 10-8-16	Time: 1600
Relinquished by: (Signature and Printed Name)	Date: 10/8/16	Time: 1417
Relinquished by: (Signature and Printed Name)	Date: 10/8/16	Time: 1417

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
Condition	Y	N	Condition	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/>	<input type="checkbox"/>	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/>	<input type="checkbox"/>	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/>	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

Company: **TRC Solutions Inc** Address: **9685 Research Drive** Tel: **949-341-7467**
City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**
Attn: **John Nordenstam** Email: **nordenstam@trcsolutions.com**
Company: **TRC Solutions, Inc** Address: **9685 Research Drive**
City: **Irvine** State: **CA** Zip: **92618**

Project Name: **LAUSD Roosevelt HS E16131** Quote No: **265642.000/1A02** PO #: **100816**
Project No.: **265642.000/1A02** Sample: **Warren Howe**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603543-41	D-13-0.5'		10/8/16	1509	8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	1: Glass, 2: Plastic, 3: Metal	<input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB <input type="checkbox"/> Level IV
2	1603543-42	D-13-2.5'		10/8/16	1515	8260 / 624 (Volatiles)	WATER - DRINKING / GROUND	5: Jar, 6: Tedlar, 7: Canister	
3	1603543-43	FB-1-10/8/16		10/8/16	1521	8260 / 624 (Volatiles)	WATER - STORM / WASTE		
4						8260 / 624 (Volatiles)	WATER - DRINKING / GROUND		
5						8260 / 624 (Volatiles)	WATER - STORM / WASTE		
6						8260 / 624 (Volatiles)	WATER - DRINKING / GROUND		
7						8260 / 624 (Volatiles)	WATER - STORM / WASTE		
8						8260 / 624 (Volatiles)	WATER - DRINKING / GROUND		
9						8260 / 624 (Volatiles)	WATER - STORM / WASTE		
10						8260 / 624 (Volatiles)	WATER - DRINKING / GROUND		

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____
Date: 10/8/16 Time: 1601

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601
Relinquished by: (Signature and Printed Name) Kelly Kellon Date: 10/8/16 Time: 1717
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 10, 2016 5:43 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Please see my comments in red below.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Monday, October 10, 2016 1:31 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: LAUSD Roosevelt HS, 265642.0000 / TA02

Hi John,

We have a couple of notes/questions for the samples received last weekend.

- Samples received 10/8- the IB-1-10/8/16 samples is not marked for analysis **Sample ID should be EB-1-10/8/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**
- Sample IB-1-10/9/16 received 10/9- the CoC is marked for EPA 8021, based on your email I believed this should be EPA 8081. **Sample ID should be EB-1-10/9/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**

Please advise. Attached are the CoC's for these samples.

Thank you,

Carmen Aguila
Sample Control



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 245
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 17, 2016 5:50 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: LAUSD Roosevelt HS PEA - Duplicate Samples for October 8 and 9, 2016
Attachments: DOC101716-004.pdf

Rachelle – as per our discussion today, duplicate samples were not collected during the field sampling activities at LAUSD Roosevelt HS on October 8 and 9, 2016. Please pull an aliquot from the following samples to be used as a duplicate sample and perform the analyses as indicated below. Attached are copies of the COCs with the samples marked that should have duplicates.

Samples collected on October 8, 2016

- Sample F-9-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-9-2.5' - HOLD
- Sample B-10-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample G-13-2.5' – HOLD

Samples collected on October 9, 2016

- Sample H-17-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample E-14-2.5' - HOLD
- Sample C-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample B-13-2.5' – HOLD

- Sample F-14-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-14-2.5' – HOLD
- Sample B-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample K-16-2.5' – HOLD

I will be sending you addition instructions for sample compositing and analysis tomorrow. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

CHAIN OF CUSTODY RECORD

Page I of V

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> Fed Ex	<input type="checkbox"/> On-site	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other	<input type="checkbox"/> 2. HEADSPACE (1:10)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other		<input type="checkbox"/> 3. CONTAINER IN-141	<input type="checkbox"/> 7. COOLER TEMP. deg C
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. OTHER

Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	

Project Name: LAUSD Roosevelt HS		Quote No: E16I131		Special Instructions/Comments:	
Project No.: 265642.000 / TA02		PO #: 100816			
Sampler: Warren Horne					
ITEM	Lab. No.	Sample ID / Location	Date	Time	Remarks
1	1603543-01	F-11 - 0.5'	10/8/16	0810	HOLD
2	02	F-11 - 2.5'	10/8/16	0817	HOLD
3	03	F-10 - 0.5'	10/8/16	0822	HOLD
4	04	F-10 - 2.5'	10/8/16	0831	HOLD
5	05	E-11 - 0.5'	10/8/16	0835	HOLD
6	06	E-11 - 2.5'	10/8/16	0845	HOLD
7	07	E-10 - 0.5'	10/8/16	0848	HOLD
8	08	E-10 - 2.5'	10/8/16	0854	HOLD
9	09	F-9 - 0.5'	10/8/16	0859	HOLD
10	10	F-9 - 2.5'	10/8/16	0910	HOLD

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container	
8260 / 624 (Volatiles)	8015 (GRO)	8015 (GRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)
6010 / 7000 (Title 22 Metals)	TO-15	AS EPA 6010 B	PA EPA 6010 B	EPA 8081 A	EPA 8082
SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	
QA/QC	Caltrans	Legal	RW/QCB	Level IV	
Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-HCl	Material: 1-Glass, 2-Plastic, 3-Metal	Type: 1-Tube, 2-Vial, 3-Bottle, 4-Pail	Size: 1-Liter, 2-Quart, 3-Gallon		

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature	
Submitter Print Name		Date: 10/8/16	
Relinquished by: Warren Horne		Time: 1:17	
Relinquished by: Kelly Keller		Date: 10/8/16	
Relinquished by: Kelly Keller		Time: 1:17	



CHAIN OF CUSTODY RECORD

Page III of V

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

For Laboratory Use Only		ATL/COC Ver. 201.02/15	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (3:1)	<input type="checkbox"/> Y <input type="checkbox"/> N
		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Instruction: Complete all shaded areas.

Company:	TRC Solutions, Inc.	Address:	9685 Research Drive	City:	Irvine	State:	CA	Zip:	92618
Attn:	John Nordenstam	Email:	jnordenstam@trcsolutions.com	Company:	TRC Solutions, Inc.	Address:	9685 Research Drive	City:	Irvine
Attn:	John Nordenstam	Email:	jnordenstam@trcsolutions.com	Company:	TRC Solutions, Inc.	Address:	9685 Research Drive	City:	Irvine
Attn:	John Nordenstam	Email:	jnordenstam@trcsolutions.com	Company:	TRC Solutions, Inc.	Address:	9685 Research Drive	City:	Irvine

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603543-21	C-10-0.5'		10/8/16	1044	TO-15 EPA 8081A EPA 8081B EPA 8082		51514	QA/QC <input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB <input type="checkbox"/> Level IV
2	-22	C-10-2.5'		10/8/16	1050				HOLD
3	-23	C-9-0.5'		10/8/16	1100				HOLD
4	-24	C-9-2.5'		10/8/16	1120				HOLD
5	-25	B-11-0.5'		10/8/16	1129				HOLD
6	-26	B-11-2.5'		10/8/16	1134				HOLD
7	-27	B-10-0.5'	DUP	10/8/16	1149				HOLD
8	-28	B-10-2.5'		10/8/16	1153				HOLD
9	-29	B-9-0.5'		10/8/16	1214				HOLD
10	-30	B-9-2.5'		10/8/16	1220				HOLD

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Signature	
Submitter Print Name	
Date: 10/8/16 Time: 1601	
Received by: (Signature and Printed Name)	
Date: 10/8/16 Time: 1717	
Received by: (Signature and Printed Name)	
Date: 10/8/16 Time: 1717	

CHAIN OF CUSTODY RECORD

Page IV of V

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADPACK (VOC)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER IN-TACT	<input type="checkbox"/> 7. COOLANT TEMP. log C
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. SCALED

Company: **TRC Solutions, Inc** Address: **9685 Research Drive** Tel: **949-341-7467**
 City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**
 Attn: **John Nordenstam jnordenstam@trcsolutions.com** Email: _____
 Company: **TRC Solutions, Inc** Address: **9685 Research Drive** State: **CA** Zip: **92618**
 City: **Irvine** State: **CA** Zip: **92618**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Special Instructions/Comments	Endicore or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603543-31	I-13-0.5'		10/8/16	1305		8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	Soil: 1. Tube, 2. Vial, 3. Canister	Preservative: 1. HCL, 2. HNO3, 3. H2SO4, 4. HCl
2	32	I-13-0.5'		10/8/16	1332		8082 (PCBs)	WATER - STORM / WASTE	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
3	33	I-13-2.5'		10/8/16	1344		8081 (Organochlorine Pesticides)	WATER - DRINKING / GROUND	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
4	34	I-13-2.5'		10/8/16	1347		8270 (Semi-volatiles)	SOILS / WIFE / FILTER	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
5	35	G-13-0.5'		10/8/16	1408		8015 (GRO)	SOIL / SEDIMENT / SLUDGE	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
6	36	G-13-2.5'		10/8/16	1415		8015 (GRO)	SOIL / SEDIMENT / SLUDGE	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
7	37	F-13-0.5'		10/8/16	1426		8015 (GRO)	SOIL / SEDIMENT / SLUDGE	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
8	38	F-13-2.5'		10/8/16	1434		8015 (GRO)	SOIL / SEDIMENT / SLUDGE	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
9	39	E-13-0.5'		10/8/16	1444		8015 (GRO)	SOIL / SEDIMENT / SLUDGE	Soil: 1. Tube, 2. Vial, 3. Canister	Legal
10	40	E-13-2.5'		10/8/16	1450		8015 (GRO)	SOIL / SEDIMENT / SLUDGE	Soil: 1. Tube, 2. Vial, 3. Canister	Legal

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Received by: (Signature and Printed Name) **John Nordenstam** Date: **10/8/16** Time: **1604**
 Received by: (Signature and Printed Name) **John Nordenstam** Date: **10/8/16** Time: **1717**
 Received by: (Signature and Printed Name) **John Nordenstam** Date: **10/8/16** Time: **1717**

CHAIN OF CUSTODY RECORD

Page V of V

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> On/Off	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 2. DRY
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 3. HEADSPACE (24)	<input type="checkbox"/> 4. PRE-SEALED
<input type="checkbox"/> Other:		<input type="checkbox"/> 5. CONTAINER INTACT	<input type="checkbox"/> 6. COOLER TEMP. LOG-G
<input type="checkbox"/> Sealed		<input type="checkbox"/> 7. Sealed	<input type="checkbox"/> 8. Sealed

Company: TRC Solutions Inc Address: 9685 Research Drive Tel: 949-341-7467

City: Irvine State: CA Zip: 92618 Fax: 949-727-7311

Attn: John Nardenstam Email: john.nardenstam@trcsolutions.com

Company: TRC Solutions, Inc

Address: 9685 Research Drive

City: Irvine State: CA Zip: 92618

Project Name:		Quote No.:	Special Instructions/Comments:	
LAUSD Roosevelt HS		E161131		
Project No.:	265642.0000/TA02	PO #:		
Sampler:	Warren Howe	100816		

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603543-41	D-13-0.5'		10/8/16	1509
2	42	D-13-2.5'		10/8/16	1515
3	43	TB-1-10/8/16		10/8/16	1521
4					
5					
6					
7					
8					
9					
10					

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	SOIL / SEDIMENT / SLUDGE	<input type="checkbox"/> Routine
8015 (GRO)	WATER - DRINKING / GROUND	WATER - DRINKING / GROUND	<input type="checkbox"/> Caltrans
8015 (DRO)	WATER - STORM / WASTE	WATER - STORM / WASTE	<input type="checkbox"/> Legal
8270 (Semi-volatiles)	SOILS / WIFE / FILTER	SOILS / WIFE / FILTER	<input type="checkbox"/> RW/QCB
8081 (Organochlorine Pesticides)	AQUEOUS / LAYERED - OIL	AQUEOUS / LAYERED - OIL	<input type="checkbox"/> Level IV
8082 (PCBs)			
6010 / 7000 (Title 22 Metals)			
TO-15			
AS EPA 6010B			
EPA 8081A			
EPA 8082			

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601

Relinquished by: (Signature and Printed Name) Kelly Keller Date: 10/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) John Nardenstam Date: 10/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601

Relinquished by: (Signature and Printed Name) Kelly Keller Date: 10/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) John Nardenstam Date: 10/8/16 Time: 1717



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603543

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 08, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
F-11-0.5'	1603543-01	Soil	10/08/16 8:10	10/08/16 17:17
F-11-2.5'	1603543-02	Soil	10/08/16 8:17	10/08/16 17:17
F-10-0.5'	1603543-03	Soil	10/08/16 8:22	10/08/16 17:17
F-10-2.5'	1603543-04	Soil	10/08/16 8:31	10/08/16 17:17
E-11-0.5'	1603543-05	Soil	10/08/16 8:35	10/08/16 17:17
E-11-2.5'	1603543-06	Soil	10/08/16 8:45	10/08/16 17:17
E-10-0.5'	1603543-07	Soil	10/08/16 8:48	10/08/16 17:17
E-10-2.5'	1603543-08	Soil	10/08/16 8:54	10/08/16 17:17
F-9-0.5'	1603543-09	Soil	10/08/16 8:59	10/08/16 17:17
F-9-2.5'	1603543-10	Soil	10/08/16 9:10	10/08/16 17:17
E-9-0.5'	1603543-11	Soil	10/08/16 9:19	10/08/16 17:17
E-9-2.5'	1603543-12	Soil	10/08/16 9:25	10/08/16 17:17
D-11-0.5'	1603543-13	Soil	10/08/16 9:54	10/08/16 17:17
D-11-2.5'	1603543-14	Soil	10/08/16 10:00	10/08/16 17:17
D-10-0.5'	1603543-15	Soil	10/08/16 9:39	10/08/16 17:17
D-10-2.5'	1603543-16	Soil	10/08/16 9:45	10/08/16 17:17
D-9-0.5'	1603543-17	Soil	10/08/16 10:06	10/08/16 17:17
D-9-2.5'	1603543-18	Soil	10/08/16 10:12	10/08/16 17:17
C-11-0.5'	1603543-19	Soil	10/08/16 10:29	10/08/16 17:17
C-11-2.5'	1603543-20	Soil	10/08/16 10:34	10/08/16 17:17
C-10-0.5'	1603543-21	Soil	10/08/16 10:44	10/08/16 17:17
C-10-2.5'	1603543-22	Soil	10/08/16 10:50	10/08/16 17:17
C-9-0.5'	1603543-23	Soil	10/08/16 11:00	10/08/16 17:17
C-9-2.5'	1603543-24	Soil	10/08/16 11:20	10/08/16 17:17
B-11-0.5'	1603543-25	Soil	10/08/16 11:29	10/08/16 17:17
B-11-2.5'	1603543-26	Soil	10/08/16 11:34	10/08/16 17:17
B-10-0.5'	1603543-27	Soil	10/08/16 11:49	10/08/16 17:17
B-10-2.5'	1603543-28	Soil	10/08/16 11:53	10/08/16 17:17
B-9-0.5'	1603543-29	Soil	10/08/16 12:14	10/08/16 17:17
B-9-2.5'	1603543-30	Soil	10/08/16 12:20	10/08/16 17:17
I-13-0.5'	1603543-31	Soil	10/08/16 13:05	10/08/16 17:17
H-13-0.5'	1603543-32	Soil	10/08/16 13:32	10/08/16 17:17
H-13-2.5'	1603543-33	Soil	10/08/16 13:44	10/08/16 17:17
I-13-2.5'	1603543-34	Soil	10/08/16 13:47	10/08/16 17:17
G-13-0.5'	1603543-35	Soil	10/08/16 14:08	10/08/16 17:17
G-13-2.5'	1603543-36	Soil	10/08/16 14:15	10/08/16 17:17
F-13-0.5'	1603543-37	Soil	10/08/16 14:26	10/08/16 17:17



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

F-13-2.5'	1603543-38	Soil	10/08/16 14:34	10/08/16 17:17
E-13-0.5'	1603543-39	Soil	10/08/16 14:44	10/08/16 17:17
E-13-2.5'	1603543-40	Soil	10/08/16 14:50	10/08/16 17:17
D-13-0.5'	1603543-41	Soil	10/08/16 15:09	10/08/16 17:17
D-13-2.5'	1603543-42	Soil	10/08/16 15:15	10/08/16 17:17
EB-1-10/8/16	1603543-43	Water	10/08/16 15:21	10/08/16 17:17
F-9-0.5' DUP	1603543-44	Soil	10/08/16 8:59	10/08/16 17:17
D-9-2.5' DUP	1603543-45	Soil	10/08/16 10:12	10/08/16 17:17
B-10-0.5' DUP	1603543-46	Soil	10/08/16 11:49	10/08/16 17:17
G-13-2.5' DUP	1603543-47	Soil	10/08/16 14:15	10/08/16 17:17

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Client Sample ID F-11-0.5'

Lab ID: 1603543-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 14:56	
Lead	23	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 14:56	



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Client Sample ID F-11-2.5'

Lab ID: 1603543-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.97	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 09:47	J
Lead	7.2	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 09:47	



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Client Sample ID F-10-0.5'

Lab ID: 1603543-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 14:58	
Lead	34	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 14:58	



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Client Sample ID F-10-2.5'

Lab ID: 1603543-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 09:51	
Lead	43	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 09:51	



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Client Sample ID E-11-0.5'

Lab ID: 1603543-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 14:59	
Lead	26	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 14:59	



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Client Sample ID E-11-2.5'

Lab ID: 1603543-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.6	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 09:53	
Lead	24	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 09:53	



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Client Sample ID E-10-0.5'

Lab ID: 1603543-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 15:00	
Lead	18	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 15:00	



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Client Sample ID E-10-2.5'

Lab ID: 1603543-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 09:54	
Lead	16	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 09:54	



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Client Sample ID F-9-0.5'

Lab ID: 1603543-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 15:01	
Lead	24	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 15:01	



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Client Sample ID F-9-2.5'

Lab ID: 1603543-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 09:55	
Lead	34	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 09:55	



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Client Sample ID E-9-0.5'

Lab ID: 1603543-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0471	10/17/2016	10/18/16 15:02	
Lead	24	1.0	0.11	1	B6J0471	10/17/2016	10/18/16 15:02	



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Client Sample ID E-9-2.5'

Lab ID: 1603543-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 09:58	
Lead	16	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 09:58	



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Client Sample ID D-11-0.5'

Lab ID: 1603543-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:09	
Lead	18	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:09	



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Client Sample ID D-11-2.5'

Lab ID: 1603543-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:00	
Lead	41	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:00	



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Client Sample ID D-10-0.5'

Lab ID: 1603543-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:13	
Lead	25	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:13	



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Client Sample ID D-10-2.5'

Lab ID: 1603543-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:01	
Lead	56	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:01	



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Client Sample ID D-9-0.5'

Lab ID: 1603543-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:14	
Lead	28	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:14	



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Client Sample ID D-9-2.5'

Lab ID: 1603543-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 09:55	
Lead	28	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 09:55	



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Client Sample ID C-11-0.5'

Lab ID: 1603543-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:15	
Lead	18	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:15	



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Client Sample ID C-11-2.5'

Lab ID: 1603543-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:02	
Lead	14	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:02	



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Client Sample ID C-10-0.5'

Lab ID: 1603543-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:16	
Lead	23	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:16	



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Client Sample ID C-10-2.5'

Lab ID: 1603543-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:03	
Lead	9.7	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:03	



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Client Sample ID C-9-0.5'

Lab ID: 1603543-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:20	
Lead	12	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:20	



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Client Sample ID C-9-2.5'

Lab ID: 1603543-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:04	
Lead	8.6	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:04	



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Client Sample ID B-11-0.5'

Lab ID: 1603543-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:21	
Lead	39	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:21	



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Client Sample ID B-11-2.5'

Lab ID: 1603543-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:05	
Lead	5.4	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:05	



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Client Sample ID B-10-0.5'

Lab ID: 1603543-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:22	
Lead	43	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:22	



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Client Sample ID B-10-2.5'

Lab ID: 1603543-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:06	
Lead	65	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:06	



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Client Sample ID B-9-0.5'

Lab ID: 1603543-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:23	
Lead	20	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:23	



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Client Sample ID B-9-2.5'

Lab ID: 1603543-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:07	
Lead	30	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:07	



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Client Sample ID I-13-0.5'

Lab ID: 1603543-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:25	
Lead	5.9	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:25	



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Client Sample ID H-13-0.5'

Lab ID: 1603543-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:26	
Lead	48	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:26	



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Client Sample ID H-13-2.5'

Lab ID: 1603543-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:08	
Lead	2.7	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:08	



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Client Sample ID I-13-2.5'

Lab ID: 1603543-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	0.70	1	B6K0036	11/02/2016	11/03/16 10:35	
Lead	1.6	1.0	0.11	1	B6K0036	11/02/2016	11/03/16 10:35	



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Client Sample ID G-13-0.5'

Lab ID: 1603543-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:27	
Lead	10	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:27	



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Client Sample ID G-13-2.5'

Lab ID: 1603543-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:10	
Lead	3.7	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:10	



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Client Sample ID F-13-0.5'

Lab ID: 1603543-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:28	
Lead	12	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:28	



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Client Sample ID F-13-2.5'

Lab ID: 1603543-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:39	
Lead	30	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:39	



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Client Sample ID E-13-0.5'

Lab ID: 1603543-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:29	
Lead	40	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:29	



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Client Sample ID E-13-2.5'

Lab ID: 1603543-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.88	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:43	J
Lead	3.4	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:43	



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Client Sample ID D-13-0.5'

Lab ID: 1603543-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0472	10/17/2016	10/18/16 15:30	
Lead	43	1.0	0.11	1	B6J0472	10/17/2016	10/18/16 15:30	



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Client Sample ID D-13-2.5'

Lab ID: 1603543-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:44	
Lead	18	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:44	



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Client Sample ID EB-1-10/8/16

Lab ID: 1603543-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0418	10/14/2016	10/14/16 14:20	
Lead	ND	0.0050	0.0028	1	B6J0418	10/14/2016	10/14/16 14:20	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
4,4'-DDE	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
4,4'-DDT	ND	0.05	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
Aldrin	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
alpha-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
alpha-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
beta-BHC	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Chlordane	ND	0.25	0.03	1	B6J0332	10/12/2016	10/12/16 12:16	
delta-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
Dieldrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endosulfan I	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endosulfan II	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Endrin aldehyde	ND	0.05	0.006	1	B6J0332	10/12/2016	10/12/16 12:16	
Endrin ketone	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
gamma-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
gamma-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Heptachlor	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:16	
Methoxychlor	ND	0.25	0.004	1	B6J0332	10/12/2016	10/12/16 12:16	
Toxaphene	ND	2.5	0.23	1	B6J0332	10/12/2016	10/12/16 12:16	
Surrogate: Decachlorobiphenyl	43.0 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:16	
Surrogate: Tetrachloro-m-xylene	69.1 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:16	



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Report To : John Nordenstam

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Client Sample ID EB-1-10/8/16

Lab ID: 1603543-43

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1221	ND	1.0	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1232	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1242	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1248	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1254	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1260	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1262	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Aroclor 1268	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:05	
Surrogate: Decachlorobiphenyl	47.9 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:05	
Surrogate: Tetrachloro-m-xylene	77.9 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:05	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-9-0.5' DUP

Lab ID: 1603543-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:35	
Lead	23	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:35	



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Client Sample ID D-9-2.5' DUP

Lab ID: 1603543-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:13	
Lead	34	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:13	



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Client Sample ID B-10-0.5' DUP

Lab ID: 1603543-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.0	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:08	D1
Lead	55	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:08	D1



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Client Sample ID G-13-2.5' DUP

Lab ID: 1603543-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:17	
Lead	4.0	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:17	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0418 - EPA 3010A_W

Blank (B6J0418-BLK1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0418-BS1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	0.967790	0.010	1.00000		96.8	80 - 120			
Lead	0.981258	0.0050	1.00000		98.1	80 - 120			

Duplicate (B6J0418-DUP1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0418-MS1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.28443	0.010	2.50000	ND	91.4	74 - 123			
Lead	2.32926	0.0050	2.50000	ND	93.2	78 - 109			

Matrix Spike Dup (B6J0418-MSD1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.21269	0.010	2.50000	ND	88.5	74 - 123	3.19	20	
Lead	2.26268	0.0050	2.50000	ND	90.5	78 - 109	2.90	20	



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Report To : John Nordenstam

Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0471 - EPA 3050B_S

Blank (B6J0471-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	ND	1.0			NR				
Lead	0.258797	1.0			NR				J

LCS (B6J0471-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	41.0040	1.0	50.0000		82.0	80 - 120			
Lead	42.2924	1.0	50.0000		84.6	80 - 120			

Duplicate (B6J0471-DUP1)

Source: 1603431-74

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	2.29835	1.0		2.07570	NR		10.2	20	
Lead	430.244	1.0		421.926	NR		1.95	20	

Matrix Spike (B6J0471-MS1)

Source: 1603431-74

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	99.4260	1.0	125.628	2.07570	77.5	59 - 103			
Lead	578.613	1.0	125.628	421.926	125	34 - 129			

Matrix Spike Dup (B6J0471-MSD1)

Source: 1603431-74

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	100.532	1.0	125.000	2.07570	78.8	59 - 103	1.11	20	
Lead	582.008	1.0	125.000	421.926	128	34 - 129	0.585	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0472 - EPA 3050B_S

Blank (B6J0472-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	ND	1.0			NR				
Lead	0.267933	1.0			NR				J

LCS (B6J0472-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	49.4437	1.0	50.0000		98.9	80 - 120			
Lead	51.5591	1.0	50.0000		103	80 - 120			

Duplicate (B6J0472-DUP1)

Source: 1603543-13

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	4.00579	1.0		4.05663	NR		1.26	20	
Lead	19.6959	1.0		18.0006	NR		8.99	20	

Matrix Spike (B6J0472-MS1)

Source: 1603543-13

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	99.6710	1.0	125.000	4.05663	76.5	59 - 103			
Lead	112.536	1.0	125.000	18.0006	75.6	34 - 129			

Matrix Spike Dup (B6J0472-MSD1)

Source: 1603543-13

Prepared: 10/17/2016 Analyzed: 10/18/2016

Arsenic	92.8160	1.0	125.000	4.05663	71.0	59 - 103	7.12	20	
Lead	107.949	1.0	125.000	18.0006	72.0	34 - 129	4.16	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0567 - EPA 3050B_S

Blank (B6J0567-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0567-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	46.9369	1.0	50.0000		93.9	80 - 120			
Lead	47.4370	1.0	50.0000		94.9	80 - 120			

Duplicate (B6J0567-DUP1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	10		ND	NR			20	
Lead	30.6479	10		23.1921	NR		27.7	20	R

Matrix Spike (B6J0567-MS1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	121.299	5.0	125.000	3.69901	94.1	59 - 103			
Lead	155.509	5.0	125.000	23.1921	106	34 - 129			

Matrix Spike Dup (B6J0567-MSD1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	117.649	5.0	125.000	3.69901	91.2	59 - 103	3.06	20	
Lead	148.279	5.0	125.000	23.1921	100	34 - 129	4.76	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0036 - EPA 3050B_S

Blank (B6K0036-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	0.183952	1.0			NR				J

LCS (B6K0036-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	44.9077	1.0	50.0000		89.8	80 - 120			
Lead	47.4583	1.0	50.0000		94.9	80 - 120			

Duplicate (B6K0036-DUP1)

Source: 1603543-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	1.54196	1.0		0.971258	NR		45.4	20	R
Lead	7.09580	1.0		7.16341	NR		0.948	20	

Matrix Spike (B6K0036-MS1)

Source: 1603543-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	97.6722	1.0	125.000	0.971258	77.4	59 - 103			
Lead	102.843	1.0	125.000	7.16341	76.5	34 - 129			

Matrix Spike Dup (B6K0036-MSD1)

Source: 1603543-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	98.2624	1.0	125.000	0.971258	77.8	59 - 103	0.602	20	
Lead	105.789	1.0	125.000	7.16341	78.9	34 - 129	2.82	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0037 - EPA 3050B_S

Blank (B6K0037-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0037-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	45.6807	1.0	50.0000		91.4	80 - 120			
Lead	47.9059	1.0	50.0000		95.8	80 - 120			

Duplicate (B6K0037-DUP1)

Source: 1603543-38

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	1.91968	1.0		2.18944	NR		13.1	20	
Lead	26.4058	1.0		29.8832	NR		12.4	20	

Matrix Spike (B6K0037-MS1)

Source: 1603543-38

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	99.0382	1.0	125.000	2.18944	77.5	59 - 103			
Lead	125.214	1.0	125.000	29.8832	76.3	34 - 129			

Matrix Spike Dup (B6K0037-MSD1)

Source: 1603543-38

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	97.4652	1.0	125.000	2.18944	76.2	59 - 103	1.60	20	
Lead	135.706	1.0	125.000	29.8832	84.7	34 - 129	8.04	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0332-BLK1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3495		0.500000		69.9	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3986		0.500000		79.7	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4142		0.500000		82.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4376		0.500000		87.5	14 - 122		

LCS (B6J0332-BS1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.406435	0.05	0.500000		81.3	59 - 109		
4,4'-DDD [2C]	0.418670	0.05	0.500000		83.7	59 - 109		
4,4'-DDE	0.411130	0.05	0.500000		82.2	63 - 101		
4,4'-DDE [2C]	0.411210	0.05	0.500000		82.2	63 - 101		
4,4'-DDT	0.267165	0.05	0.500000		53.4	36 - 96		
4,4'-DDT [2C]	0.291695	0.05	0.500000		58.3	36 - 96		
Aldrin	0.417880	0.02	0.500000		83.6	64 - 96		
Aldrin [2C]	0.425215	0.02	0.500000		85.0	64 - 96		
alpha-BHC	0.415650	0.02	0.500000		83.1	63 - 92		
alpha-BHC [2C]	0.428550	0.02	0.500000		85.7	63 - 92		
alpha-Chlordane	0.401385	0.02	0.500000		80.3	63 - 101		
alpha-Chlordane [2C]	0.404315	0.02	0.500000		80.9	63 - 101		
beta-BHC	0.402630	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.418125	0.02	0.500000		83.6	58 - 95		
delta-BHC	0.296250	0.02	0.500000		59.2	37 - 107		
delta-BHC [2C]	0.302675	0.02	0.500000		60.5	37 - 107		
Dieldrin	0.417180	0.05	0.500000		83.4	62 - 102		
Dieldrin [2C]	0.421635	0.05	0.500000		84.3	62 - 102		
Endosulfan I	0.399945	0.02	0.500000		80.0	61 - 97		
Endosulfan I [2C]	0.406900	0.02	0.500000		81.4	61 - 97		
Endosulfan II	0.404650	0.05	0.500000		80.9	61 - 103		
Endosulfan II [2C]	0.398985	0.05	0.500000		79.8	61 - 103		
Endosulfan sulfate	0.349275	0.05	0.500000		69.9	60 - 112		
Endosulfan Sulfate [2C]	0.365450	0.05	0.500000		73.1	60 - 112		
Endrin	0.470725	0.05	0.500000		94.1	62 - 103		
Endrin [2C]	0.482695	0.05	0.500000		96.5	62 - 103		
Endrin aldehyde	0.376935	0.05	0.500000		75.4	64 - 116		
Endrin aldehyde [2C]	0.383165	0.05	0.500000		76.6	64 - 116		
Endrin ketone	0.346120	0.05	0.500000		69.2	56 - 113		
Endrin ketone [2C]	0.359040	0.05	0.500000		71.8	56 - 113		
gamma-BHC	0.416855	0.02	0.500000		83.4	64 - 95		
gamma-BHC [2C]	0.428785	0.02	0.500000		85.8	64 - 95		



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0332-BS1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

gamma-Chlordane	0.398875	0.02	0.500000		79.8	64 - 99		
gamma-Chlordane [2C]	0.401970	0.02	0.500000		80.4	64 - 99		
Heptachlor	0.403775	0.02	0.500000		80.8	64 - 93		
Heptachlor [2C]	0.411645	0.02	0.500000		82.3	64 - 93		
Heptachlor epoxide	0.407030	0.02	0.500000		81.4	65 - 98		
Heptachlor epoxide [2C]	0.415800	0.02	0.500000		83.2	65 - 98		
Methoxychlor	0.283360	0.25	0.500000		56.7	0 - 141		
Methoxychlor [2C]	0.320960	0.25	0.500000		64.2	0 - 141		
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3916</i>		<i>0.500000</i>		<i>78.3</i>	<i>7 - 127</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.4032</i>		<i>0.500000</i>		<i>80.6</i>	<i>7 - 127</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4181</i>		<i>0.500000</i>		<i>83.6</i>	<i>14 - 122</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4563</i>		<i>0.500000</i>		<i>91.3</i>	<i>14 - 122</i>		

LCS Dup (B6J0332-BSD1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.396620	0.05	0.500000		79.3	59 - 109	2.44	20
4,4'-DDD [2C]	0.405160	0.05	0.500000		81.0	59 - 109	3.28	20
4,4'-DDE	0.401385	0.05	0.500000		80.3	63 - 101	2.40	20
4,4'-DDE [2C]	0.398485	0.05	0.500000		79.7	63 - 101	3.14	20
4,4'-DDT	0.262370	0.05	0.500000		52.5	36 - 96	1.81	20
4,4'-DDT [2C]	0.280405	0.05	0.500000		56.1	36 - 96	3.95	20
Aldrin	0.406225	0.02	0.500000		81.2	64 - 96	2.83	20
Aldrin [2C]	0.410325	0.02	0.500000		82.1	64 - 96	3.56	20
alpha-BHC	0.403465	0.02	0.500000		80.7	63 - 92	2.98	20
alpha-BHC [2C]	0.413065	0.02	0.500000		82.6	63 - 92	3.68	20
alpha-Chlordane	0.390295	0.02	0.500000		78.1	63 - 101	2.80	20
alpha-Chlordane [2C]	0.391205	0.02	0.500000		78.2	63 - 101	3.30	20
beta-BHC	0.390770	0.02	0.500000		78.2	58 - 95	2.99	20
beta-BHC [2C]	0.403065	0.02	0.500000		80.6	58 - 95	3.67	20
delta-BHC	0.287245	0.02	0.500000		57.4	37 - 107	3.09	20
delta-BHC [2C]	0.293250	0.02	0.500000		58.6	37 - 107	3.16	20
Dieldrin	0.406965	0.05	0.500000		81.4	62 - 102	2.48	20
Dieldrin [2C]	0.408560	0.05	0.500000		81.7	62 - 102	3.15	20
Endosulfan I	0.390960	0.02	0.500000		78.2	61 - 97	2.27	20
Endosulfan I [2C]	0.395850	0.02	0.500000		79.2	61 - 97	2.75	20
Endosulfan II	0.396670	0.05	0.500000		79.3	61 - 103	1.99	20
Endosulfan II [2C]	0.387015	0.05	0.500000		77.4	61 - 103	3.05	20
Endosulfan sulfate	0.343820	0.05	0.500000		68.8	60 - 112	1.57	20
Endosulfan Sulfate [2C]	0.356380	0.05	0.500000		71.3	60 - 112	2.51	20
Endrin	0.461280	0.05	0.500000		92.3	62 - 103	2.03	20
Endrin [2C]	0.468460	0.05	0.500000		93.7	62 - 103	2.99	20
Endrin aldehyde	0.370645	0.05	0.500000		74.1	64 - 116	1.68	20



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0332-BSD1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Endrin aldehyde [2C]	0.378480	0.05	0.500000		75.7	64 - 116	1.23	20	
Endrin ketone	0.337815	0.05	0.500000		67.6	56 - 113	2.43	20	
Endrin ketone [2C]	0.346240	0.05	0.500000		69.2	56 - 113	3.63	20	
gamma-BHC	0.404790	0.02	0.500000		81.0	64 - 95	2.94	20	
gamma-BHC [2C]	0.414240	0.02	0.500000		82.8	64 - 95	3.45	20	
gamma-Chlordane	0.387960	0.02	0.500000		77.6	64 - 99	2.77	20	
gamma-Chlordane [2C]	0.389675	0.02	0.500000		77.9	64 - 99	3.11	20	
Heptachlor	0.393130	0.02	0.500000		78.6	64 - 93	2.67	20	
Heptachlor [2C]	0.398780	0.02	0.500000		79.8	64 - 93	3.17	20	
Heptachlor epoxide	0.398080	0.02	0.500000		79.6	65 - 98	2.22	20	
Heptachlor epoxide [2C]	0.404040	0.02	0.500000		80.8	65 - 98	2.87	20	
Methoxychlor	0.277810	0.25	0.500000		55.6	0 - 141	1.98	20	
Methoxychlor [2C]	0.311890	0.25	0.500000		62.4	0 - 141	2.87	20	
Surrogate: Decachlorobiphenyl	0.3830		0.500000		76.6	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3757		0.500000		75.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4058		0.500000		81.2	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4393		0.500000		87.9	14 - 122			



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4394 0.500000 87.9 7 - 127
0.4706 0.500000 94.1 14 - 122

LCS (B6J0332-BS2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.09639	0.50	5.00000		81.9	68 - 96			
Aroclor 1260	4.42498	0.50	5.00000		88.5	64 - 106			
Surrogate: Decachlorobiphenyl	0.4399		0.500000		88.0	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4658		0.500000		93.2	14 - 122			

LCS Dup (B6J0332-BSD2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.03858	0.50	5.00000		80.8	68 - 96	1.42	20	
Aroclor 1260	4.38676	0.50	5.00000		87.7	64 - 106	0.868	20	
Surrogate: Decachlorobiphenyl	0.4253		0.500000		85.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4520		0.500000		90.4	14 - 122			



Certificate of Analysis

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Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page I of V

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VDA)	<input type="checkbox"/> 6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C: 3.520
<input type="checkbox"/> Other:		4. SEALED	<input type="checkbox"/>

Company:	TRC Solutions, Inc	Address:	9680 Research Drive	Tel:	949-341-7467
Attn:	John Nordenstam	City:	Irvine	State:	CA
Company:	TRC Solutions, Inc	Zip:	92618	Fax:	949-727-7311
Address:	9685 Research Drive	SEND INVOICE TO:			
City:	Irvine	Attn:	Email:		
State:	CA	Company:			
Zip:	92618	Address:			
		City:			
		State:			
		Zip:			

Project Name:		Quote No:	Special Instructions/Comments:	
LAVSD Roosevelt HS		E16I131		
Project No:	205642.000/TA02	PO #:		
Sampler:	Warren Howe	100816		
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1603543-01	F-11 - 0.5'		0810
2	-02	F-11 - 2.5'		0817
3	-03	F-10 - 0.5'		0822
4	-04	F-10 - 2.5'		0831
5	-05	E-11 - 0.5'		0835
6	-06	E-11 - 2.5'		0845
7	-07	E-10 - 0.5'		0848
8	-08	E-10 - 2.5'		0854
9	-09	F-9 - 0.5'		0859
10	-10	F-9 - 2.5'		0910

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	Type: 1-Tube, 2-VOA, 3-Liter, 4-Pint, 5-Jar, 6-Tedlar, 7 - Canister	<input type="checkbox"/> Routine
8015 (GRO)	WATER - DRINKING / GROUND		<input type="checkbox"/> Caltrans
8015 (DRO)	WATER - STORM / WASTE		<input type="checkbox"/> Legal
8270 (Semi-volatiles)	SOLIDS / WIFE / FILTER		<input type="checkbox"/> RWQCB
8081 (Organochlorine Pesticides)	AQUEOUS / LAVERED - OIL		<input type="checkbox"/> Level IV
8082 (PCBs)			
6010 / 7000 (Title 22 Metals)			
TO-15			
As EPA 6010 B			
Pb EPA 6010 B			
EPA 8081 A			
EPA 8082			

Material:	Preservative:	REMARKS
1=Glass, 2=Plastic, 3=Metal	5=Zn (Ac2), 6=NaOH, 7=HNO3, 8=H2SO4, 9=HCl, 10=H2O2	
		HOLD
		HOLD
		HOLD
		HOLD
		HOLD
		HOLD

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Submitter Print Name: _____

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601
Relinquished by: (Signature and Printed Name) Kelly Keller Date: 10-8-16 Time: 1717
Relinquished by: (Signature and Printed Name) Kelly Keller Date: 10-8-16 Time: 1717

1. Sample received hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following surcharges apply:
TAT = 0: 300% Surcharge SAME BUSINESS DAY (if received by 9:00 AM)
TAT = 1: 50% Surcharge NEXT BUSINESS DAY (if received by 9:00 AM)
TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: 10% Surcharge 5TH BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab - ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for receipt of samples; \$20/sample/week if extended storage is requested.
- All samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$25 per reprocessed EDD.
10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

CHAIN OF CUSTODY RECORD
Page III of V

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt				
		Y	N	Condition	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/>	<input type="checkbox"/>	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/>	<input type="checkbox"/>	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		<input type="checkbox"/>	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:		<input type="checkbox"/>	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

Company: TRC Solutions, Inc. Address: 9685 Research Drive, Irvine, CA 92618 Tel: 949-341-7467 Fax: 949-727-7311

Attn: John Nordenstam Email: jnordenstam@trcsolutions.com

Company: TRC Solutions, Inc. Address: 9685 Research Drive, Irvine, CA 92618

City: Irvine State: CA Zip: 92618

ITEM	Lab No.	Sample ID / Location	Sample Description		Special Instructions/Comments:	
			Quote No:	PO #:		
1	1603543-21	C-10-0.5'	10/8/16	1044		
2	-22	C-10-2.5'	10/8/16	1050		
3	-23	C-9-0.5'	10/8/16	1100		
4	-24	C-9-2.5'	10/8/16	1120		
5	-25	B-11-0.5'	10/8/16	1129		
6	-26	B-11-2.5'	10/8/16	1134		
7	-27	B-10-0.5'	10/8/16	1149		
8	-28	B-10-2.5'	10/8/16	1153		
9	-29	B-9-0.5'	10/8/16	1214		
10	-30	B-9-2.5'	10/8/16	1220		

Encircle or Write Requested Analysis	Encircle Sample Matrix										TAT	Container	QA/QC	REMARKS	
	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL										
8260 / 624 (Volatiles)															
8015 (GRO)															
8015 (DRO)															
8270 (Semi-volatiles)															
8081 (Organochlorine Pesticides)															
8082 (PCBs)															
6010 / 7000 (Title 22 Metals)															
TO-15															
AS EPA 6010 B															
Pb EPA 6010 B															
EPA 8081 A															
EPA 8082															

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: [Signature] Date: 10/8/16

Submitter Print Name: [Name] Signature: [Signature] Date: 10/8/16

Relinquished by: (Signature and Printed Name) Warden Howe Date: 10-8-16 Time: 1601

Relinquished by: (Signature and Printed Name) [Signature] Date: 8/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) [Signature] Date: [Date] Time: [Time]

CHAIN OF CUSTODY RECORD

Page IV of V

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam jnordenstam@trcsolutions.com		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam jnordenstam@trcsolutions.com		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam jnordenstam@trcsolutions.com		City: Irvine		State: CA Zip: 92618	

Project Name: LAUSD Roosevelt HS E16I131		Quote No: E16I131		Special Instructions/Comments:	
Project No: 205642.000/TA02		PO #: 100816			
Sample: Warren Howe					
ITEM	Lab No.	Sample ID / Location	Date	Time	Remarks
1	1603543-31	I-13 - 0.5'	10/8/16	1305	
2	32	I-13 - 0.5'	10/8/16	1332	
3	33	I-13 - 2.5'	10/8/16	1344	
4	34	I-13 - 2.5'	10/8/16	1347	
5	35	G-13 - 0.5'	10/8/16	1408	
6	36	G-13 - 2.5'	10/8/16	1415	
7	37	F-13 - 0.5'	10/8/16	1426	
8	38	F-13 - 2.5'	10/8/16	1434	
9	39	E-13 - 0.5'	10/8/16	1444	
10	40	E-13 - 2.5'	10/8/16	1450	

<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples Submitted AFTER 3:00 PM, are considered received the following business day at 8:00 AM.</p> <p>3. The following surcharges apply to all samples:</p> <p>TAT = 1: 100% Surcharge, SAME BUSINESS DAY (if received by 9:00 AM)</p> <p>TAT = 2: 50% Surcharge, NEXT BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 3: 20% Surcharge, 2ND BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 4: 20% Surcharge, 3RD BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 5: 20% Surcharge, 4TH BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 6: 20% Surcharge, 5TH BUSINESS DAY (COB 5:00 PM)</p> <p>Weekend, holiday, after-hours work - ask for quote.</p> <p>4. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab -- ask for quote.</p> <p>5. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>6. Electronic records maintained for five (5) years from report date.</p> <p>7. Hard copy reports will be disposed of after 45 calendar days from report date.</p> <p>8. Storage and Report fees:</p> <p>- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested.</p> <p>- All samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- Hard copy and regenerated reports (EDDs): \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per repressed EDD.</p> <p>10. Rush TAT/STIC samples: add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>	
--	--	--	--

Relinquished by: Warren Howe	Date: 10-8-16	Time: 1600
Relinquished by: Debra Vella	Date: 10/8/16	Time: 1417
Relinquished by: Debra Vella	Date: 10/8/16	Time: 1417

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Email: jnordenstam@trcsolutions.com		Fax: 949-727-7311	
Address: 9685 Research Drive		City: Irvine		State: CA Zip: 92618	
City: Irvine		State: CA		Zip: 92618	

Project Name: LAUSD Roosevelt HS E16131		Quote No: E16131		Special Instructions/Comments:	
Project No.: 265642, 000/1A02		PO #: 100816		Sample Description	
Sampler: Warren Howe		Lab No.		Sample ID / Location	
ITEM	1	1603543-41	D-13-0.5'	10/8/16	1509
	2	-42	D-13-2.5'	10/8/16	1515
	3	-43	FB-1-10/8/16	10/8/16	1521
	4				
	5				
	6				
	7				
	8				
	9				
	10				

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Date: 10/8/16 Time: 1601

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601

Relinquished by: (Signature and Printed Name) Kelly Kellon Date: 10/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 10, 2016 5:43 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Please see my comments in red below.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Monday, October 10, 2016 1:31 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: LAUSD Roosevelt HS, 265642.0000 / TA02

Hi John,

We have a couple of notes/questions for the samples received last weekend.

- Samples received 10/8- the IB-1-10/8/16 samples is not marked for analysis **Sample ID should be EB-1-10/8/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**
- Sample IB-1-10/9/16 received 10/9- the CoC is marked for EPA 8021, based on your email I believed this should be EPA 8081. **Sample ID should be EB-1-10/9/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**

Please advise. Attached are the CoC's for these samples.

Thank you,

Carmen Aguila
Sample Control



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 245
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 17, 2016 5:50 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: LAUSD Roosevelt HS PEA - Duplicate Samples for October 8 and 9, 2016
Attachments: DOC101716-004.pdf

Rachelle – as per our discussion today, duplicate samples were not collected during the field sampling activities at LAUSD Roosevelt HS on October 8 and 9, 2016. Please pull an aliquot from the following samples to be used as a duplicate sample and perform the analyses as indicated below. Attached are copies of the COCs with the samples marked that should have duplicates.

Samples collected on October 8, 2016

- Sample F-9-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-9-2.5' - HOLD
- Sample B-10-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample G-13-2.5' – HOLD

Samples collected on October 9, 2016

- Sample H-17-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample E-14-2.5' - HOLD
- Sample C-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample B-13-2.5' – HOLD

- Sample F-14-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-14-2.5' – HOLD
- Sample B-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample K-16-2.5' – HOLD

I will be sending you addition instructions for sample compositing and analysis tomorrow. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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CHAIN OF CUSTODY RECORD

Page I of V

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> Fed Ex	<input type="checkbox"/> On Ice	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other	<input type="checkbox"/> 2. HEADSPACE (1:10)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other		<input type="checkbox"/> 3. CONTAINER IN-141	<input type="checkbox"/> 7. COOLER TEMP. deg C
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. OTHER

Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	

Project Name: LAUSD Roosevelt HS		Quote No: E16I131		Special Instructions/Comments:	
Project No: 265642.000 / TA02		PO #: 100816			
Sampler: Warren Howe					
ITEM	Lab No.	Sample ID / Location	Date	Time	Remarks
1	1603543-01	F-11 - 0.5'	10/8/16	0810	HOLD
2	02	F-11 - 2.5'	10/8/16	0817	HOLD
3	03	F-10 - 0.5'	10/8/16	0822	HOLD
4	04	F-10 - 2.5'	10/8/16	0831	HOLD
5	05	E-11 - 0.5'	10/8/16	0835	HOLD
6	06	E-11 - 2.5'	10/8/16	0845	HOLD
7	07	E-10 - 0.5'	10/8/16	0848	HOLD
8	08	E-10 - 2.5'	10/8/16	0854	HOLD
9	09	F-9 - 0.5'	10/8/16	0859	HOLD
10	10	F-9 - 2.5'	10/8/16	0910	HOLD

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Relinquished by: Warren Howe	Relinquished by: Kelly Keller	Relinquished by: Kelly Keller
Date: 10-8-16	Date: 10/8/16	Date: 10/8/16
Time: 1:17p	Time: 1:17p	Time: 1:17p

CHAIN OF CUSTODY RECORD

Page III of V

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Condition	<input type="checkbox"/> Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 5 # OF SAMPLES MATCH COC	<input type="checkbox"/> N
<input type="checkbox"/> GSO		<input type="checkbox"/> 2. HEADSPACE (3/24)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. log C.
		<input type="checkbox"/> 4. SEALED	

Company: TRC Solutions, Inc.		Address: 9685 Research Drive		City: Irvine		State: CA		Zip: 92618	
Attn: John Nordenstam		Email: jnordenstam@trcsolutions.com		Tel: 949-341-7467		Fax: 949-727-7311			
Company: TRC Solutions, Inc.		Address: 9685 Research Drive		City: Irvine		State: CA		Zip: 92618	
Attn: John Nordenstam		Email: jnordenstam@trcsolutions.com		Tel: 949-341-7467		Fax: 949-727-7311			

Project Name: LAUSD Roosevelt HS		Quote No: EL61131		Special Instructions/Comments:	
Project No: 265642.000/TA02		PO #: 100816			
Sampler: WARDEN HOWE					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603543-21	C-10-0.5'		10/8/16	1044
2	-22	C-10-2.5'		10/8/16	1050
3	-23	C-9-0.5'		10/8/16	1100
4	-24	C-9-2.5'		10/8/16	1120
5	-25	B-11-0.5'		10/8/16	1129
6	-26	B-11-2.5'		10/8/16	1134
7	-27	B-10-0.5'	DUP	10/8/16	1149
8	-28	B-10-2.5'		10/8/16	1153
9	-29	B-9-0.5'		10/8/16	1214
10	-30	B-9-2.5'		10/8/16	1220

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
6010 / 7000 (Title 22 Metals)						<input type="checkbox"/> Routine	<input type="checkbox"/> QA/QC
8082 (PCBs)						<input type="checkbox"/> Caltrans	<input type="checkbox"/> Legal
8081 (Organochlorine Pesticides)						<input type="checkbox"/> RWQCB	<input type="checkbox"/> Level IV
8270 (Semi-volatiles)							
8015 (DRO)							
8015 (GRO)							
8260 / 624 (Volatiles)							

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____

Submitter Print Name: _____

Received by: (Signature and Printed Name) _____

Date: 10-8-16

Time: 1601

Received by: (Signature and Printed Name) _____

Date: 8/8/16

Time: 1717

CHAIN OF CUSTODY RECORD

Page IV of V

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADPACK (VOC)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		3. CONTAINER IN-TACT	<input type="checkbox"/> 7. COOLANT TEMP. log C
		4. SEALED	<input type="checkbox"/> 8. SCALED

Company: **TRC Solutions, Inc** Address: **9685 Research Drive** Tel: **949-341-7467**
 City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**
 Attn: **John Nordenstam jnordenstam@trcsolutions.com** Email: **SEND INVOICE TO:** ☒ Same as SEND REPORT TO
 Company: **TRC Solutions, Inc** Address: **9685 Research Drive** State: **CA** Zip: **92618**
 City: **Irvine** State: **CA** Zip: **92618**

Project Name: LAUSD Roosevelt HS		Quote No: E16131	Special Instructions/Comments:	
Project No.: 265642.000/1102		PO #: 100816		
Sample: Warren Ave				
ITEM	Lab No.	Sample ID / Location	Date	Time
1	160343-31	I-13-0.5'	10/8/16	1305
2	32	I-13-0.5'	10/8/16	1332
3	33	I-13-2.5'	10/8/16	1344
4	34	I-13-2.5'	10/8/16	1347
5	35	G-13-0.5'	10/8/16	1408
6	36	G-13-2.5'	10/8/16	1415
7	37	F-13-0.5'	10/8/16	1426
8	38	F-13-2.5'	10/8/16	1434
9	39	E-13-0.5'	10/8/16	1444
10	40	E-13-2.5'	10/8/16	1450

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Received by: (Signature and Printed Name) **Wendy Kelly** Date: **10/8/16** Time: **1604**
 Received by: (Signature and Printed Name) **Wendy Kelly** Date: **10/8/16** Time: **1717**
 Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) **Wendy Kelly** Date: **10-8-16** Time: **1604**
 Relinquished by: (Signature and Printed Name) **Wendy Kelly** Date: **10/8/16** Time: **1717**
 Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page V of V

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> On/Off	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 2. OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 3. HEADSPACE (24)	<input type="checkbox"/> 4. PRE-SEALED
<input type="checkbox"/> Other:		<input type="checkbox"/> 5. CONTAINER INTACT	<input type="checkbox"/> 6. COOLER TEMP. LOG-G
<input type="checkbox"/> Sealed		<input type="checkbox"/> 7. Sealed	<input type="checkbox"/> 8. Sealed

Company: TRC Solutions Inc Address: 9685 Research Drive Tel: 949-341-7467

City: Irvine State: CA Zip: 92618 Fax: 949-727-7311

Attn: John Nardenstam Email: john.nardenstam@trcsolutions.com

Company: TRC Solutions, Inc

Address: 9685 Research Drive

City: Irvine State: CA Zip: 92618

Project Name: LAUSD Roosevelt HS E161131 Quote No: 265642.0000/TA02

Project No.: 265642.0000/TA02 PO #: 100816

Sampler: Warren Howe

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603543-41	D-13-0.5'		10/8/16	1509
2	42	D-13-2.5'		10/8/16	1515
3	43	TB-1-10/8/16		10/8/16	1521
4					
5					
6					
7					
8					
9					
10					

Encircle or Write Requested Analysis

8260 / 624 (Volatiles)	
8015 (GRO)	
8015 (DRO)	
8270 (Semi-volatiles)	
8081 (Organochlorine Pesticides)	
8082 (PCBs)	
6010 / 7000 (Title 22 Metals)	
TO-15	

Encircle Sample Matrix

SOIL / SEDIMENT / SLUDGE	
SOLIDS / WIFE / FILTER	
WATER - DRINKING / GROUND	
WATER - STORM / WASTE	
AQUEOUS / LAYERED - OIL	

Container

Type: 1-tube 2-vial 3-liter 4-liter	
Material: 1-Plastic 2-Plastic 3-Metal	

QA/QC

<input type="checkbox"/> Routine	
<input type="checkbox"/> Caltrans	
<input type="checkbox"/> Legal	
<input type="checkbox"/> RW/QCB	
<input type="checkbox"/> Level IV	

REMARKS

HOLD

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601

Relinquished by: (Signature and Printed Name) Kelly Keller Date: 10/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) John Nardenstam Date: 10/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) Warren Howe Date: 10-8-16 Time: 1601

Relinquished by: (Signature and Printed Name) Kelly Keller Date: 10/8/16 Time: 1717

Relinquished by: (Signature and Printed Name) John Nardenstam Date: 10/8/16 Time: 1717

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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October 17, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603544

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 09, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/17/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H-14-0.5	1603544-01	Soil	10/09/16 7:40	10/09/16 16:55
H-15-0.5	1603544-03	Soil	10/09/16 7:40	10/09/16 16:55
H-16-0.5	1603544-05	Soil	10/09/16 8:00	10/09/16 16:55
G-17-0.5	1603544-07	Soil	10/09/16 8:30	10/09/16 16:55
H-17-0.5	1603544-09	Soil	10/09/16 8:20	10/09/16 16:55
G-16-0.5	1603544-11	Soil	10/09/16 9:00	10/09/16 16:55
G-15-0.5	1603544-13	Soil	10/09/16 9:20	10/09/16 16:55
G-14-0.5	1603544-15	Soil	10/09/16 9:38	10/09/16 16:55
E-14-0.5	1603544-17	Soil	10/09/16 9:52	10/09/16 16:55
E-15-0.5	1603544-19	Soil	10/09/16 10:10	10/09/16 16:55
E-16-0.5	1603544-21	Soil	10/09/16 10:05	10/09/16 16:55
E-17-0.5	1603544-23	Soil	10/09/16 10:29	10/09/16 16:55
C-17-0.5	1603544-25	Soil	10/09/16 10:42	10/09/16 16:55
C-16-0.5	1603544-27	Soil	10/09/16 11:00	10/09/16 16:55
C-15-0.5	1603544-29	Soil	10/09/16 11:20	10/09/16 16:55
C-14-0.5	1603544-31	Soil	10/09/16 11:40	10/09/16 16:55
C-13-0.5	1603544-33	Soil	10/09/16 12:00	10/09/16 16:55
B-13-0.5	1603544-35	Soil	10/09/16 12:20	10/09/16 16:55
B-14-0.5	1603544-37	Soil	10/09/16 12:40	10/09/16 16:55
J-14-0.5	1603544-39	Soil	10/09/16 13:00	10/09/16 16:55
K-14-0.5	1603544-41	Soil	10/09/16 13:20	10/09/16 16:55
J-15-0.5	1603544-43	Soil	10/09/16 13:40	10/09/16 16:55
EB-1-10/9/16	1603544-45	Water	10/09/16 14:10	10/09/16 16:55

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/17/2016

Client Sample ID H-14-0.5

Lab ID: 1603544-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0370	10/14/2016	10/17/16 09:56	D1
Lead	28	5.0	0.56	5	B6J0370	10/14/2016	10/17/16 09:56	D1



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Client Sample ID H-15-0.5

Lab ID: 1603544-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 09:00	
Lead	27	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 09:00	



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Client Sample ID H-16-0.5

Lab ID: 1603544-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 09:04	
Lead	33	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 09:04	



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Client Sample ID G-17-0.5

Lab ID: 1603544-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:18	
Lead	48	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:18	



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Reported : 10/17/2016

Client Sample ID H-17-0.5

Lab ID: 1603544-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.3	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:04	
Lead	60	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:04	



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Client Sample ID G-16-0.5

Lab ID: 1603544-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:07	
Lead	26	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:07	



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Client Sample ID G-15-0.5

Lab ID: 1603544-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:10	
Lead	31	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:10	



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Client Sample ID G-14-0.5

Lab ID: 1603544-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:36	
Lead	29	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:36	



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Client Sample ID E-14-0.5

Lab ID: 1603544-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:21	
Lead	27	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:21	



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Client Sample ID E-15-0.5

Lab ID: 1603544-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 10:43	
Lead	20	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 10:43	



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Client Sample ID E-16-0.5

Lab ID: 1603544-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 10:55	
Lead	37	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 10:55	



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Client Sample ID E-17-0.5

Lab ID: 1603544-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 10:59	
Lead	68	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 10:59	



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Client Sample ID C-17-0.5

Lab ID: 1603544-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:02	
Lead	85	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:02	



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Client Sample ID C-16-0.5

Lab ID: 1603544-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:06	
Lead	70	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:06	



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Client Sample ID C-15-0.5

Lab ID: 1603544-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.8	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:16	
Lead	71	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:16	



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Client Sample ID C-14-0.5

Lab ID: 1603544-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.5	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:20	
Lead	44	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:20	



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Client Sample ID C-13-0.5

Lab ID: 1603544-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:23	
Lead	150	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:23	



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Client Sample ID B-13-0.5

Lab ID: 1603544-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	41	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:27	
Lead	96	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:27	



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Reported : 10/17/2016

Client Sample ID B-14-0.5

Lab ID: 1603544-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:30	
Lead	62	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:30	



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Reported : 10/17/2016

Client Sample ID J-14-0.5

Lab ID: 1603544-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:33	
Lead	43	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:33	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/17/2016

Client Sample ID K-14-0.5

Lab ID: 1603544-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:36	
Lead	55	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:36	



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Report To : John Nordenstam
Reported : 10/17/2016

Client Sample ID J-15-0.5

Lab ID: 1603544-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:40	
Lead	64	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:40	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/17/2016

Client Sample ID EB-1-10/9/16

Lab ID: 1603544-45

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0418	10/14/2016	10/14/16 14:21	
Lead	ND	0.0050	0.0028	1	B6J0418	10/14/2016	10/14/16 14:21	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
4,4'-DDE	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
4,4'-DDT	ND	0.05	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
Aldrin	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
alpha-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
alpha-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
beta-BHC	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Chlordane	ND	0.25	0.03	1	B6J0332	10/12/2016	10/12/16 12:27	
delta-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
Dieldrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endosulfan I	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endosulfan II	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endrin aldehyde	ND	0.05	0.006	1	B6J0332	10/12/2016	10/12/16 12:27	
Endrin ketone	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
gamma-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
gamma-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Heptachlor	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Methoxychlor	ND	0.25	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
Toxaphene	ND	2.5	0.23	1	B6J0332	10/12/2016	10/12/16 12:27	
Surrogate: Decachlorobiphenyl	55.6 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:27	
Surrogate: Tetrachloro-m-xylene	80.5 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:27	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/17/2016

Client Sample ID EB-1-10/9/16

Lab ID: 1603544-45

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1221	ND	1.0	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1232	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1242	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1248	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1254	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1260	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1262	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1268	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Surrogate: Decachlorobiphenyl	68.5 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:24	
Surrogate: Tetrachloro-m-xylene	89.3 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:24	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0370 - EPA 3050B_S									
Blank (B6J0370-BLK1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0370-BS1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	43.5811	1.0	50.0000		87.2	80 - 120			
Lead	46.3653	1.0	50.0000		92.7	80 - 120			
Duplicate (B6J0370-DUP1)				Source: 1603423-73		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	4.24103	1.0		4.97712	NR		16.0	20	
Lead	35.0581	1.0		159.895	NR		128	20	R
Matrix Spike (B6J0370-MS1)				Source: 1603423-73		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	84.4050	1.0	125.000	4.97712	63.5	59 - 103			
Lead	162.600	1.0	125.000	159.895	2.16	34 - 129			M1
Matrix Spike Dup (B6J0370-MSD1)				Source: 1603423-73		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	76.5590	1.0	125.000	4.97712	57.3	59 - 103	9.75	20	M1
Lead	121.001	1.0	125.000	159.895	-31.1	34 - 129	29.3	20	M1



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0371 - EPA 3050B_S

Blank (B6J0371-BLK1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0371-BS1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	49.9885	1.0	50.0000		100	80 - 120			
Lead	53.3410	1.0	50.0000		107	80 - 120			

Duplicate (B6J0371-DUP1)

Source: 1603544-19

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	3.48272	1.0		3.13438	NR		10.5	20	
Lead	18.9251	1.0		20.2063	NR		6.55	20	

Matrix Spike (B6J0371-MS1)

Source: 1603544-19

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	105.231	1.0	125.000	3.13438	81.7	59 - 103			
Lead	122.796	1.0	125.000	20.2063	82.1	34 - 129			

Matrix Spike Dup (B6J0371-MSD1)

Source: 1603544-19

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	104.867	1.0	125.000	3.13438	81.4	59 - 103	0.347	20	
Lead	123.053	1.0	125.000	20.2063	82.3	34 - 129	0.209	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0418 - EPA 3010A_W

Blank (B6J0418-BLK1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0418-BS1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	0.967790	0.010	1.00000		96.8	80 - 120			
Lead	0.981258	0.0050	1.00000		98.1	80 - 120			

Duplicate (B6J0418-DUP1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0418-MS1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.28443	0.010	2.50000	ND	91.4	74 - 123			
Lead	2.32926	0.0050	2.50000	ND	93.2	78 - 109			

Matrix Spike Dup (B6J0418-MSD1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.21269	0.010	2.50000	ND	88.5	74 - 123	3.19	20	
Lead	2.26268	0.0050	2.50000	ND	90.5	78 - 109	2.90	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0332-BLK1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3495		0.500000		69.9	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3986		0.500000		79.7	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4142		0.500000		82.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4376		0.500000		87.5	14 - 122		

LCS (B6J0332-BS1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.406435	0.05	0.500000		81.3	59 - 109		
4,4'-DDD [2C]	0.418670	0.05	0.500000		83.7	59 - 109		
4,4'-DDE	0.411130	0.05	0.500000		82.2	63 - 101		
4,4'-DDE [2C]	0.411210	0.05	0.500000		82.2	63 - 101		
4,4'-DDT	0.267165	0.05	0.500000		53.4	36 - 96		
4,4'-DDT [2C]	0.291695	0.05	0.500000		58.3	36 - 96		
Aldrin	0.417880	0.02	0.500000		83.6	64 - 96		
Aldrin [2C]	0.425215	0.02	0.500000		85.0	64 - 96		
alpha-BHC	0.415650	0.02	0.500000		83.1	63 - 92		
alpha-BHC [2C]	0.428550	0.02	0.500000		85.7	63 - 92		
alpha-Chlordane	0.401385	0.02	0.500000		80.3	63 - 101		
alpha-Chlordane [2C]	0.404315	0.02	0.500000		80.9	63 - 101		
beta-BHC	0.402630	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.418125	0.02	0.500000		83.6	58 - 95		
delta-BHC	0.296250	0.02	0.500000		59.2	37 - 107		
delta-BHC [2C]	0.302675	0.02	0.500000		60.5	37 - 107		
Dieldrin	0.417180	0.05	0.500000		83.4	62 - 102		
Dieldrin [2C]	0.421635	0.05	0.500000		84.3	62 - 102		
Endosulfan I	0.399945	0.02	0.500000		80.0	61 - 97		
Endosulfan I [2C]	0.406900	0.02	0.500000		81.4	61 - 97		
Endosulfan II	0.404650	0.05	0.500000		80.9	61 - 103		
Endosulfan II [2C]	0.398985	0.05	0.500000		79.8	61 - 103		
Endosulfan sulfate	0.349275	0.05	0.500000		69.9	60 - 112		
Endosulfan Sulfate [2C]	0.365450	0.05	0.500000		73.1	60 - 112		
Endrin	0.470725	0.05	0.500000		94.1	62 - 103		
Endrin [2C]	0.482695	0.05	0.500000		96.5	62 - 103		
Endrin aldehyde	0.376935	0.05	0.500000		75.4	64 - 116		
Endrin aldehyde [2C]	0.383165	0.05	0.500000		76.6	64 - 116		
Endrin ketone	0.346120	0.05	0.500000		69.2	56 - 113		
Endrin ketone [2C]	0.359040	0.05	0.500000		71.8	56 - 113		
gamma-BHC	0.416855	0.02	0.500000		83.4	64 - 95		
gamma-BHC [2C]	0.428785	0.02	0.500000		85.8	64 - 95		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0332-BS1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

gamma-Chlordane	0.398875	0.02	0.500000		79.8	64 - 99		
gamma-Chlordane [2C]	0.401970	0.02	0.500000		80.4	64 - 99		
Heptachlor	0.403775	0.02	0.500000		80.8	64 - 93		
Heptachlor [2C]	0.411645	0.02	0.500000		82.3	64 - 93		
Heptachlor epoxide	0.407030	0.02	0.500000		81.4	65 - 98		
Heptachlor epoxide [2C]	0.415800	0.02	0.500000		83.2	65 - 98		
Methoxychlor	0.283360	0.25	0.500000		56.7	0 - 141		
Methoxychlor [2C]	0.320960	0.25	0.500000		64.2	0 - 141		
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3916</i>		<i>0.500000</i>		<i>78.3</i>	<i>7 - 127</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.4032</i>		<i>0.500000</i>		<i>80.6</i>	<i>7 - 127</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4181</i>		<i>0.500000</i>		<i>83.6</i>	<i>14 - 122</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4563</i>		<i>0.500000</i>		<i>91.3</i>	<i>14 - 122</i>		

LCS Dup (B6J0332-BSD1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.396620	0.05	0.500000		79.3	59 - 109	2.44	20
4,4'-DDD [2C]	0.405160	0.05	0.500000		81.0	59 - 109	3.28	20
4,4'-DDE	0.401385	0.05	0.500000		80.3	63 - 101	2.40	20
4,4'-DDE [2C]	0.398485	0.05	0.500000		79.7	63 - 101	3.14	20
4,4'-DDT	0.262370	0.05	0.500000		52.5	36 - 96	1.81	20
4,4'-DDT [2C]	0.280405	0.05	0.500000		56.1	36 - 96	3.95	20
Aldrin	0.406225	0.02	0.500000		81.2	64 - 96	2.83	20
Aldrin [2C]	0.410325	0.02	0.500000		82.1	64 - 96	3.56	20
alpha-BHC	0.403465	0.02	0.500000		80.7	63 - 92	2.98	20
alpha-BHC [2C]	0.413065	0.02	0.500000		82.6	63 - 92	3.68	20
alpha-Chlordane	0.390295	0.02	0.500000		78.1	63 - 101	2.80	20
alpha-Chlordane [2C]	0.391205	0.02	0.500000		78.2	63 - 101	3.30	20
beta-BHC	0.390770	0.02	0.500000		78.2	58 - 95	2.99	20
beta-BHC [2C]	0.403065	0.02	0.500000		80.6	58 - 95	3.67	20
delta-BHC	0.287245	0.02	0.500000		57.4	37 - 107	3.09	20
delta-BHC [2C]	0.293250	0.02	0.500000		58.6	37 - 107	3.16	20
Dieldrin	0.406965	0.05	0.500000		81.4	62 - 102	2.48	20
Dieldrin [2C]	0.408560	0.05	0.500000		81.7	62 - 102	3.15	20
Endosulfan I	0.390960	0.02	0.500000		78.2	61 - 97	2.27	20
Endosulfan I [2C]	0.395850	0.02	0.500000		79.2	61 - 97	2.75	20
Endosulfan II	0.396670	0.05	0.500000		79.3	61 - 103	1.99	20
Endosulfan II [2C]	0.387015	0.05	0.500000		77.4	61 - 103	3.05	20
Endosulfan sulfate	0.343820	0.05	0.500000		68.8	60 - 112	1.57	20
Endosulfan Sulfate [2C]	0.356380	0.05	0.500000		71.3	60 - 112	2.51	20
Endrin	0.461280	0.05	0.500000		92.3	62 - 103	2.03	20
Endrin [2C]	0.468460	0.05	0.500000		93.7	62 - 103	2.99	20
Endrin aldehyde	0.370645	0.05	0.500000		74.1	64 - 116	1.68	20



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0332-BSD1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Endrin aldehyde [2C]	0.378480	0.05	0.500000		75.7	64 - 116	1.23	20	
Endrin ketone	0.337815	0.05	0.500000		67.6	56 - 113	2.43	20	
Endrin ketone [2C]	0.346240	0.05	0.500000		69.2	56 - 113	3.63	20	
gamma-BHC	0.404790	0.02	0.500000		81.0	64 - 95	2.94	20	
gamma-BHC [2C]	0.414240	0.02	0.500000		82.8	64 - 95	3.45	20	
gamma-Chlordane	0.387960	0.02	0.500000		77.6	64 - 99	2.77	20	
gamma-Chlordane [2C]	0.389675	0.02	0.500000		77.9	64 - 99	3.11	20	
Heptachlor	0.393130	0.02	0.500000		78.6	64 - 93	2.67	20	
Heptachlor [2C]	0.398780	0.02	0.500000		79.8	64 - 93	3.17	20	
Heptachlor epoxide	0.398080	0.02	0.500000		79.6	65 - 98	2.22	20	
Heptachlor epoxide [2C]	0.404040	0.02	0.500000		80.8	65 - 98	2.87	20	
Methoxychlor	0.277810	0.25	0.500000		55.6	0 - 141	1.98	20	
Methoxychlor [2C]	0.311890	0.25	0.500000		62.4	0 - 141	2.87	20	
Surrogate: Decachlorobiphenyl	0.3830		0.500000		76.6	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3757		0.500000		75.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4058		0.500000		81.2	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4393		0.500000		87.9	14 - 122			



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Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl

0.4394

0.500000

87.9

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4706

0.500000

94.1

14 - 122

LCS (B6J0332-BS2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.09639	0.50	5.00000		81.9	68 - 96			
Aroclor 1260	4.42498	0.50	5.00000		88.5	64 - 106			

Surrogate: Decachlorobiphenyl

0.4399

0.500000

88.0

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4658

0.500000

93.2

14 - 122

LCS Dup (B6J0332-BSD2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.03858	0.50	5.00000		80.8	68 - 96	1.42	20	
Aroclor 1260	4.38676	0.50	5.00000		87.7	64 - 106	0.868	20	

Surrogate: Decachlorobiphenyl

0.4253

0.500000

85.1

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4520

0.500000

90.4

14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/17/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY
LABORATORIES

Page 2 of 5

Company: TRC Solutions Inc		Address: 9685		Tel: 949-341-7467	
		City: IRVINE		Fax: 949-727-7311	
		State: CA		Zip: 92618	
		SEND INVOICE TO:		<input type="checkbox"/> same as SEND REPORT TO	
		SEND REPORT TO:			

Attn:	John Nordenstam	Attn:	
Company:	IRC Solutions, Inc	Company:	
Address:		Address:	
Email:	jnordenstam@trcsolutions.com	Email:	

Address:	9685 Research Drive			Address:			
City:	Irvine	State:	CA	City:		State:	
				Zip:	92618	Zip:	

Project Name: LAUSD Roosevelt HS	Quote No: E16T131	Special Instructions/Comments:
Project No.: 265642.000/TA02	PO #: 100816	
Sampler: Warren Howe		

[illegible]

1	160354-11	G-16-0.5	10/9/16	0900							X					5	1	5	1	4	
2		-12	G-16-2.5	10/9/16	0910											5	1	5	1	4	Hold

[illegible][illegible]

7	-7	E-14-0.5	10/9/16	0952	XX	5	1	5	14	
8	-17	E-11-2 E	10/9/16	1000		5	1	5	14	1419

	-18 E-14 - L'3	10/9/16	1000	X	5	1	5	1	4	Noia
9	-19 E-15 - 0.5	10/9/16	1010	X	5	1	5	1	4	

[illegible]

Our copy reports will be disposed of after 45 calendar days from report date.

9. Storage and Report Fees:

- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested.

TAT = 0 : 300% Surcharge SAME BUSINESS DAY (if received by 9:00 AM)
TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)

- Hard copy and regenerated reports/EODs: \$17.50 per hard copy request; \$50.00 per regenerated/reformat ed report;
\$35 per regenerated EDD
10. Rush TCTP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT + 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab ... ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air

Date:	Time:
Received by: [Signature]	[Initials]

Date:	Time:
Submitted by: [Signature]	[Initials]

Date:	Time:
Reviewed by: [Signature]	[Initials]

Date:	Time:
Approved by: [Signature]	[Initials]

Date:	Time:
Disposal by: [Signature]	[Initials]

Date:	Time:
Finalized by: [Signature]	[Initials]

Date:	Time:
Archived by: [Signature]	[Initials]

Date:	Time:
Released by: [Signature]	[Initials]

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Retrieved by: [Signature]	[Initials]

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Revised by: [Signature]	[Initials]

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Annulled by: [Signature]	[Initials]

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Abandoned by: [Signature]	[Initials]

Date:	Time:
Forfeited by: [Signature]	[Initials]

Date:

[illegible]

Relinquished by: (signature and Printed Name)	Date:	Time:
Received by: (signature and Printed Name)	Date:	Time:

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

1. samples will be disposed of after 14 calendar days after receipt of samples.
2. Electronic records maintained for five (5) years from report date.
3. Hard copy reports will be disposed of after 45 calendar days from report date.
4. Storage and Report Fees:
 - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage is requested.
 - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
 - Hard copy and regenerated report/EODs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per reprocessed EOD and 2 days to analyze TAT for extraction.
10. Unusable samples will incur a disposal fee of \$2 per sample.
11. Unusable samples will incur a disposal fee of \$2 per sample.

Relinquished by: (Signature and Printed Name) Warren Howe	Date: 10/9/16	Time: 1610	Received by: (Signature and Printed Name) Cecilia S. Allen	Date: 10/9/16	Time: 1610
Relinquished by: (Signature and Printed Name) Cecilia S. Allen	Date: 10/9/16	Time: 1655	Received by: (Signature and Printed Name) Gina Rodriguez	Date: 10-9-16	Time: 1655
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

CHAIN OF CUSTODY RECORD

Page 3 of 5

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		Fax: 949-727-5811	
Company: TRC Solutions, Inc		State: CA		Zip: 92618	
Address: 9685 Research Drive		City: Irvine		State: CA	
City: Irvine		Zip: 92618		State: CA	

Project Name: LAUSD Roosevelt HS		Quote No: E16I131		Special Instructions/Comments:	
Project No: 265642000/TA02		PO #: 100816			
Sampler: Warren Howe					
ITEM	Lab No.	Sample ID / Location	Date	Time	Sample Description
1	E-16-0.5 WH	E-16-0.5	10/9/16	1005	
2	E-16-2 WH	E-16-2.5	10/9/16	1010	
3	E-17-0.5 WH	E-17-0.5	10/9/16	1029	
4	E-17-2.5 WH	E-17-2.5	10/9/16	1036	
5	C-17-0.5 WH	C-17-0.5	10/9/16	1042	
6	C-17-2.5 WH	C-17-2.5	10/9/16	1058	
7	C-16-0.5 WH	C-16-0.5	10/9/16	1100	
8	C-16-2.5 WH	C-16-2.5	10/9/16	1110	
9	C-15-0.5 WH	C-15-0.5	10/9/16	1120	
10	C-15-2.5 WH	C-15-2.5	10/9/16	1130	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: 10/9/16 Time: 1610

Signature: _____ Date: 10/9/16 Time: 1635

Signature: _____ Date: 10/9/16 Time: 1655

Relinquished by: Warren Howe

Relinquished by: _____

Relinquished by: _____

ADVANCED TECHNOLOGY
LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 4 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only

ATLCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt					
		Condition		Condition		Condition	
		Y	N	Y	N	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL					5. # OF SAMPLES MATCH COC	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac					6. PRESERVED	<input type="checkbox"/>
<input type="checkbox"/> GSO						7. COOLER TEMP. deg C:	
<input type="checkbox"/> Other:						8. SEALED	<input type="checkbox"/>

Company: TRC Solutions, Inc		Address: 9685		Research Dr		Tel: 949-341-7467	
City:		Irvine		State: CA		Fax: 949-727-7311	
SEND REPORT TO:				SEND INVOICE TO:			
Attn: John Nordenstan		Email: jnordenstan@trcsolutions.com		Attn:		Email:	
Company: TRC Solutions, Inc		Company:		Company:		Company:	
Address: 9685 Reasearch Drive		Address:		Address:		Address:	
City: Irvine		State: CA		City: 92618		State: Zip:	

Project Name:	Quote No:	Special Instructions/Comments:
---------------	-----------	--------------------------------

Project Name: LAUSD Roosevelt HS		Quote No.: E16I131		Special Instructions/Comments:	
Project No.: 265642.000/TA02		PO #: 100816			
Sampler: Warren Howe					
ITEM	Lab No.	Sample Description		Encircle or Write Requested Analysis	
		Sample ID / Location	Date	Time	
1	160354-31	C-14-0.5	10/9/16	1140	
2	-32	C-14-2.5	10/9/16	1150	
3	-33	C-13-0.5	10/9/16	12:00	
4	-34	C-13-2.5	10/9/16	1210	
5	-35	B-13-0.5	10/9/16	1220	
6	-36	B-13-2.5	10/9/16	1230	
7	-37	B-14-0.5	10/9/16	1240	
8	-38	B-14-2.5	10/9/16	1249	
9	-39	J-15-0.5	10/9/16	1300	
10	-40	J-15-2.5	10/9/16	1310	

- samples will be disposed of after 14 calendar days after receipt of samples.
- Electronic records maintained for 14 calendar days after receipt of samples.
- Hard copy reports will be disposed of after 45 calendar days from report date.
- Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if storage is extended beyond 45 calendar days.
 - Air samples: Complimentary storage for two (2) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
 - Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma?ed report; \$35 per reproessed EDD.
 - Samples for analysis: Samples held 2 days to analyze TAT for extraction on procedure.
 - Unanalyzed samples: Samples held 2 days to analyze TAT for extraction on procedure.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Warren Howe	10/9/16	1610	Charles Allen	10/19/16	1610
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Charles Allen	10/9/16	0655	Charles Allen	10/9/16	1655
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
			Charles Allen	10/9/16	1655

CHAIN OF CUSTODY RECORD

Page 5 of 5

Instruction: Complete all shaded areas.

Company: **TRC Solutions, Inc.** Address: **9685 Research Drive** Tel: **949-341-7467**
 Attn: **John Nordenstam** Email: **nordenstam@trcsolutions.com** State: **CA** Zip: **92618** Fax: **949-727-7314**
 Company: **TRC Solutions, Inc.** Address: **9685 Research Drive** State: **CA** Zip: **92618**

Project Name: **LAUSD Roosevelt HS** Quote No: **616131**
 Project No.: **265642.000/TA02** PO #: **106816**
 Sampler: **Warren Howe**

Special Instructions/Comments:
 Sample Description: **1603544-41 K-14-0.5** Date: **10-9-16** Time: **1320**
-42 K-14-2.5 **1330**
-43 J-15-0.5 **1340**
-44 J-15-2.5 **1350**
-45 IB-1-10/9/16 **1410**

ITEM	Lab No.	Sample ID / Location	Date	Time	Encircle or Write Requested Analysis	Endcircle Sample Matrix	Container	QA/QC
1	1603544-41	K-14-0.5	10-9-16	1320	AS EPA 6010 EPA 8021A EPA 8082	SOIL / SEDIMENT / SLUDGE	5 1 5 1 4	5-2n (As): 2-Hg, 2-HNO3, 3-H2SO4, 4-As Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-As Metal: 1-Glass, 2-Plastic, 3-Metal
2	-42	K-14-2.5		1330			5 1 5 1 4	
3	-43	J-15-0.5		1340			5 1 5 1 4	
4	-44	J-15-2.5		1350			5 1 5 1 4	
5	-45	IB-1-10/9/16		1410			3 5 1/2 4	
6								
7								
8								
9								
10								

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: _____

Received by: (Signature and Printed Name) **Warren Howe** Date: **10/9/16** Time: **1610**
 Received by: (Signature and Printed Name) **Edward Rodriguez** Date: **10-9-16** Time: **1655**
 Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 10, 2016 5:43 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Please see my comments in red below.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Monday, October 10, 2016 1:31 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: LAUSD Roosevelt HS, 265642.0000 / TA02

Hi John,

We have a couple of notes/questions for the samples received last weekend.

- Samples received 10/8- the IB-1-10/8/16 samples is not marked for analysis **Sample ID should be EB-1-10/8/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**
- Sample IB-1-10/9/16 received 10/9- the CoC is marked for EPA 8021, based on your email I believed this should be EPA 8081. **Sample ID should be EB-1-10/9/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**

Please advise. Attached are the CoC's for these samples.

Thank you,

Carmen Aguila
Sample Control



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 245
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

Rachelle Arada

From: Carmen Aguila
Sent: Tuesday, October 11, 2016 3:50 PM
To: Diane Galvan
Cc: customer.relations@atiglobal.com; Eddie Rodriguez
Subject: FW: LAUSD Roosevelt HS - Correction to Sample IDs 10-9-16
Attachments: DOC101116-003.pdf

From: Nordenstam, John [mailto:johnordenstam@trcsolutions.com]
Sent: Tuesday, October 11, 2016 2:31 PM
To: Carmen Aguila
Cc: Surrency, Ross; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Correction to Sample IDs 10-9-16

Carmen – There are two sample IDs for samples collected on October 10, 2016, that are incorrect:

- Sample J-15-0.5 collected at 1300 should be labeled J-14-0.5 (page 4 of COC)
- Sample J-15-2.5 collected at 1310 should be labeled J-14-2.5 (page 4 of COC)

A copy of the COC is attached. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Surrency, Ross
Sent: Tuesday, October 11, 2016 8:54 AM
To: Howe, Warren <WHowe@trcsolutions.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: Roosevelt HS

Warren,

On the October 9 COCs for Roosevelt HS, you wrote J-15 down twice (once on page 4 and once on page 5). Please try and figure out which one is correct and if the 2nd J-15 is actually another point.

Thanks,

Ross Surrency, PG
Senior Project Geologist



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603544

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 09, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive
Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H-14-0.5	1603544-01	Soil	10/09/16 7:40	10/09/16 16:55
H-14-2.5	1603544-02	Soil	10/09/16 7:46	10/09/16 16:55
H-15-0.5	1603544-03	Soil	10/09/16 7:40	10/09/16 16:55
H-15-2.5	1603544-04	Soil	10/09/16 7:50	10/09/16 16:55
H-16-0.5	1603544-05	Soil	10/09/16 8:00	10/09/16 16:55
H-16-2.5	1603544-06	Soil	10/09/16 8:10	10/09/16 16:55
G-17-0.5	1603544-07	Soil	10/09/16 8:30	10/09/16 16:55
G-17-2.5	1603544-08	Soil	10/09/16 8:41	10/09/16 16:55
H-17-0.5	1603544-09	Soil	10/09/16 8:20	10/09/16 16:55
H-17-2.5	1603544-10	Soil	10/09/16 8:29	10/09/16 16:55
G-16-0.5	1603544-11	Soil	10/09/16 9:00	10/09/16 16:55
G-16-2.5	1603544-12	Soil	10/09/16 9:10	10/09/16 16:55
G-15-0.5	1603544-13	Soil	10/09/16 9:20	10/09/16 16:55
G-15-2.5	1603544-14	Soil	10/09/16 9:30	10/09/16 16:55
G-14-0.5	1603544-15	Soil	10/09/16 9:38	10/09/16 16:55
G-14-2.5	1603544-16	Soil	10/09/16 9:44	10/09/16 16:55
E-14-0.5	1603544-17	Soil	10/09/16 9:52	10/09/16 16:55
E-14-2.5	1603544-18	Soil	10/09/16 10:00	10/09/16 16:55
E-15-0.5	1603544-19	Soil	10/09/16 10:10	10/09/16 16:55
E-15-2.5	1603544-20	Soil	10/09/16 10:20	10/09/16 16:55
E-16-0.5	1603544-21	Soil	10/09/16 10:05	10/09/16 16:55
E-16-2.5	1603544-22	Soil	10/09/16 10:10	10/09/16 16:55
E-17-0.5	1603544-23	Soil	10/09/16 10:29	10/09/16 16:55
E-17-2.5	1603544-24	Soil	10/09/16 10:36	10/09/16 16:55
C-17-0.5	1603544-25	Soil	10/09/16 10:42	10/09/16 16:55
C-17-2.5	1603544-26	Soil	10/09/16 10:50	10/09/16 16:55
C-16-0.5	1603544-27	Soil	10/09/16 11:00	10/09/16 16:55
C-16-2.5	1603544-28	Soil	10/09/16 11:10	10/09/16 16:55
C-15-0.5	1603544-29	Soil	10/09/16 11:20	10/09/16 16:55
C-15-2.5	1603544-30	Soil	10/09/16 11:30	10/09/16 16:55
C-14-0.5	1603544-31	Soil	10/09/16 11:40	10/09/16 16:55
C-14-2.5	1603544-32	Soil	10/09/16 11:50	10/09/16 16:55
C-13-0.5	1603544-33	Soil	10/09/16 12:00	10/09/16 16:55
C-13-2.5	1603544-34	Soil	10/09/16 12:10	10/09/16 16:55
B-13-0.5	1603544-35	Soil	10/09/16 12:20	10/09/16 16:55
B-13-2.5	1603544-36	Soil	10/09/16 12:30	10/09/16 16:55
B-14-0.5	1603544-37	Soil	10/09/16 12:40	10/09/16 16:55



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B-14-2.5	1603544-38	Soil	10/09/16 12:49	10/09/16 16:55
J-14-0.5	1603544-39	Soil	10/09/16 13:00	10/09/16 16:55
J-14-2.5	1603544-40	Soil	10/09/16 13:10	10/09/16 16:55
K-14-0.5	1603544-41	Soil	10/09/16 13:20	10/09/16 16:55
K-14-2.5	1603544-42	Soil	10/09/16 13:30	10/09/16 16:55
J-15-0.5	1603544-43	Soil	10/09/16 13:40	10/09/16 16:55
J-15-2.5	1603544-44	Soil	10/09/16 13:50	10/09/16 16:55
EB-1-10/9/16	1603544-45	Water	10/09/16 14:10	10/09/16 16:55
H-17-0.5 DUP	1603544-46	Soil	10/09/16 8:20	10/09/16 16:55
E-14-2.5 DUP	1603544-47	Soil	10/09/16 10:00	10/09/16 16:55
C-16-0.5 DUP	1603544-48	Soil	10/09/16 11:00	10/09/16 16:55
B-13-2.5 DUP	1603544-49	Soil	10/09/16 12:30	10/09/16 16:55

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Client Sample ID H-14-0.5

Lab ID: 1603544-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0370	10/14/2016	10/17/16 09:56	D1
Lead	28	5.0	0.56	5	B6J0370	10/14/2016	10/17/16 09:56	D1



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Client Sample ID H-14-2.5

Lab ID: 1603544-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:45	
Lead	4.3	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:45	



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Client Sample ID H-15-0.5

Lab ID: 1603544-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 09:00	
Lead	27	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 09:00	



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Client Sample ID H-15-2.5

Lab ID: 1603544-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:49	
Lead	6.0	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:49	



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Client Sample ID H-16-0.5

Lab ID: 1603544-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 09:04	
Lead	33	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 09:04	



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Client Sample ID H-16-2.5

Lab ID: 1603544-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:50	
Lead	20	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:50	



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Client Sample ID G-17-0.5

Lab ID: 1603544-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:18	
Lead	48	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:18	



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Client Sample ID G-17-2.5

Lab ID: 1603544-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:51	
Lead	3.4	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:51	



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Client Sample ID H-17-0.5

Lab ID: 1603544-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.3	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:04	
Lead	60	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:04	



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Client Sample ID H-17-2.5

Lab ID: 1603544-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:52	
Lead	3.6	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:52	



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Client Sample ID G-16-0.5

Lab ID: 1603544-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:07	
Lead	26	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:07	



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Client Sample ID G-16-2.5

Lab ID: 1603544-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:54	
Lead	6.0	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:54	



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Client Sample ID G-15-0.5

Lab ID: 1603544-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:10	
Lead	31	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:10	



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Client Sample ID G-15-2.5

Lab ID: 1603544-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:55	
Lead	8.9	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:55	



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Client Sample ID G-14-0.5

Lab ID: 1603544-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:36	
Lead	29	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:36	



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Client Sample ID G-14-2.5

Lab ID: 1603544-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:56	
Lead	2.2	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:56	



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Client Sample ID E-14-0.5

Lab ID: 1603544-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0370	10/14/2016	10/17/16 10:21	
Lead	27	1.0	0.11	1	B6J0370	10/14/2016	10/17/16 10:21	



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Client Sample ID E-14-2.5

Lab ID: 1603544-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:20	
Lead	14	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:20	



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Client Sample ID E-15-0.5

Lab ID: 1603544-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 10:43	
Lead	20	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 10:43	



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Client Sample ID E-15-2.5

Lab ID: 1603544-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:57	
Lead	8.6	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:57	



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Client Sample ID E-16-0.5

Lab ID: 1603544-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 10:55	
Lead	37	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 10:55	



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Client Sample ID E-16-2.5

Lab ID: 1603544-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.93	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:58	J
Lead	49	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:58	



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Client Sample ID E-17-0.5

Lab ID: 1603544-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 10:59	
Lead	68	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 10:59	



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Client Sample ID E-17-2.5

Lab ID: 1603544-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 10:59	
Lead	11	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 10:59	



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Client Sample ID C-17-0.5

Lab ID: 1603544-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:02	
Lead	85	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:02	

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.7	1.0	0.057	20	B6J0822	10/28/2016	10/28/16 16:14	



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Client Sample ID C-17-2.5

Lab ID: 1603544-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:20	
Lead	22	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:20	



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Client Sample ID C-16-0.5

Lab ID: 1603544-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:06	
Lead	70	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:06	



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Client Sample ID C-16-2.5

Lab ID: 1603544-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0037	11/02/2016	11/03/16 11:03	
Lead	29	1.0	0.11	1	B6K0037	11/02/2016	11/03/16 11:03	



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Client Sample ID C-15-0.5

Lab ID: 1603544-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.8	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:16	
Lead	71	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:16	



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Client Sample ID C-15-2.5

Lab ID: 1603544-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:06	
Lead	28	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:06	



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Reported : 11/08/2016

Client Sample ID C-14-0.5

Lab ID: 1603544-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.5	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:20	
Lead	44	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:20	



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Client Sample ID C-14-2.5

Lab ID: 1603544-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:11	
Lead	14	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:11	



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Client Sample ID C-13-0.5

Lab ID: 1603544-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:23	
Lead	150	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:23	

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.057	20	B6J0822	10/28/2016	10/28/16 16:18	



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Client Sample ID C-13-2.5

Lab ID: 1603544-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:32	
Lead	15	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:32	



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Client Sample ID B-13-0.5

Lab ID: 1603544-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	41	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:27	
Lead	96	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:27	

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.1	1.0	0.057	20	B6J0822	10/28/2016	10/28/16 16:22	



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Client Sample ID B-13-2.5

Lab ID: 1603544-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:35	
Lead	16	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:35	



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Client Sample ID B-14-0.5

Lab ID: 1603544-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:30	
Lead	62	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:30	



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Reported : 11/08/2016

Client Sample ID B-14-2.5

Lab ID: 1603544-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:39	
Lead	58	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:39	



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Client Sample ID J-14-0.5

Lab ID: 1603544-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:33	
Lead	43	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:33	



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Client Sample ID J-14-2.5

Lab ID: 1603544-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:12	
Lead	77	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:12	



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Client Sample ID K-14-0.5

Lab ID: 1603544-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:36	
Lead	55	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:36	



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Client Sample ID K-14-2.5

Lab ID: 1603544-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:13	
Lead	5.6	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:13	



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Client Sample ID J-15-0.5

Lab ID: 1603544-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:40	
Lead	64	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:40	



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Client Sample ID J-15-2.5

Lab ID: 1603544-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:17	
Lead	1.7	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:17	



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Client Sample ID EB-1-10/9/16

Lab ID: 1603544-45

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0418	10/14/2016	10/14/16 14:21	
Lead	ND	0.0050	0.0028	1	B6J0418	10/14/2016	10/14/16 14:21	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
4,4'-DDE	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
4,4'-DDT	ND	0.05	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
Aldrin	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
alpha-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
alpha-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
beta-BHC	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Chlordane	ND	0.25	0.03	1	B6J0332	10/12/2016	10/12/16 12:27	
delta-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
Dieldrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endosulfan I	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endosulfan II	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Endrin aldehyde	ND	0.05	0.006	1	B6J0332	10/12/2016	10/12/16 12:27	
Endrin ketone	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
gamma-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
gamma-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Heptachlor	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:27	
Methoxychlor	ND	0.25	0.004	1	B6J0332	10/12/2016	10/12/16 12:27	
Toxaphene	ND	2.5	0.23	1	B6J0332	10/12/2016	10/12/16 12:27	
Surrogate: Decachlorobiphenyl	55.6 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:27	
Surrogate: Tetrachloro-m-xylene	80.5 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:27	



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Client Sample ID EB-1-10/9/16

Lab ID: 1603544-45

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1221	ND	1.0	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1232	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1242	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1248	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1254	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1260	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1262	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Aroclor 1268	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:24	
Surrogate: Decachlorobiphenyl	68.5 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:24	
Surrogate: Tetrachloro-m-xylene	89.3 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:24	



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Client Sample ID H-17-0.5 DUP

Lab ID: 1603544-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:40	
Lead	65	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:40	



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Client Sample ID E-14-2.5 DUP

Lab ID: 1603544-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:23	
Lead	15	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:23	



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Client Sample ID C-16-0.5 DUP

Lab ID: 1603544-48

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:41	
Lead	43	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:41	



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Client Sample ID B-13-2.5 DUP

Lab ID: 1603544-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:26	
Lead	19	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:26	



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Reported : 11/08/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0370 - EPA 3050B_S									
Blank (B6J0370-BLK1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0370-BS1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	43.5811	1.0	50.0000		87.2	80 - 120			
Lead	46.3653	1.0	50.0000		92.7	80 - 120			
Duplicate (B6J0370-DUP1)				Source: 1603423-73		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	4.24103	1.0		4.97712	NR		16.0	20	
Lead	35.0581	1.0		159.895	NR		128	20	R
Matrix Spike (B6J0370-MS1)				Source: 1603423-73		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	84.4050	1.0	125.000	4.97712	63.5	59 - 103			
Lead	162.600	1.0	125.000	159.895	2.16	34 - 129			M1
Matrix Spike Dup (B6J0370-MSD1)				Source: 1603423-73		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	76.5590	1.0	125.000	4.97712	57.3	59 - 103	9.75	20	M1
Lead	121.001	1.0	125.000	159.895	-31.1	34 - 129	29.3	20	M1



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0371 - EPA 3050B_S

Blank (B6J0371-BLK1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0371-BS1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	49.9885	1.0	50.0000		100	80 - 120			
Lead	53.3410	1.0	50.0000		107	80 - 120			

Duplicate (B6J0371-DUP1)

Source: 1603544-19

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	3.48272	1.0		3.13438	NR		10.5	20	
Lead	18.9251	1.0		20.2063	NR		6.55	20	

Matrix Spike (B6J0371-MS1)

Source: 1603544-19

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	105.231	1.0	125.000	3.13438	81.7	59 - 103			
Lead	122.796	1.0	125.000	20.2063	82.1	34 - 129			

Matrix Spike Dup (B6J0371-MSD1)

Source: 1603544-19

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	104.867	1.0	125.000	3.13438	81.4	59 - 103	0.347	20	
Lead	123.053	1.0	125.000	20.2063	82.3	34 - 129	0.209	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0418 - EPA 3010A_W

Blank (B6J0418-BLK1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0418-BS1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	0.967790	0.010	1.00000		96.8	80 - 120			
Lead	0.981258	0.0050	1.00000		98.1	80 - 120			

Duplicate (B6J0418-DUP1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0418-MS1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.28443	0.010	2.50000	ND	91.4	74 - 123			
Lead	2.32926	0.0050	2.50000	ND	93.2	78 - 109			

Matrix Spike Dup (B6J0418-MSD1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.21269	0.010	2.50000	ND	88.5	74 - 123	3.19	20	
Lead	2.26268	0.0050	2.50000	ND	90.5	78 - 109	2.90	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0567 - EPA 3050B_S

Blank (B6J0567-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0567-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	46.9369	1.0	50.0000		93.9	80 - 120			
Lead	47.4370	1.0	50.0000		94.9	80 - 120			

Duplicate (B6J0567-DUP1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	10		ND	NR			20	
Lead	30.6479	10		23.1921	NR		27.7	20	R

Matrix Spike (B6J0567-MS1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	121.299	5.0	125.000	3.69901	94.1	59 - 103			
Lead	155.509	5.0	125.000	23.1921	106	34 - 129			

Matrix Spike Dup (B6J0567-MSD1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	117.649	5.0	125.000	3.69901	91.2	59 - 103	3.06	20	
Lead	148.279	5.0	125.000	23.1921	100	34 - 129	4.76	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0812 - EPA 3050B_S

Blank (B6J0812-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0812-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	40.7673	1.0	50.0000		81.5	80 - 120			
Lead	43.9380	1.0	50.0000		87.9	80 - 120			

Duplicate (B6J0812-DUP1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	2.12716	1.0		2.81603	NR		27.9	20	R
Lead	17.6780	1.0		21.7051	NR		20.5	20	R

Matrix Spike (B6J0812-MS1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	56.9830	1.0	125.628	2.81603	43.1	59 - 103			M1
Lead	80.4784	1.0	125.628	21.7051	46.8	34 - 129			

Matrix Spike Dup (B6J0812-MSD1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	43.2135	1.0	125.628	2.81603	32.2	59 - 103	27.5	20	M1, R
Lead	68.8367	1.0	125.628	21.7051	37.5	34 - 129	15.6	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0037 - EPA 3050B_S

Blank (B6K0037-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0037-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	45.6807	1.0	50.0000		91.4	80 - 120			
Lead	47.9059	1.0	50.0000		95.8	80 - 120			

Duplicate (B6K0037-DUP1)

Source: 1603543-38

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	1.91968	1.0		2.18944	NR		13.1	20	
Lead	26.4058	1.0		29.8832	NR		12.4	20	

Matrix Spike (B6K0037-MS1)

Source: 1603543-38

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	99.0382	1.0	125.000	2.18944	77.5	59 - 103			
Lead	125.214	1.0	125.000	29.8832	76.3	34 - 129			

Matrix Spike Dup (B6K0037-MSD1)

Source: 1603543-38

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	97.4652	1.0	125.000	2.18944	76.2	59 - 103	1.60	20	
Lead	135.706	1.0	125.000	29.8832	84.7	34 - 129	8.04	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0038 - EPA 3050B_S

Blank (B6K0038-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0038-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	49.1369	1.0	50.0000		98.3	80 - 120			
Lead	51.4526	1.0	50.0000		103	80 - 120			

Duplicate (B6K0038-DUP1)

Source: 1603544-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	2.73643	1.0		2.98618	NR		8.73	20	
Lead	28.2383	1.0		27.6718	NR		2.03	20	

Matrix Spike (B6K0038-MS1)

Source: 1603544-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	99.7586	1.0	125.000	2.98618	77.4	59 - 103			
Lead	123.557	1.0	125.000	27.6718	76.7	34 - 129			

Matrix Spike Dup (B6K0038-MSD1)

Source: 1603544-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	98.6443	1.0	125.000	2.98618	76.5	59 - 103	1.12	20	
Lead	123.762	1.0	125.000	27.6718	76.9	34 - 129	0.166	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



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Reported : 11/08/2016

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0822 - STLC_S Extraction

Blank (B6J0822-BLK1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead ND 1.0 NR

LCS (B6J0822-BS1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 2.12487 2.00000 106 80 - 120

Duplicate (B6J0822-DUP1)

Source: 1603756-03

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 0.940548 1.0 0.954158 NR 1.44 20 J

Matrix Spike (B6J0822-MS1)

Source: 1603756-03

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 3.28102 2.50000 0.954158 93.1 44 - 130

Matrix Spike Dup (B6J0822-MSD1)

Source: 1603756-03

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 3.34056 2.50000 0.954158 95.5 44 - 130 1.80 20



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0332-BLK1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3495		0.500000		69.9	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3986		0.500000		79.7	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4142		0.500000		82.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4376		0.500000		87.5	14 - 122		

LCS (B6J0332-BS1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.406435	0.05	0.500000		81.3	59 - 109		
4,4'-DDD [2C]	0.418670	0.05	0.500000		83.7	59 - 109		
4,4'-DDE	0.411130	0.05	0.500000		82.2	63 - 101		
4,4'-DDE [2C]	0.411210	0.05	0.500000		82.2	63 - 101		
4,4'-DDT	0.267165	0.05	0.500000		53.4	36 - 96		
4,4'-DDT [2C]	0.291695	0.05	0.500000		58.3	36 - 96		
Aldrin	0.417880	0.02	0.500000		83.6	64 - 96		
Aldrin [2C]	0.425215	0.02	0.500000		85.0	64 - 96		
alpha-BHC	0.415650	0.02	0.500000		83.1	63 - 92		
alpha-BHC [2C]	0.428550	0.02	0.500000		85.7	63 - 92		
alpha-Chlordane	0.401385	0.02	0.500000		80.3	63 - 101		
alpha-Chlordane [2C]	0.404315	0.02	0.500000		80.9	63 - 101		
beta-BHC	0.402630	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.418125	0.02	0.500000		83.6	58 - 95		
delta-BHC	0.296250	0.02	0.500000		59.2	37 - 107		
delta-BHC [2C]	0.302675	0.02	0.500000		60.5	37 - 107		
Dieldrin	0.417180	0.05	0.500000		83.4	62 - 102		
Dieldrin [2C]	0.421635	0.05	0.500000		84.3	62 - 102		
Endosulfan I	0.399945	0.02	0.500000		80.0	61 - 97		
Endosulfan I [2C]	0.406900	0.02	0.500000		81.4	61 - 97		
Endosulfan II	0.404650	0.05	0.500000		80.9	61 - 103		
Endosulfan II [2C]	0.398985	0.05	0.500000		79.8	61 - 103		
Endosulfan sulfate	0.349275	0.05	0.500000		69.9	60 - 112		
Endosulfan Sulfate [2C]	0.365450	0.05	0.500000		73.1	60 - 112		
Endrin	0.470725	0.05	0.500000		94.1	62 - 103		
Endrin [2C]	0.482695	0.05	0.500000		96.5	62 - 103		
Endrin aldehyde	0.376935	0.05	0.500000		75.4	64 - 116		
Endrin aldehyde [2C]	0.383165	0.05	0.500000		76.6	64 - 116		
Endrin ketone	0.346120	0.05	0.500000		69.2	56 - 113		
Endrin ketone [2C]	0.359040	0.05	0.500000		71.8	56 - 113		
gamma-BHC	0.416855	0.02	0.500000		83.4	64 - 95		
gamma-BHC [2C]	0.428785	0.02	0.500000		85.8	64 - 95		



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0332-BS1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

gamma-Chlordane	0.398875	0.02	0.500000		79.8	64 - 99		
gamma-Chlordane [2C]	0.401970	0.02	0.500000		80.4	64 - 99		
Heptachlor	0.403775	0.02	0.500000		80.8	64 - 93		
Heptachlor [2C]	0.411645	0.02	0.500000		82.3	64 - 93		
Heptachlor epoxide	0.407030	0.02	0.500000		81.4	65 - 98		
Heptachlor epoxide [2C]	0.415800	0.02	0.500000		83.2	65 - 98		
Methoxychlor	0.283360	0.25	0.500000		56.7	0 - 141		
Methoxychlor [2C]	0.320960	0.25	0.500000		64.2	0 - 141		
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3916</i>		<i>0.500000</i>		<i>78.3</i>	<i>7 - 127</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.4032</i>		<i>0.500000</i>		<i>80.6</i>	<i>7 - 127</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4181</i>		<i>0.500000</i>		<i>83.6</i>	<i>14 - 122</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4563</i>		<i>0.500000</i>		<i>91.3</i>	<i>14 - 122</i>		

LCS Dup (B6J0332-BSD1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.396620	0.05	0.500000		79.3	59 - 109	2.44	20
4,4'-DDD [2C]	0.405160	0.05	0.500000		81.0	59 - 109	3.28	20
4,4'-DDE	0.401385	0.05	0.500000		80.3	63 - 101	2.40	20
4,4'-DDE [2C]	0.398485	0.05	0.500000		79.7	63 - 101	3.14	20
4,4'-DDT	0.262370	0.05	0.500000		52.5	36 - 96	1.81	20
4,4'-DDT [2C]	0.280405	0.05	0.500000		56.1	36 - 96	3.95	20
Aldrin	0.406225	0.02	0.500000		81.2	64 - 96	2.83	20
Aldrin [2C]	0.410325	0.02	0.500000		82.1	64 - 96	3.56	20
alpha-BHC	0.403465	0.02	0.500000		80.7	63 - 92	2.98	20
alpha-BHC [2C]	0.413065	0.02	0.500000		82.6	63 - 92	3.68	20
alpha-Chlordane	0.390295	0.02	0.500000		78.1	63 - 101	2.80	20
alpha-Chlordane [2C]	0.391205	0.02	0.500000		78.2	63 - 101	3.30	20
beta-BHC	0.390770	0.02	0.500000		78.2	58 - 95	2.99	20
beta-BHC [2C]	0.403065	0.02	0.500000		80.6	58 - 95	3.67	20
delta-BHC	0.287245	0.02	0.500000		57.4	37 - 107	3.09	20
delta-BHC [2C]	0.293250	0.02	0.500000		58.6	37 - 107	3.16	20
Dieldrin	0.406965	0.05	0.500000		81.4	62 - 102	2.48	20
Dieldrin [2C]	0.408560	0.05	0.500000		81.7	62 - 102	3.15	20
Endosulfan I	0.390960	0.02	0.500000		78.2	61 - 97	2.27	20
Endosulfan I [2C]	0.395850	0.02	0.500000		79.2	61 - 97	2.75	20
Endosulfan II	0.396670	0.05	0.500000		79.3	61 - 103	1.99	20
Endosulfan II [2C]	0.387015	0.05	0.500000		77.4	61 - 103	3.05	20
Endosulfan sulfate	0.343820	0.05	0.500000		68.8	60 - 112	1.57	20
Endosulfan Sulfate [2C]	0.356380	0.05	0.500000		71.3	60 - 112	2.51	20
Endrin	0.461280	0.05	0.500000		92.3	62 - 103	2.03	20
Endrin [2C]	0.468460	0.05	0.500000		93.7	62 - 103	2.99	20
Endrin aldehyde	0.370645	0.05	0.500000		74.1	64 - 116	1.68	20



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0332-BSD1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Endrin aldehyde [2C]	0.378480	0.05	0.500000		75.7	64 - 116	1.23	20	
Endrin ketone	0.337815	0.05	0.500000		67.6	56 - 113	2.43	20	
Endrin ketone [2C]	0.346240	0.05	0.500000		69.2	56 - 113	3.63	20	
gamma-BHC	0.404790	0.02	0.500000		81.0	64 - 95	2.94	20	
gamma-BHC [2C]	0.414240	0.02	0.500000		82.8	64 - 95	3.45	20	
gamma-Chlordane	0.387960	0.02	0.500000		77.6	64 - 99	2.77	20	
gamma-Chlordane [2C]	0.389675	0.02	0.500000		77.9	64 - 99	3.11	20	
Heptachlor	0.393130	0.02	0.500000		78.6	64 - 93	2.67	20	
Heptachlor [2C]	0.398780	0.02	0.500000		79.8	64 - 93	3.17	20	
Heptachlor epoxide	0.398080	0.02	0.500000		79.6	65 - 98	2.22	20	
Heptachlor epoxide [2C]	0.404040	0.02	0.500000		80.8	65 - 98	2.87	20	
Methoxychlor	0.277810	0.25	0.500000		55.6	0 - 141	1.98	20	
Methoxychlor [2C]	0.311890	0.25	0.500000		62.4	0 - 141	2.87	20	
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3830</i>		<i>0.500000</i>		<i>76.6</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3757</i>		<i>0.500000</i>		<i>75.1</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4058</i>		<i>0.500000</i>		<i>81.2</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4393</i>		<i>0.500000</i>		<i>87.9</i>	<i>14 - 122</i>			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.4394		0.500000	87.9	7 - 127				
Surrogate: Tetrachloro-m-xylene	0.4706		0.500000	94.1	14 - 122				

LCS (B6J0332-BS2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.09639	0.50	5.00000	81.9	68 - 96				
Aroclor 1260	4.42498	0.50	5.00000	88.5	64 - 106				

Surrogate: Decachlorobiphenyl	0.4399		0.500000	88.0	7 - 127				
Surrogate: Tetrachloro-m-xylene	0.4658		0.500000	93.2	14 - 122				

LCS Dup (B6J0332-BSD2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.03858	0.50	5.00000	80.8	68 - 96	1.42	20		
Aroclor 1260	4.38676	0.50	5.00000	87.7	64 - 106	0.868	20		

Surrogate: Decachlorobiphenyl	0.4253		0.500000	85.1	7 - 127				
Surrogate: Tetrachloro-m-xylene	0.4520		0.500000	90.4	14 - 122				



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 5

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc.		Address: 9685 Research Drive		Tel: 949-341-7467	
City: Irvine		State: CA		Zip: 92618	
Attn: John Nardone		Email: jordanstan@trcsolutions.com		SEND REPORT TO:	
Company: TRC Solutions, Inc.		Address: 9685 Research Drive		State: CA	
City: Irvine		State: CA		Zip: 92618	

Project Name: LAUSD Roosevelt HS		Quote No: E16I131	Special Instructions/Comments:	
Project No: 265642.0000/TA02		PO #: 100816		
Sampler: Warren Howe				
ITEM	Lab No.	Sample ID / Location	Date	Time
1	160354-01	H-14-0.5	10/9/16	0740
2	-02	H-14-2.5	10/9/16	0746
3	-03	H-15-0.5	10/9/16	0740
4	-04	H-15-2.5	10/9/16	0750
5	-05	H-16-0.5	10/9/16	0800
6	-06	H-16-2.5	10/9/16	0810
7	-07	G-17-0.5	10/9/16	0830
8	-08	G-17-2.5	10/9/16	0841
9	-09	H-17-0.5	10/9/16	0820
10	-10	H-17-2.5	10/9/16	0829

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following surcharges apply to all samples:
TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
TAT = 2 : 50% Surcharge NEXT BUSINESS DAY (received by 5:00 PM)
TAT = 3 : 30% Surcharge 2ND BUSINESS DAY (received by 5:00 PM)
TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (received by 5:00 PM)
TAT = 5 : 10% Surcharge 7TH BUSINESS DAY (received by 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reproduced EDO.
10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Relinquished by: (Signature and Printed Name) Warren Howe	Date: 10/9/16	Time: 1610
Relinquished by: (Signature and Printed Name) Edmund Rodriguez	Date: 10/9/16	Time: 1655
Relinquished by: (Signature and Printed Name)	Date:	Time:

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
Y	N	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Condition	<input type="checkbox"/> Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC	<input type="checkbox"/> Y
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	<input type="checkbox"/> 6. PRESERVED	<input type="checkbox"/> Y
<input type="checkbox"/> Other:		<input type="checkbox"/> 7. COOLER TEMP. deg C:	<input type="checkbox"/> Y
		<input type="checkbox"/> 8. SEALED	<input type="checkbox"/> Y

Company: **TRC Solutions Inc** Address: **9685 Rosearch Drive** Tel: **949-341-7467**
City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**

Attn: **John Nordenstam** Email: **jnordenstam@trcsolutions.com**
Company: **TRC Solutions, Inc**

Address: **9685 Research Drive** State: **CA** Zip: **92618**

City: **Irvine** State: **CA** Zip: **92618**

Project Name: **LAUSD Roosevelt HS** Quote No: **E16131**
Project No.: **265642000/TA02** PO #: **100816**
Sampler: **Warren Howe**

ITEM	Lab No.	Sample Description		Special Instructions/Comments:	
		Sample ID / Location	Date	Time	
1	1603544-11	G-16-0.5	10/9/16	0900	
2	-12	G-16-2.5	10/9/16	0910	
3	-13	G-15-0.5	10/9/16	0920	
4	-14	G-15-2.5	10/9/16	0930	
5	-15	G-14-0.5	10/9/16	0938	
6	-16	G-14-2.5	10/9/16	0944	
7	-17	E-14-0.5	10/9/16	0952	
8	-18	E-14-2.5	10/9/16	1000	
9	-19	E-15-0.5	10/9/16	1010	
10	-20	E-15-2.5	10/9/16	1020	

Encircle or Write Requested Analysis

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	Type: 1-Tube; 2-VOA; 3-Liter; 4-Pint; 5-Liter; 6-Tedlar; 7 = Canister	<input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB <input type="checkbox"/> Level IV
8015 (GRO)			
8015 (DRO)			
8270 (Semi-volatiles)			
8081 (Organochlorine Pesticides)			
8082 (PCBs)			
6010 / 7000 (Title 22 Metals)			
TO-15			
As EPA 6010B			
Pb EPA 6010B			

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: 10/9/16

Submitter Print Name: _____

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: 10/9/16 Time: 1610
Relinquished by: (Signature and Printed Name) **Warren Howe** Date: 10/9/16 Time: 1655
Relinquished by: (Signature and Printed Name) **Warren Howe** Date: 10/9/16 Time: 1655

CHAIN OF CUSTODY RECORD

Page 3 of 5

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		Fax: 949-727-5811	
Company: TRC Solutions, Inc		State: CA		Zip: 92618	
Address: 9685 Research Drive		City: Irvine		State: CA	
City: Irvine		Zip: 92618		State: CA	

Project Name: LAUSD Roosevelt HS		Quote No: E16I131		Special Instructions/Comments:	
Project No: 265642000/TA02		PO #: 100816			
Sampler: Warren Howe					

ITEM	Lab No.	Sample ID / Location	Date	Time	Sample Description
1	1603544-2021	E-16-0.5	10/9/16	1005	
2	1603544-2021	E-16-2.5	10/9/16	1010	
3	1603544-2021	E-17-0.5	10/9/16	1029	
4	1603544-2021	E-17-2.5	10/9/16	1036	
5	1603544-2021	C-17-0.5	10/9/16	1042	
6	1603544-2021	C-17-2.5	10/9/16	1050	
7	1603544-2021	C-16-0.5	10/9/16	1100	
8	1603544-2021	C-16-2.5	10/9/16	1110	
9	1603544-2021	C-15-0.5	10/9/16	1120	
10	1603544-2021	C-15-2.5	10/9/16	1130	

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following surcharges apply: 100% Surcharge, SAME BUSINESS DAY (COB 5:00 PM) if received by 9:00 AM.
TAT = 1: 100% Surcharge, SAME BUSINESS DAY (COB 5:00 PM) if received by 9:00 AM.
TAT = 2: 50% Surcharge, NEXT BUSINESS DAY (COB 5:00 PM) if received by 9:00 AM.
TAT = 3: 30% Surcharge, 3RD BUSINESS DAY (COB 5:00 PM) if received by 9:00 AM.
TAT = 4: 20% Surcharge, 4TH BUSINESS DAY (COB 5:00 PM) if received by 9:00 AM.
4. Weekend, Holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is required.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is required.
Hard copy and regenerated reports (EODs): \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$25 per reprocessed EOD.
10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Relinquished by: Warren Howe	Date: 10/9/16	Time: 1610
Relinquished by: Warren Howe	Date: 10/9/16	Time: 1635
Relinquished by: Warren Howe	Date: 10/9/16	Time: 1655

CHAIN OF CUSTODY RECORD

Page 4 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only ATLCC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/>	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/> Other:	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP deg. C <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company: **TRC Solutions, Inc** Address: **9685 Irvine** City: **CA** State: **CA** Zip: **92618** Tel: **949-341-7467** Fax: **949-727-7311**

Attn: **John Nordenstan** Email: **jnordenstan@trcsolutions.com**

Company: **TRC Solutions, Inc** Address: **9685 Research Drive** City: **Irvine** State: **CA** Zip: **92618**

Attn: **Warren Howe** Email: **warren.howe@trcsolutions.com**

Project Name: **LAUSD Raseret AS** Quote No: **E161131**

Project No.: **265642.000/TA02** PO #: **100816**

Sampler: **Warren Howe**

Project Name: LAUSD Rossvelt HS			Quote No: E16I131		Special Instructions/Comments:																				
Project No.: 265642.000/TA02			PO #: 100816																						
Sampler: Warren House																									
ITEM	Lab No.	Sample Description			Encircle or Write Requested Analysis										Encircle Sample Matrix					TAT		#	Container	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=5-Zn (Ac2); 6=NaOH; 7=NA2S2O3	REMARKS
		Sample ID / Location	Date	Time																					
1	1603544-31	C-14-0.5	10/9/16	1140	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	AS EPA 8210 B	PS EPA 8210 B	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	Type: 1=Tube; 2=VOA; 3=Liter; 4=Print; 5=Liter; 6=Liter; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	5-Zn (Ac2); 6=NaOH; 7=NA2S2O3			
2	-32	C-14-2.05	10/9/16	1150									XX	XX						5	1	4	Hold		
3	-33	C-13-0.5	10/9/16	12:00									XX	XX						5	1	4			
4	-34	C-13-2.5	10/9/16	1216									XX	XX						5	1	4	Hold		
5	-35	B-13-0.5	10/9/16	1220									XX	XX						5	1	4			
6	-36	B-13-2.5	10/9/16	1230									XX	XX						5	1	4	Hold		
7	-37	B-14-0.5	10/9/16	1240									XX	XX						5	1	4			
8	-38	B-14-2.5	10/9/16	1249									XX	XX						5	1	4	Hold		
9	-39	J-15-0.5	10/9/16	1300									XX	XX						5	1	4			
10	-40	J-15-2.5	10/9/16	1310									XX	XX						5	1	4	Hold		

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/9/16** Time: **1610**

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/9/16** Time: **1655**

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/9/16** Time: **1655**

TERMS: 1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted After 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 0 - 30% Surcharge SAME BUSINESS DAY (if received by 9:00 AM)
TAT = 1 - 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 2 - 50% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 3 - 30% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 4 - 20% Surcharge 5TH BUSINESS DAY (COB 5:00 PM)
TAT = 5 - NO SURCHARGE
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT 5 - 15 Business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Storage and report fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report.
9. \$35 per reproducible EDD.
10. Non-TAT/PS/SLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

CHAIN OF CUSTODY RECORD

Page 5 of 5

Instruction: Complete all shaded areas.

Company: **TRC Solutions, Inc.** Address: **9685 Research Drive** Tel: **949-341-7467**
 Attn: **John Nordenstam** Email: **nordenstam@trcsolutions.com** State: **CA** Zip: **92618** Fax: **949-727-7314**
 Company: **TRC Solutions, Inc.** Address: **9685 Research Drive** State: **CA** Zip: **92618** Email: **same as SEND REPORT TO**

Project Name: **LAUSD Roosevelt HS E16131** Quote No: **106816**
 Project No.: **265642.0000/TA02** PO #: **106816**
 Sampler: **Warren Howe**

City: **Irvine** State: **CA** Zip: **92618**
 Address: **9685 Research Drive**
 City: **Irvine** State: **CA** Zip: **92618**

Special Instructions/Comments:

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Endcircle Sample Matrix	Container	QA/QC
1	11603544-41	K-14-0.5		10-9-16	1320	AS EPA 6010B EPA 8021A EPA 8082	SOIL / SEDIMENT / SLUDGE	5 1 5 1 4	5-Zn (AA); 6-MnOH; 7-MnAS203
2	-42	K-14-2.5			1330			5 1 5 1 4	
3	-43	J-15-0.5			1340			5 1 5 1 4	
4	-44	J-15-2.5			1350			5 1 5 1 4	
5	-45	IB-1-10/9/16			1410			3 5 1/2 4	
6									
7									
8									
9									
10									

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: _____

Signature: _____ Date: _____

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/9/16** Time: **1610**
 Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/9/16** Time: **1655**
 Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10-9-16** Time: **1655**

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 10, 2016 5:43 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Please see my comments in red below.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Monday, October 10, 2016 1:31 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: LAUSD Roosevelt HS, 265642.0000 / TA02

Hi John,

We have a couple of notes/questions for the samples received last weekend.

- Samples received 10/8- the IB-1-10/8/16 samples is not marked for analysis **Sample ID should be EB-1-10/8/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**
- Sample IB-1-10/9/16 received 10/9- the CoC is marked for EPA 8021, based on your email I believed this should be EPA 8081. **Sample ID should be EB-1-10/9/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082**

Please advise. Attached are the CoC's for these samples.

Thank you,

Carmen Aguila
Sample Control



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 245
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

Rachelle Arada

From: Carmen Aguila
Sent: Tuesday, October 11, 2016 3:50 PM
To: Diane Galvan
Cc: customer.relations@atiglobal.com; Eddie Rodriguez
Subject: FW: LAUSD Roosevelt HS - Correction to Sample IDs 10-9-16
Attachments: DOC101116-003.pdf

From: Nordenstam, John [mailto:johnordenstam@trcsolutions.com]
Sent: Tuesday, October 11, 2016 2:31 PM
To: Carmen Aguila
Cc: Surrency, Ross; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Correction to Sample IDs 10-9-16

Carmen – There are two sample IDs for samples collected on October 10, 2016, that are incorrect:

- Sample J-15-0.5 collected at 1300 should be labeled J-14-0.5 (page 4 of COC)
- Sample J-15-2.5 collected at 1310 should be labeled J-14-2.5 (page 4 of COC)

A copy of the COC is attached. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Surrency, Ross
Sent: Tuesday, October 11, 2016 8:54 AM
To: Howe, Warren <WHowe@trcsolutions.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: Roosevelt HS

Warren,

On the October 9 COCs for Roosevelt HS, you wrote J-15 down twice (once on page 4 and once on page 5). Please try and figure out which one is correct and if the 2nd J-15 is actually another point.

Thanks,

Ross Surrency, PG
Senior Project Geologist

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 17, 2016 5:50 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: LAUSD Roosevelt HS PEA - Duplicate Samples for October 8 and 9, 2016
Attachments: DOC101716-004.pdf

Rachelle – as per our discussion today, duplicate samples were not collected during the field sampling activities at LAUSD Roosevelt HS on October 8 and 9, 2016. Please pull an aliquot from the following samples to be used as a duplicate sample and perform the analyses as indicated below. Attached are copies of the COCs with the samples marked that should have duplicates.

Samples collected on October 8, 2016

- Sample F-9-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-9-2.5' - HOLD
- Sample B-10-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample G-13-2.5' – HOLD

Samples collected on October 9, 2016

- Sample H-17-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample E-14-2.5' - HOLD
- Sample C-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample B-13-2.5' – HOLD
- Sample F-14-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-14-2.5' – HOLD
- Sample B-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample K-16-2.5' – HOLD

I will be sending you addition instructions for sample compositing and analysis tomorrow. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

Company: TPC Solutions Inc		Address: 9685 Research Drive		City: Irvine		State: CA		Zip: 92618	
Attn: John Nordenstam		Email: jnordenstam@trcsolutions.com		Company: IRC Solutions, Inc		Address: 9685 Research Drive		City: Irvine	
Attn: John Nordenstam		Email: jnordenstam@trcsolutions.com		Company: IRC Solutions, Inc		Address: 9685 Research Drive		City: Irvine	
Attn: John Nordenstam		Email: jnordenstam@trcsolutions.com		Company: IRC Solutions, Inc		Address: 9685 Research Drive		City: Irvine	

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603544-11	G-16-0.5		10/9/16	0900	As EPA 60103	SOILS / SEDIMENT / SLUDGE	5 1 5 1 4	Hold
2	-12	G-16-2.5		10/9/16	0910	As EPA 60103	WATER - DRINKING / GROUND	5 1 5 1 4	Hold
3	-13	G-15-0.5		10/9/16	0920	As EPA 60103	WATER - STORM / WASTE	5 1 5 1 4	Hold
4	-14	G-15-2.5		10/9/16	0930	As EPA 60103	SOILS / SEDIMENT / SLUDGE	5 1 5 1 4	Hold
5	-15	G-14-0.5		10/9/16	0938	As EPA 60103	WATER - DRINKING / GROUND	5 1 5 1 4	Hold
6	-16	G-14-2.5		10/9/16	0944	As EPA 60103	WATER - STORM / WASTE	5 1 5 1 4	Hold
7	-17	E-14-0.5		10/9/16	0952	As EPA 60103	SOILS / SEDIMENT / SLUDGE	5 1 5 1 4	Hold
8	-18	E-14-2.5	DUP	10/9/16	1000	As EPA 60103	WATER - DRINKING / GROUND	5 1 5 1 4	Hold
9	-19	F-15-0.5		10/9/16	1010	As EPA 60103	SOILS / SEDIMENT / SLUDGE	5 1 5 1 4	Hold
10	-20	E-15-2.5		10/9/16	1020	As EPA 60103	WATER - STORM / WASTE	5 1 5 1 4	Hold

<p>1. Samples received by: Warren Howe Date: 10/9/16 Time: 1610</p> <p>2. Samples submitted for analysis: Warren Howe Date: 10/9/16 Time: 1655</p> <p>3. The following samples were analyzed: Warren Howe Date: 10/9/16 Time: 1655</p>		<p>4. Worked, holiday, after-hours work - ask for quote.</p> <p>5. Subcontract TAT is 10-15 business days. Projects requiring shorter TATs will incur a surcharge.</p> <p>6. Samples and containers will be disposed of after 15 calendar days from receipt of samples; all other samples will be disposed of after 14 calendar days after receipt of samples.</p>	
<p>7. Samples submitted for analysis: Warren Howe Date: 10/9/16 Time: 1655</p> <p>8. Hard copy reports will be provided within 45 calendar days from receipt of samples; \$200/sample/week if extended storage is requested.</p> <p>9. Storage and report fees: Warren Howe Date: 10/9/16 Time: 1655</p> <p>10. Rush TAT/PTC samples add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p>12. Samples submitted for analysis: Warren Howe Date: 10/9/16 Time: 1655</p> <p>13. Hard copy reports will be provided within 45 calendar days from receipt of samples; \$200/sample/week if extended storage is requested.</p> <p>14. Storage and report fees: Warren Howe Date: 10/9/16 Time: 1655</p> <p>15. Rush TAT/PTC samples add 2 days to analysis TAT for extraction on procedure.</p> <p>16. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>	

CHAIN OF CUSTODY RECORD

Page 4 of 5

For Laboratory Use Only ATLCC Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> On/Off	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VOL)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc. Address: 9685 Irvine City: CA 92618 State: CA Zip: 92618

Attn: John Nordenstam Email: jnordenstam@trcsolutions.com

Company: TRC Solutions, Inc. Address: 9685 Research Drive City: Irvine State: CA Zip: 92618

SEND REPORT TO: TRC Solutions, Inc. Address: 9685 Irvine City: CA 92618 State: CA Zip: 92618

Attn: John Nordenstam Email: jnordenstam@trcsolutions.com

Company: TRC Solutions, Inc. Address: 9685 Research Drive City: Irvine State: CA Zip: 92618

SEND INVOICE TO: TRC Solutions, Inc. Address: 9685 Irvine City: CA 92618 State: CA Zip: 92618

Attn: John Nordenstam Email: jnordenstam@trcsolutions.com

Company: TRC Solutions, Inc. Address: 9685 Research Drive City: Irvine State: CA Zip: 92618

ITEM	Lab No.	Sample ID / Location	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	TAT	Container	QA/QC	REMARKS
1	1603544-31	C-14-0.5	10/9/16	1140	TO-15	6010 / 7000 (Tite 22 Metals)	5	15	14	Hold
2	-32	C-14-2.0.5	10/9/16	1150	XX	8082 (PCBs)	5	15	14	Hold
3	-33	C-13-0.5	10/9/16	1200	XX	8081 (Organochlorine Pesticides)	5	15	14	Hold
4	-34	C-13-2.5	10/9/16	1246	XX	8270 (Semi-volatiles)	5	15	14	Hold
5	-35	B-13-0.5	10/9/16	1220	XX	8015 (DRO)	5	15	14	Hold
6	-36	B-13-2.5	10/9/16	1230	XX	8015 (GRO)	5	15	14	Hold
7	-37	B-14-0.5	10/9/16	1240	XX	8260 / 624 (Volatiles)	5	15	14	Hold
8	-38	B-14-2.5	10/9/16	1249	XX		5	15	14	Hold
9	-39	J-15-0.5	10/9/16	1300	XX		5	15	14	Hold
10	-40	J-15-2.5	10/9/16	1310	XX		5	15	14	Hold

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ **Signature** _____

Relinquished by: (Signature and Printed Name) _____ **Date:** 10/9/16 **Time:** 1610

Relinquished by: (Signature and Printed Name) _____ **Date:** 10/9/16 **Time:** 1655

Relinquished by: (Signature and Printed Name) _____ **Date:** 10/9/16 **Time:** 1655

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Monday, October 24, 2016 1:46 PM
To: Rachelle Arada; Nordenstam, John
Cc: Edric Caballero; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analysis of Soil Samples

Yes – we need STLC extraction/analysis for Lead on the four samples listed below.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Rachelle Arada [mailto:rachelle.arada@atlglobal.com]
Sent: Monday, October 24, 2016 11:35 AM
To: Nordenstam, John <John.Nordenstam@atlglobal.com>; Maxwell, Jeff <Jeff.Maxwell@trcsolutions.com>
Cc: Edric Caballero <edric.caballero@atlglobal.com>; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analysis of Soil Samples

Hi John and Jeff,

Please confirm if you need STLC extraction only:

please conduct STLC extractions for lead on the following samples:

- Sample B-13-0.5
- Sample B-16-0.5
- Sample C-13-0.5
- Sample C-17-0.5

Thanks,
Rachelle

From: Nordenstam, John [mailto:John.Nordenstam@atlglobal.com]
Sent: Friday, October 21, 2016 6:32 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analysis of Soil Samples
Importance: High

Rachelle – Based on the results of recent laboratory analysis of soil samples collected from LAUSD Roosevelt HS, please analyze the following additional samples:

- Sample B-13-2.5 - for arsenic and lead using EPA Method 6010B
- Sample B-14-2.5 - for arsenic using EPA Method 6010B
- Sample B-15-2.5- for arsenic using EPA Method 6010B
- Sample B-16-2.5 – for arsenic and lead using EPA Method 6010B

- Sample C-13-2.5 – for lead using EPA Method 6010B
- Sample C-17-2.5 - for lead using EPA Method 6010B

In addition, please conduct STLC extractions for lead on the following samples:

- Sample B-13-0.5
- Sample B-16-0.5
- Sample C-13-0.5
- Sample C-17-0.5

Please follow up with Jeff Maxwell if you have any questions regarding this request.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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January 11, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603544

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 09, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-13-0.5	1603544-33	Soil	10/09/16 12:00	10/09/16 16:55
B-13-0.5	1603544-35	Soil	10/09/16 12:20	10/09/16 16:55

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID C-13-0.5

Lab ID: 1603544-33

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.095	0.25	0.014	5	B7A0264	01/10/2017	01/10/17 14:32	D1, J



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID B-13-0.5

Lab ID: 1603544-35

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.029	0.25	0.014	5	B7A0264	01/10/2017	01/10/17 14:34	D1, J



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 01/11/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0264 - EPA 3010A_S									
Blank (B7A0264-BLK1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	ND	0.050			NR				
LCS (B7A0264-BS1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	1.03791	0.050	1.00000		104	80 - 120			
Duplicate (B7A0264-DUP1)				Source: 1603995-13 Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	ND	0.25		ND	NR			20	
Matrix Spike (B7A0264-MS1)				Source: 1603995-13 Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	2.42425	0.25	2.50000	ND	97.0	78 - 109			
Matrix Spike Dup (B7A0264-MSD1)				Source: 1603995-13 Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	2.39740	0.25	2.50000	ND	95.9	78 - 109	1.11	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 01/11/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L		
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC			
				mg/kg	mg/L	mg/kg	mg/L			
Units:				TTL	STLC	TTL	STLC	TCLP		
Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19		---	Perform laboratory analysis for STLC for lead	
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16		---		
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25		---		
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26		---		
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17		---		
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17		---		
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17		---		
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16		---		
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26		---		
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34		---		
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35		---		
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11		---		
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9		---		
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13		---		
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15		---		
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0		---		
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10		---		
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13		---		
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8		---		
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12		---		
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14		---		
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12		---		
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19		---		
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13		---		
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14		---		
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7		---		
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35		---		
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74		---		
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61		---		
IM-3c-0-5	11/23/2016	1604246	0.5	66	X			---	Perform laboratory analysis for STLC for arsenic	
IM-3c-2-5	11/23/2016	1604246	2.5	22	---			---		

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TtLC	STLC	TtLC	STLC	TtLC	STLC	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:				12	5.0	80	5.0			
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---	---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X	X	X	Perform laboratory analysis for STLC for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X	X	X	Perform laboratory analysis for STLC for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X	X	X	Perform laboratory analysis for STLC for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X	X	X	Perform laboratory analysis for STLC for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X	X	X	Perform laboratory analysis for STLC for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X	X	X	Perform laboratory analysis for STLC for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X	X	X	Perform laboratory analysis for STLC for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC	TCLP		
				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Units:				12	5.0	80	5.0			
Screening Level:										
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

µg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



October 17, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603545

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 09, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/17/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I-14-0.5	1603545-01	Soil	10/09/16 8:20	10/09/16 16:55
I-15-0.5	1603545-03	Soil	10/09/16 8:50	10/09/16 16:55
I-16-0.5	1603545-05	Soil	10/09/16 9:10	10/09/16 16:55
I-17-0.5	1603545-07	Soil	10/09/16 8:35	10/09/16 16:55
F-14-0.5	1603545-09	Soil	10/09/16 9:25	10/09/16 16:55
F-15-0.5	1603545-11	Soil	10/09/16 9:40	10/09/16 16:55
F-16-0.5	1603545-13	Soil	10/09/16 10:00	10/09/16 16:55
F-17-0.5	1603545-15	Soil	10/09/16 10:15	10/09/16 16:55
D-14-0.5	1603545-17	Soil	10/09/16 11:30	10/09/16 16:55
D-15-0.5	1603545-19	Soil	10/09/16 11:15	10/09/16 16:55
D-16-0.5	1603545-21	Soil	10/09/16 10:55	10/09/16 16:55
D-17-0.5	1603545-23	Soil	10/09/16 10:35	10/09/16 16:55
B-15-0.5	1603545-25	Soil	10/09/16 11:35	10/09/16 16:55
B-16-0.5	1603545-27	Soil	10/09/16 11:50	10/09/16 16:55
B-17-0.5	1603545-29	Soil	10/09/16 12:05	10/09/16 16:55
J-16-0.5	1603545-31	Soil	10/09/16 13:00	10/09/16 16:55
J-17-0.5	1603545-33	Soil	10/09/16 13:20	10/09/16 16:55
K-16-0.5	1603545-35	Soil	10/09/16 13:40	10/09/16 16:55
K-15-0.5	1603545-37	Soil	10/09/16 13:55	10/09/16 16:55
EB-2-10/9/16	1603545-39	Water	10/09/16 14:40	10/09/16 16:55

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/17/2016

Client Sample ID I-14-0.5

Lab ID: 1603545-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:43	
Lead	49	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:43	



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Client Sample ID I-15-0.5

Lab ID: 1603545-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:47	
Lead	43	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:47	



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Reported : 10/17/2016

Client Sample ID I-16-0.5

Lab ID: 1603545-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:57	
Lead	13	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:57	



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Reported : 10/17/2016

Client Sample ID I-17-0.5

Lab ID: 1603545-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 12:01	
Lead	79	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 12:01	



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Reported : 10/17/2016

Client Sample ID F-14-0.5

Lab ID: 1603545-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 12:04	
Lead	48	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 12:04	



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Reported : 10/17/2016

Client Sample ID F-15-0.5

Lab ID: 1603545-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 12:08	
Lead	28	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 12:08	



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Report To : John Nordenstam
Reported : 10/17/2016

Client Sample ID F-16-0.5

Lab ID: 1603545-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:18	
Lead	16	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:18	



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Report To : John Nordenstam
Reported : 10/17/2016

Client Sample ID F-17-0.5

Lab ID: 1603545-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:38	
Lead	29	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:38	



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Reported : 10/17/2016

Client Sample ID D-14-0.5

Lab ID: 1603545-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:42	
Lead	50	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:42	



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Client Sample ID D-15-0.5

Lab ID: 1603545-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:45	
Lead	14	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:45	



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Client Sample ID D-16-0.5

Lab ID: 1603545-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:49	
Lead	34	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:49	



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Client Sample ID D-17-0.5

Lab ID: 1603545-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:52	
Lead	76	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:52	



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Client Sample ID B-15-0.5

Lab ID: 1603545-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:56	
Lead	69	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:56	



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Client Sample ID B-16-0.5

Lab ID: 1603545-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:59	
Lead	81	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:59	



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Client Sample ID B-17-0.5

Lab ID: 1603545-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:02	
Lead	5.2	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:02	



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Client Sample ID J-16-0.5

Lab ID: 1603545-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:06	
Lead	68	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:06	



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Client Sample ID J-17-0.5

Lab ID: 1603545-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:09	
Lead	59	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:09	



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Client Sample ID K-16-0.5

Lab ID: 1603545-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:20	
Lead	9.6	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:20	



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Client Sample ID K-15-0.5

Lab ID: 1603545-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:23	
Lead	47	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:23	



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Client Sample ID EB-2-10/9/16

Lab ID: 1603545-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0418	10/14/2016	10/14/16 14:23	
Lead	ND	0.0050	0.0028	1	B6J0418	10/14/2016	10/14/16 14:23	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
4,4'-DDE	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
4,4'-DDT	ND	0.05	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
Aldrin	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
alpha-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
alpha-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
beta-BHC	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Chlordane	ND	0.25	0.03	1	B6J0332	10/12/2016	10/12/16 12:37	
delta-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
Dieldrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endosulfan I	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endosulfan II	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endrin aldehyde	ND	0.05	0.006	1	B6J0332	10/12/2016	10/12/16 12:37	
Endrin ketone	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
gamma-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
gamma-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Heptachlor	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Methoxychlor	ND	0.25	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
Toxaphene	ND	2.5	0.23	1	B6J0332	10/12/2016	10/12/16 12:37	
Surrogate: Decachlorobiphenyl	44.3 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:37	
Surrogate: Tetrachloro-m-xylene	79.5 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:37	



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Reported : 10/17/2016

Client Sample ID EB-2-10/9/16

Lab ID: 1603545-39

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1221	ND	1.0	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1232	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1242	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1248	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1254	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1260	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1262	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1268	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
<i>Surrogate: Decachlorobiphenyl</i>	<i>51.6 %</i>		<i>7 - 127</i>		B6J0332	10/12/2016	<i>10/12/16 12:43</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>85.8 %</i>		<i>14 - 122</i>		B6J0332	10/12/2016	<i>10/12/16 12:43</i>	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0371 - EPA 3050B_S									
Blank (B6J0371-BLK1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0371-BS1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	49.9885	1.0	50.0000		100	80 - 120			
Lead	53.3410	1.0	50.0000		107	80 - 120			
Duplicate (B6J0371-DUP1)				Source: 1603544-19		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	3.48272	1.0		3.13438	NR		10.5	20	
Lead	18.9251	1.0		20.2063	NR		6.55	20	
Matrix Spike (B6J0371-MS1)				Source: 1603544-19		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	105.231	1.0	125.000	3.13438	81.7	59 - 103			
Lead	122.796	1.0	125.000	20.2063	82.1	34 - 129			
Matrix Spike Dup (B6J0371-MSD1)				Source: 1603544-19		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	104.867	1.0	125.000	3.13438	81.4	59 - 103	0.347	20	
Lead	123.053	1.0	125.000	20.2063	82.3	34 - 129	0.209	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0372 - EPA 3050B_S

Blank (B6J0372-BLK1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0372-BS1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	42.2664	1.0	50.0000		84.5	80 - 120			
Lead	45.7538	1.0	50.0000		91.5	80 - 120			

Duplicate (B6J0372-DUP1)

Source: 1603545-13

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	2.77969	1.0		2.87958	NR		3.53	20	
Lead	14.7163	1.0		16.0714	NR		8.80	20	

Matrix Spike (B6J0372-MS1)

Source: 1603545-13

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	95.2822	1.0	125.000	2.87958	73.9	59 - 103			
Lead	110.190	1.0	125.000	16.0714	75.3	34 - 129			

Matrix Spike Dup (B6J0372-MSD1)

Source: 1603545-13

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	93.7858	1.0	125.000	2.87958	72.7	59 - 103	1.58	20	
Lead	107.546	1.0	125.000	16.0714	73.2	34 - 129	2.43	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0418 - EPA 3010A_W

Blank (B6J0418-BLK1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0418-BS1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	0.967790	0.010	1.00000		96.8	80 - 120			
Lead	0.981258	0.0050	1.00000		98.1	80 - 120			

Duplicate (B6J0418-DUP1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0418-MS1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.28443	0.010	2.50000	ND	91.4	74 - 123			
Lead	2.32926	0.0050	2.50000	ND	93.2	78 - 109			

Matrix Spike Dup (B6J0418-MSD1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.21269	0.010	2.50000	ND	88.5	74 - 123	3.19	20	
Lead	2.26268	0.0050	2.50000	ND	90.5	78 - 109	2.90	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0332-BLK1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3495		0.500000		69.9	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3986		0.500000		79.7	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4142		0.500000		82.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4376		0.500000		87.5	14 - 122		

LCS (B6J0332-BS1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.406435	0.05	0.500000		81.3	59 - 109		
4,4'-DDD [2C]	0.418670	0.05	0.500000		83.7	59 - 109		
4,4'-DDE	0.411130	0.05	0.500000		82.2	63 - 101		
4,4'-DDE [2C]	0.411210	0.05	0.500000		82.2	63 - 101		
4,4'-DDT	0.267165	0.05	0.500000		53.4	36 - 96		
4,4'-DDT [2C]	0.291695	0.05	0.500000		58.3	36 - 96		
Aldrin	0.417880	0.02	0.500000		83.6	64 - 96		
Aldrin [2C]	0.425215	0.02	0.500000		85.0	64 - 96		
alpha-BHC	0.415650	0.02	0.500000		83.1	63 - 92		
alpha-BHC [2C]	0.428550	0.02	0.500000		85.7	63 - 92		
alpha-Chlordane	0.401385	0.02	0.500000		80.3	63 - 101		
alpha-Chlordane [2C]	0.404315	0.02	0.500000		80.9	63 - 101		
beta-BHC	0.402630	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.418125	0.02	0.500000		83.6	58 - 95		
delta-BHC	0.296250	0.02	0.500000		59.2	37 - 107		
delta-BHC [2C]	0.302675	0.02	0.500000		60.5	37 - 107		
Dieldrin	0.417180	0.05	0.500000		83.4	62 - 102		
Dieldrin [2C]	0.421635	0.05	0.500000		84.3	62 - 102		
Endosulfan I	0.399945	0.02	0.500000		80.0	61 - 97		
Endosulfan I [2C]	0.406900	0.02	0.500000		81.4	61 - 97		
Endosulfan II	0.404650	0.05	0.500000		80.9	61 - 103		
Endosulfan II [2C]	0.398985	0.05	0.500000		79.8	61 - 103		
Endosulfan sulfate	0.349275	0.05	0.500000		69.9	60 - 112		
Endosulfan Sulfate [2C]	0.365450	0.05	0.500000		73.1	60 - 112		
Endrin	0.470725	0.05	0.500000		94.1	62 - 103		
Endrin [2C]	0.482695	0.05	0.500000		96.5	62 - 103		
Endrin aldehyde	0.376935	0.05	0.500000		75.4	64 - 116		
Endrin aldehyde [2C]	0.383165	0.05	0.500000		76.6	64 - 116		
Endrin ketone	0.346120	0.05	0.500000		69.2	56 - 113		
Endrin ketone [2C]	0.359040	0.05	0.500000		71.8	56 - 113		
gamma-BHC	0.416855	0.02	0.500000		83.4	64 - 95		
gamma-BHC [2C]	0.428785	0.02	0.500000		85.8	64 - 95		



Certificate of Analysis

TRC
9685 Research Drive
Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/17/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0332-BS1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

gamma-Chlordane	0.398875	0.02	0.500000		79.8	64 - 99		
gamma-Chlordane [2C]	0.401970	0.02	0.500000		80.4	64 - 99		
Heptachlor	0.403775	0.02	0.500000		80.8	64 - 93		
Heptachlor [2C]	0.411645	0.02	0.500000		82.3	64 - 93		
Heptachlor epoxide	0.407030	0.02	0.500000		81.4	65 - 98		
Heptachlor epoxide [2C]	0.415800	0.02	0.500000		83.2	65 - 98		
Methoxychlor	0.283360	0.25	0.500000		56.7	0 - 141		
Methoxychlor [2C]	0.320960	0.25	0.500000		64.2	0 - 141		
Surrogate: Decachlorobiphenyl	0.3916		0.500000		78.3	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.4032		0.500000		80.6	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4181		0.500000		83.6	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4563		0.500000		91.3	14 - 122		

LCS Dup (B6J0332-BSD1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.396620	0.05	0.500000		79.3	59 - 109	2.44	20
4,4'-DDD [2C]	0.405160	0.05	0.500000		81.0	59 - 109	3.28	20
4,4'-DDE	0.401385	0.05	0.500000		80.3	63 - 101	2.40	20
4,4'-DDE [2C]	0.398485	0.05	0.500000		79.7	63 - 101	3.14	20
4,4'-DDT	0.262370	0.05	0.500000		52.5	36 - 96	1.81	20
4,4'-DDT [2C]	0.280405	0.05	0.500000		56.1	36 - 96	3.95	20
Aldrin	0.406225	0.02	0.500000		81.2	64 - 96	2.83	20
Aldrin [2C]	0.410325	0.02	0.500000		82.1	64 - 96	3.56	20
alpha-BHC	0.403465	0.02	0.500000		80.7	63 - 92	2.98	20
alpha-BHC [2C]	0.413065	0.02	0.500000		82.6	63 - 92	3.68	20
alpha-Chlordane	0.390295	0.02	0.500000		78.1	63 - 101	2.80	20
alpha-Chlordane [2C]	0.391205	0.02	0.500000		78.2	63 - 101	3.30	20
beta-BHC	0.390770	0.02	0.500000		78.2	58 - 95	2.99	20
beta-BHC [2C]	0.403065	0.02	0.500000		80.6	58 - 95	3.67	20
delta-BHC	0.287245	0.02	0.500000		57.4	37 - 107	3.09	20
delta-BHC [2C]	0.293250	0.02	0.500000		58.6	37 - 107	3.16	20
Dieldrin	0.406965	0.05	0.500000		81.4	62 - 102	2.48	20
Dieldrin [2C]	0.408560	0.05	0.500000		81.7	62 - 102	3.15	20
Endosulfan I	0.390960	0.02	0.500000		78.2	61 - 97	2.27	20
Endosulfan I [2C]	0.395850	0.02	0.500000		79.2	61 - 97	2.75	20
Endosulfan II	0.396670	0.05	0.500000		79.3	61 - 103	1.99	20
Endosulfan II [2C]	0.387015	0.05	0.500000		77.4	61 - 103	3.05	20
Endosulfan sulfate	0.343820	0.05	0.500000		68.8	60 - 112	1.57	20
Endosulfan Sulfate [2C]	0.356380	0.05	0.500000		71.3	60 - 112	2.51	20
Endrin	0.461280	0.05	0.500000		92.3	62 - 103	2.03	20
Endrin [2C]	0.468460	0.05	0.500000		93.7	62 - 103	2.99	20
Endrin aldehyde	0.370645	0.05	0.500000		74.1	64 - 116	1.68	20



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/17/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0332-BSD1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Endrin aldehyde [2C]	0.378480	0.05	0.500000		75.7	64 - 116	1.23	20	
Endrin ketone	0.337815	0.05	0.500000		67.6	56 - 113	2.43	20	
Endrin ketone [2C]	0.346240	0.05	0.500000		69.2	56 - 113	3.63	20	
gamma-BHC	0.404790	0.02	0.500000		81.0	64 - 95	2.94	20	
gamma-BHC [2C]	0.414240	0.02	0.500000		82.8	64 - 95	3.45	20	
gamma-Chlordane	0.387960	0.02	0.500000		77.6	64 - 99	2.77	20	
gamma-Chlordane [2C]	0.389675	0.02	0.500000		77.9	64 - 99	3.11	20	
Heptachlor	0.393130	0.02	0.500000		78.6	64 - 93	2.67	20	
Heptachlor [2C]	0.398780	0.02	0.500000		79.8	64 - 93	3.17	20	
Heptachlor epoxide	0.398080	0.02	0.500000		79.6	65 - 98	2.22	20	
Heptachlor epoxide [2C]	0.404040	0.02	0.500000		80.8	65 - 98	2.87	20	
Methoxychlor	0.277810	0.25	0.500000		55.6	0 - 141	1.98	20	
Methoxychlor [2C]	0.311890	0.25	0.500000		62.4	0 - 141	2.87	20	
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3830</i>		<i>0.500000</i>		<i>76.6</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3757</i>		<i>0.500000</i>		<i>75.1</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4058</i>		<i>0.500000</i>		<i>81.2</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4393</i>		<i>0.500000</i>		<i>87.9</i>	<i>14 - 122</i>			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/17/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4394 0.500000 87.9 7 - 127
0.4706 0.500000 94.1 14 - 122

LCS (B6J0332-BS2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.09639	0.50	5.00000		81.9	68 - 96			
Aroclor 1260	4.42498	0.50	5.00000		88.5	64 - 106			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4399 0.500000 88.0 7 - 127
0.4658 0.500000 93.2 14 - 122

LCS Dup (B6J0332-BSD2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.03858	0.50	5.00000		80.8	68 - 96	1.42	20	
Aroclor 1260	4.38676	0.50	5.00000		87.7	64 - 106	0.868	20	

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4253 0.500000 85.1 7 - 127
0.4520 0.500000 90.4 14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/17/2016

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOCC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
Condition	Y	N	Condition
1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC
2. HEADSPACE (NOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg C
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Client: ☐ ATL
FedEx: ☐ OnTrac
GSO: ☐
Other: ☐

Company: TRC SOLUTIONS, INC
Address: 9685 RESEARCH DRIVE
City: IRVINE
State: CA
Zip: 92618

Attn: JOHN NORDENSTAM
Email: jnordenstam@trcsolutions.com
Company: TRC SOLUTIONS, INC
Address: 9685 RESEARCH DRIVE
City: IRVINE
State: CA
Zip: 92618

Tel: 949-841-7460
Fax: 949-727-7311

SEND REPORT TO: ☒ same as SEND REPORT TO

Project Name:	Quote No:	Special Instructions/Comments:	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
LAUSD ROOSEVELT HS	E 16131		8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	5-ary; 6-tetrad; 7 = Canister	<input type="checkbox"/> Routine
Project No: 265642-0000 / 7A02	PO #: 100816		8015 (GRO)	WATER - DRINKING / GROUND	Type: 1=Tube; 2=Vial; 3=Filter; 4=Pin; 5=Jar; 6=tetrad; 7 = Canister	<input type="checkbox"/> Caltrans
Sampler: Giuseppe Cefalu			8015 (DRO)	WATER - STORM / WASTE	Material: 1=Glass; 2=Plastic; 3=Metal	<input type="checkbox"/> Legal
			8081 (Organochlorine Pesticides)	SOILS / WIFE / FILTER		<input type="checkbox"/> RWQCB
			8082 (PCBs)	WATER - DRINKING / GROUND		<input type="checkbox"/> Level IV
			6010 / 7000 (Title 22 Metals)	SOIL / SEDIMENT / SLUDGE		
			TO-15	WATER - STORM / WASTE		
			AS EPA 6015	SOILS / WIFE / FILTER		
			PB EPA 6015	WATER - DRINKING / GROUND		
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ADVANCED TECHNOLOGY
LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATCCOC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other: _____	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	Condition	Y N
		1. CHILLED	<input type="checkbox"/>
		2. HEADSPACE (VOA)	<input type="checkbox"/>
		3. CONTAINER INTACT	<input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>
		5. # OF SAMPLES MATCH COC	<input type="checkbox"/>
		6. PRESERVED	<input type="checkbox"/>
		7. COOLER TEMP. deg. C:	<input type="checkbox"/>

Company: TPC SOLUTIONS, INC	Address: 9685 RESEARCH DRIVE	Tel: 949-341-7467
Attn: JOHN NORDENSTAM jnordenstam@tpcsolutions.com	City: FURNACE	State: CA Zip: 92618
Company: TPC SOLUTIONS, INC	Address: 9685 RESEARCH DRIVE	City: FURNACE State: CA Zip: 92618
Attn: _____	City: _____	State: _____ Zip: _____

SEND REPORT TO:	SEND INVOICE TO:
Attn: _____	Attn: _____
Company: _____	Company: _____
Address: _____	Address: _____
City: _____	City: _____
State: _____	State: _____
Zip: _____	Zip: _____

Project Name: LAUSD ROOSEVELT HS	Quote No: E167131	Special Instructions/Comments:
Project No.: 265642-0000/TA02	PO #: _____	
Sampler: GIUSEPPE CECALU	100816	

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603545-31	J-16-0.5		10/9/16	1300	8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	5 1 5 1 4	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2 Material: 1-Glass, 2-Plastic, 3-Metal Type: 1-Tube, 2-VOA, 3-Liter, 4-Pint, 5-Lar, 6-Tedlar, 7-Canister
2	32	J-16-2.5		10/9/16	1310	8082 (PCBs)	WATER - DRINKING / GROUND	5 1 5 1 4	
3	33	J-17-0.5		10/9/16	1320	8015 (GRO)	WATER - STORM / WASTE	5 1 5 1 4	
4	34	J-17-2.5		10/9/16	1330	8015 (DRO)	SOLIDS / WIPE / FILTER	5 1 5 1 4	
5	35	K-16-0.5		10/9/16	1340	8081 (Organochlorine Pesticides)	SOIL / SEDIMENT / SLUDGE	5 1 5 1 4	
6	36	K-16-2.5		10/9/16	1350	8270 (Semi-volatiles)	WATER - DRINKING / GROUND	5 1 5 1 4	
7	37	K-15-0.5		10/9/16	1355	8015 (GRO)	WATER - STORM / WASTE	5 1 5 1 4	
8	38	K-15-2.5		10/9/16	1405	8082 (PCBs)	SOLIDS / WIPE / FILTER	5 1 5 1 4	
9	39	IB-2-10/9/16		10/9/16	1440	8015 (DRO)	SOIL / SEDIMENT / SLUDGE	5 1 5 1 4	
10						8260 / 624 (Volatiles)	WATER - DRINKING / GROUND	5 1 5 1 4	

1. Sample received hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM. 2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM. 3. The following turnaround time conditions apply: TAT = 0: 100% Surcharge SAME BUSINESS DAY (if received by 9:00 AM) TAT = 1: 300% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 2: 500% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3: 700% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4: 200% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM) 4. Weekend, holiday, after-hours work - ask for quote. 5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge. 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for 1 yr (5) years from report date. 8. Third copy reports will be disposed of after 45 calendar days from report date. 9. Storage: - Liquid & solid samples: Complementary storage for forty (4) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested. - Air samples: Complementary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Hard copy and regenerated reports (EDOs): \$17.50 per hard copy report requested; \$50.00 per regenerated/reformatted report; \$35 per processed EDO. 10. Rush TAT/STC samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.
---	---

Relinquished by: (Signature and Printed Name) Giuseppe Cecalu	Date: 10/9/16	Time: 1335	Received by: (Signature and Printed Name) Warren Howe	Date: 10/9/16	Time: 1605
Relinquished by: (Signature and Printed Name) Warren Howe	Date: 10/9/16	Time: 1605	Received by: (Signature and Printed Name) Edmund Rodriguez	Date: 10-9-16	Time: 1655
Relinquished by: (Signature and Printed Name) Edmund Rodriguez	Date: 10/9/16	Time: 1655	Received by: (Signature and Printed Name) Edmund Rodriguez	Date: 10-9-16	Time: 1655

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Tuesday, October 11, 2016 2:35 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan; Surrency, Ross; Maxwell, Jeff
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Yes, please change Sample ID IB-2-10/9/16 to EB-2-10/9/16.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Tuesday, October 11, 2016 8:19 AM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Thank you John.

There were two sets of CoC received on Sunday, the other water sample ID is IB-2-10/9/16. Should I go ahead and also change this to EB-2-10/9/16? Attached is a copy of the CoC.

Thank you,
Carmen

From: Nordenstam, John [mailto:jnordenstam@trcsolutions.com]
Sent: Monday, October 10, 2016 5:43 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Please see my comments in red below.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Carmen Aguila [<mailto:Carmen@atlglobal.com>]
Sent: Monday, October 10, 2016 1:31 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: LAUSD Roosevelt HS, 265642.0000 / TA02

Hi John,

We have a couple of notes/questions for the samples received last weekend.

- Samples received 10/8- the IB-1-10/8/16 samples is not marked for analysis Sample ID should be EB-1-10/8/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082
- Sample IB-1-10/9/16 received 10/9- the CoC is marked for EPA 8021, based on your email I believed this should be EPA 8081. Sample ID should be EB-1-10/9/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082

Please advise. Attached are the CoC's for these samples.

Thank you,

Carmen Aguila

Sample Control



Advanced Technology Laboratories

www.atlglobal.com

Tel: (562) 989-4045 ext. 245

Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

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November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603545

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 09, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I-14-0.5	1603545-01	Soil	10/09/16 8:20	10/09/16 16:55
I-14-2.5	1603545-02	Soil	10/09/16 8:30	10/09/16 16:55
I-15-0.5	1603545-03	Soil	10/09/16 8:50	10/09/16 16:55
I-15-2.5	1603545-04	Soil	10/09/16 9:00	10/09/16 16:55
I-16-0.5	1603545-05	Soil	10/09/16 9:10	10/09/16 16:55
I-16-2.5	1603545-06	Soil	10/09/16 9:20	10/09/16 16:55
I-17-0.5	1603545-07	Soil	10/09/16 8:35	10/09/16 16:55
I-17-2.5	1603545-08	Soil	10/09/16 8:45	10/09/16 16:55
F-14-0.5	1603545-09	Soil	10/09/16 9:25	10/09/16 16:55
F-14-2.5	1603545-10	Soil	10/09/16 9:35	10/09/16 16:55
F-15-0.5	1603545-11	Soil	10/09/16 9:40	10/09/16 16:55
F-15-2.5	1603545-12	Soil	10/09/16 9:50	10/09/16 16:55
F-16-0.5	1603545-13	Soil	10/09/16 10:00	10/09/16 16:55
F-16-2.5	1603545-14	Soil	10/09/16 10:10	10/09/16 16:55
F-17-0.5	1603545-15	Soil	10/09/16 10:15	10/09/16 16:55
F-17-2.5	1603545-16	Soil	10/09/16 10:25	10/09/16 16:55
D-14-0.5	1603545-17	Soil	10/09/16 11:30	10/09/16 16:55
D-14-2.5	1603545-18	Soil	10/09/16 11:40	10/09/16 16:55
D-15-0.5	1603545-19	Soil	10/09/16 11:15	10/09/16 16:55
D-15-2.5	1603545-20	Soil	10/09/16 11:25	10/09/16 16:55
D-16-0.5	1603545-21	Soil	10/09/16 10:55	10/09/16 16:55
D-16-2.5	1603545-22	Soil	10/09/16 11:05	10/09/16 16:55
D-17-0.5	1603545-23	Soil	10/09/16 10:35	10/09/16 16:55
D-17-2.5	1603545-24	Soil	10/09/16 10:45	10/09/16 16:55
B-15-0.5	1603545-25	Soil	10/09/16 11:35	10/09/16 16:55
B-15-2.5	1603545-26	Soil	10/09/16 11:45	10/09/16 16:55
B-16-0.5	1603545-27	Soil	10/09/16 11:50	10/09/16 16:55
B-16-2.5	1603545-28	Soil	10/09/16 12:00	10/09/16 16:55
B-17-0.5	1603545-29	Soil	10/09/16 12:05	10/09/16 16:55
B-17-2.5	1603545-30	Soil	10/09/16 12:10	10/09/16 16:55
J-16-0.5	1603545-31	Soil	10/09/16 13:00	10/09/16 16:55
J-16-2.5	1603545-32	Soil	10/09/16 13:10	10/09/16 16:55
J-17-0.5	1603545-33	Soil	10/09/16 13:20	10/09/16 16:55
J-17-2.5	1603545-34	Soil	10/09/16 13:30	10/09/16 16:55
K-16-0.5	1603545-35	Soil	10/09/16 13:40	10/09/16 16:55
K-16-2.5	1603545-36	Soil	10/09/16 13:50	10/09/16 16:55
K-15-0.5	1603545-37	Soil	10/09/16 13:55	10/09/16 16:55



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

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Reported : 11/08/2016

K-15-2.5	1603545-38	Soil	10/09/16 14:05	10/09/16 16:55
EB-2-10/9/16	1603545-39	Water	10/09/16 14:40	10/09/16 16:55
F-14-0.5 DUP	1603545-40	Soil	10/09/16 9:25	10/09/16 16:55
D-14-2.5 DUP	1603545-41	Soil	10/09/16 11:40	10/09/16 16:55
B-16-0.5 DUP	1603545-42	Soil	10/09/16 11:50	10/09/16 16:55
K-16-2.5 DUP	1603545-43	Soil	10/09/16 13:50	10/09/16 16:55

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-14-0.5

Lab ID: 1603545-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:43	
Lead	49	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:43	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-14-2.5

Lab ID: 1603545-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:18	
Lead	6.1	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:18	



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Client Sample ID I-15-0.5

Lab ID: 1603545-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:47	
Lead	43	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:47	



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Reported : 11/08/2016

Client Sample ID I-15-2.5

Lab ID: 1603545-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:19	
Lead	53	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:19	



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Client Sample ID I-16-0.5

Lab ID: 1603545-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 11:57	
Lead	13	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 11:57	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-16-2.5

Lab ID: 1603545-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:20	
Lead	35	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:20	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-17-0.5

Lab ID: 1603545-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.7	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 12:01	
Lead	79	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 12:01	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-17-2.5

Lab ID: 1603545-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:21	
Lead	2.4	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:21	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-14-0.5

Lab ID: 1603545-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 12:04	
Lead	48	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 12:04	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-14-2.5

Lab ID: 1603545-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:22	
Lead	8.8	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:22	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-15-0.5

Lab ID: 1603545-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	0.70	1	B6J0371	10/14/2016	10/17/16 12:08	
Lead	28	1.0	0.11	1	B6J0371	10/14/2016	10/17/16 12:08	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-15-2.5

Lab ID: 1603545-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:23	
Lead	16	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:23	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-16-0.5

Lab ID: 1603545-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:18	
Lead	16	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:18	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-16-2.5

Lab ID: 1603545-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:25	
Lead	42	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:25	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-17-0.5

Lab ID: 1603545-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:38	
Lead	29	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:38	



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Client Sample ID F-17-2.5

Lab ID: 1603545-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:26	
Lead	55	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:26	



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Client Sample ID D-14-0.5

Lab ID: 1603545-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:42	
Lead	50	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:42	



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Client Sample ID D-14-2.5

Lab ID: 1603545-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:30	
Lead	16	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:30	



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Client Sample ID D-15-0.5

Lab ID: 1603545-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:45	
Lead	14	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:45	



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Client Sample ID D-15-2.5

Lab ID: 1603545-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:27	
Lead	29	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:27	



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Client Sample ID D-16-0.5

Lab ID: 1603545-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:49	
Lead	34	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:49	



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Client Sample ID D-16-2.5

Lab ID: 1603545-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:30	
Lead	33	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:30	



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Client Sample ID D-17-0.5

Lab ID: 1603545-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:52	
Lead	76	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:52	



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Client Sample ID D-17-2.5

Lab ID: 1603545-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6K0038	11/02/2016	11/03/16 11:31	
Lead	45	1.0	0.11	1	B6K0038	11/02/2016	11/03/16 11:31	



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Client Sample ID B-15-0.5

Lab ID: 1603545-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:56	
Lead	69	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:56	



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Client Sample ID B-15-2.5

Lab ID: 1603545-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.0	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:42	
Lead	33	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:42	



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Client Sample ID B-16-0.5

Lab ID: 1603545-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 12:59	
Lead	81	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 12:59	

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.7	1.0	0.057	20	B6J0822	10/28/2016	10/28/16 16:26	



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Client Sample ID B-16-2.5

Lab ID: 1603545-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:52	
Lead	76	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:52	



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Client Sample ID B-17-0.5

Lab ID: 1603545-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:02	
Lead	5.2	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:02	



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Client Sample ID B-17-2.5

Lab ID: 1603545-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:35	
Lead	53	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:35	



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Client Sample ID J-16-0.5

Lab ID: 1603545-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:06	
Lead	68	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:06	



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Client Sample ID J-16-2.5

Lab ID: 1603545-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:39	
Lead	20	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:39	



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Client Sample ID J-17-0.5

Lab ID: 1603545-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:09	
Lead	59	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:09	



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Client Sample ID J-17-2.5

Lab ID: 1603545-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:40	
Lead	3.8	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:40	



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Client Sample ID K-16-0.5

Lab ID: 1603545-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:20	
Lead	9.6	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:20	



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Client Sample ID K-16-2.5

Lab ID: 1603545-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:33	
Lead	13	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:33	



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Client Sample ID K-15-0.5

Lab ID: 1603545-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6J0372	10/14/2016	10/17/16 13:23	
Lead	47	1.0	0.11	1	B6J0372	10/14/2016	10/17/16 13:23	



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Client Sample ID K-15-2.5

Lab ID: 1603545-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.84	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:44	J
Lead	2.2	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:44	



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Client Sample ID EB-2-10/9/16

Lab ID: 1603545-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0418	10/14/2016	10/14/16 14:23	
Lead	ND	0.0050	0.0028	1	B6J0418	10/14/2016	10/14/16 14:23	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
4,4'-DDE	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
4,4'-DDT	ND	0.05	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
Aldrin	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
alpha-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
alpha-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
beta-BHC	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Chlordane	ND	0.25	0.03	1	B6J0332	10/12/2016	10/12/16 12:37	
delta-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
Dieldrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endosulfan I	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endosulfan II	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endrin	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Endrin aldehyde	ND	0.05	0.006	1	B6J0332	10/12/2016	10/12/16 12:37	
Endrin ketone	ND	0.05	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
gamma-BHC	ND	0.02	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
gamma-Chlordane	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Heptachlor	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0332	10/12/2016	10/12/16 12:37	
Methoxychlor	ND	0.25	0.004	1	B6J0332	10/12/2016	10/12/16 12:37	
Toxaphene	ND	2.5	0.23	1	B6J0332	10/12/2016	10/12/16 12:37	
Surrogate: Decachlorobiphenyl	44.3 %		7 - 127		B6J0332	10/12/2016	10/12/16 12:37	
Surrogate: Tetrachloro-m-xylene	79.5 %		14 - 122		B6J0332	10/12/2016	10/12/16 12:37	



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Client Sample ID EB-2-10/9/16

Lab ID: 1603545-39

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1221	ND	1.0	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1232	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1242	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1248	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1254	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1260	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1262	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
Aroclor 1268	ND	0.50	0.06	1	B6J0332	10/12/2016	10/12/16 12:43	
<i>Surrogate: Decachlorobiphenyl</i>	<i>51.6 %</i>		<i>7 - 127</i>		B6J0332	10/12/2016	<i>10/12/16 12:43</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>85.8 %</i>		<i>14 - 122</i>		B6J0332	10/12/2016	<i>10/12/16 12:43</i>	



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Client Sample ID F-14-0.5 DUP

Lab ID: 1603545-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:09	D1
Lead	42	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:09	D1



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Client Sample ID D-14-2.5 DUP

Lab ID: 1603545-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:36	
Lead	1.9	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:36	



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Client Sample ID B-16-0.5 DUP

Lab ID: 1603545-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	15	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:46	
Lead	70	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:46	



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Client Sample ID K-16-2.5 DUP

Lab ID: 1603545-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:40	
Lead	25	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:40	



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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0371 - EPA 3050B_S									
Blank (B6J0371-BLK1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0371-BS1)				Prepared: 10/14/2016 Analyzed: 10/17/2016					
Arsenic	49.9885	1.0	50.0000		100	80 - 120			
Lead	53.3410	1.0	50.0000		107	80 - 120			
Duplicate (B6J0371-DUP1)				Source: 1603544-19		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	3.48272	1.0		3.13438	NR		10.5	20	
Lead	18.9251	1.0		20.2063	NR		6.55	20	
Matrix Spike (B6J0371-MS1)				Source: 1603544-19		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	105.231	1.0	125.000	3.13438	81.7	59 - 103			
Lead	122.796	1.0	125.000	20.2063	82.1	34 - 129			
Matrix Spike Dup (B6J0371-MSD1)				Source: 1603544-19		Prepared: 10/14/2016 Analyzed: 10/17/2016			
Arsenic	104.867	1.0	125.000	3.13438	81.4	59 - 103	0.347	20	
Lead	123.053	1.0	125.000	20.2063	82.3	34 - 129	0.209	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0372 - EPA 3050B_S

Blank (B6J0372-BLK1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0372-BS1)

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	42.2664	1.0	50.0000		84.5	80 - 120			
Lead	45.7538	1.0	50.0000		91.5	80 - 120			

Duplicate (B6J0372-DUP1)

Source: 1603545-13

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	2.77969	1.0		2.87958	NR		3.53	20	
Lead	14.7163	1.0		16.0714	NR		8.80	20	

Matrix Spike (B6J0372-MS1)

Source: 1603545-13

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	95.2822	1.0	125.000	2.87958	73.9	59 - 103			
Lead	110.190	1.0	125.000	16.0714	75.3	34 - 129			

Matrix Spike Dup (B6J0372-MSD1)

Source: 1603545-13

Prepared: 10/14/2016 Analyzed: 10/17/2016

Arsenic	93.7858	1.0	125.000	2.87958	72.7	59 - 103	1.58	20	
Lead	107.546	1.0	125.000	16.0714	73.2	34 - 129	2.43	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0418 - EPA 3010A_W

Blank (B6J0418-BLK1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0418-BS1)

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	0.967790	0.010	1.00000		96.8	80 - 120			
Lead	0.981258	0.0050	1.00000		98.1	80 - 120			

Duplicate (B6J0418-DUP1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0418-MS1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.28443	0.010	2.50000	ND	91.4	74 - 123			
Lead	2.32926	0.0050	2.50000	ND	93.2	78 - 109			

Matrix Spike Dup (B6J0418-MSD1)

Source: 1603519-01

Prepared: 10/14/2016 Analyzed: 10/14/2016

Arsenic	2.21269	0.010	2.50000	ND	88.5	74 - 123	3.19	20	
Lead	2.26268	0.0050	2.50000	ND	90.5	78 - 109	2.90	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0567 - EPA 3050B_S

Blank (B6J0567-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0567-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	46.9369	1.0	50.0000		93.9	80 - 120			
Lead	47.4370	1.0	50.0000		94.9	80 - 120			

Duplicate (B6J0567-DUP1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	10		ND	NR			20	
Lead	30.6479	10		23.1921	NR		27.7	20	R

Matrix Spike (B6J0567-MS1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	121.299	5.0	125.000	3.69901	94.1	59 - 103			
Lead	155.509	5.0	125.000	23.1921	106	34 - 129			

Matrix Spike Dup (B6J0567-MSD1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	117.649	5.0	125.000	3.69901	91.2	59 - 103	3.06	20	
Lead	148.279	5.0	125.000	23.1921	100	34 - 129	4.76	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0812 - EPA 3050B_S

Blank (B6J0812-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0812-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	40.7673	1.0	50.0000		81.5	80 - 120			
Lead	43.9380	1.0	50.0000		87.9	80 - 120			

Duplicate (B6J0812-DUP1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	2.12716	1.0		2.81603	NR		27.9	20	R
Lead	17.6780	1.0		21.7051	NR		20.5	20	R

Matrix Spike (B6J0812-MS1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	56.9830	1.0	125.628	2.81603	43.1	59 - 103			M1
Lead	80.4784	1.0	125.628	21.7051	46.8	34 - 129			

Matrix Spike Dup (B6J0812-MSD1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	43.2135	1.0	125.628	2.81603	32.2	59 - 103	27.5	20	M1, R
Lead	68.8367	1.0	125.628	21.7051	37.5	34 - 129	15.6	20	



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9685 Research Drive
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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0038 - EPA 3050B_S

Blank (B6K0038-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0038-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	49.1369	1.0	50.0000		98.3	80 - 120			
Lead	51.4526	1.0	50.0000		103	80 - 120			

Duplicate (B6K0038-DUP1)

Source: 1603544-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	2.73643	1.0		2.98618	NR		8.73	20	
Lead	28.2383	1.0		27.6718	NR		2.03	20	

Matrix Spike (B6K0038-MS1)

Source: 1603544-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	99.7586	1.0	125.000	2.98618	77.4	59 - 103			
Lead	123.557	1.0	125.000	27.6718	76.7	34 - 129			

Matrix Spike Dup (B6K0038-MSD1)

Source: 1603544-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	98.6443	1.0	125.000	2.98618	76.5	59 - 103	1.12	20	
Lead	123.762	1.0	125.000	27.6718	76.9	34 - 129	0.166	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0039 - EPA 3050B_S

Blank (B6K0039-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0039-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	45.4850	1.0	50.0000		91.0	80 - 120			
Lead	47.6611	1.0	50.0000		95.3	80 - 120			

Duplicate (B6K0039-DUP1)

Source: 1603545-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	13.2568	1.0		12.2373	NR		8.00	20	
Lead	55.4264	1.0		53.4235	NR		3.68	20	

Matrix Spike (B6K0039-MS1)

Source: 1603545-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	116.131	1.0	125.000	12.2373	83.1	59 - 103			
Lead	154.624	1.0	125.000	53.4235	81.0	34 - 129			

Matrix Spike Dup (B6K0039-MSD1)

Source: 1603545-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	108.020	1.0	125.000	12.2373	76.6	59 - 103	7.24	20	
Lead	149.264	1.0	125.000	53.4235	76.7	34 - 129	3.53	20	



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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
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STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0822 - STLC_S Extraction

Blank (B6J0822-BLK1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead ND 1.0 NR

LCS (B6J0822-BS1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 2.12487 2.00000 106 80 - 120

Duplicate (B6J0822-DUP1)

Source: 1603756-03

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 0.940548 1.0 0.954158 NR 1.44 20 J

Matrix Spike (B6J0822-MS1)

Source: 1603756-03

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 3.28102 2.50000 0.954158 93.1 44 - 130

Matrix Spike Dup (B6J0822-MSD1)

Source: 1603756-03

Prepared: 10/28/2016 Analyzed: 10/28/2016

Lead 3.34056 2.50000 0.954158 95.5 44 - 130 1.80 20



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0332-BLK1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3495		0.500000		69.9	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3986		0.500000		79.7	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4142		0.500000		82.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4376		0.500000		87.5	14 - 122		

LCS (B6J0332-BS1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.406435	0.05	0.500000		81.3	59 - 109		
4,4'-DDD [2C]	0.418670	0.05	0.500000		83.7	59 - 109		
4,4'-DDE	0.411130	0.05	0.500000		82.2	63 - 101		
4,4'-DDE [2C]	0.411210	0.05	0.500000		82.2	63 - 101		
4,4'-DDT	0.267165	0.05	0.500000		53.4	36 - 96		
4,4'-DDT [2C]	0.291695	0.05	0.500000		58.3	36 - 96		
Aldrin	0.417880	0.02	0.500000		83.6	64 - 96		
Aldrin [2C]	0.425215	0.02	0.500000		85.0	64 - 96		
alpha-BHC	0.415650	0.02	0.500000		83.1	63 - 92		
alpha-BHC [2C]	0.428550	0.02	0.500000		85.7	63 - 92		
alpha-Chlordane	0.401385	0.02	0.500000		80.3	63 - 101		
alpha-Chlordane [2C]	0.404315	0.02	0.500000		80.9	63 - 101		
beta-BHC	0.402630	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.418125	0.02	0.500000		83.6	58 - 95		
delta-BHC	0.296250	0.02	0.500000		59.2	37 - 107		
delta-BHC [2C]	0.302675	0.02	0.500000		60.5	37 - 107		
Dieldrin	0.417180	0.05	0.500000		83.4	62 - 102		
Dieldrin [2C]	0.421635	0.05	0.500000		84.3	62 - 102		
Endosulfan I	0.399945	0.02	0.500000		80.0	61 - 97		
Endosulfan I [2C]	0.406900	0.02	0.500000		81.4	61 - 97		
Endosulfan II	0.404650	0.05	0.500000		80.9	61 - 103		
Endosulfan II [2C]	0.398985	0.05	0.500000		79.8	61 - 103		
Endosulfan sulfate	0.349275	0.05	0.500000		69.9	60 - 112		
Endosulfan Sulfate [2C]	0.365450	0.05	0.500000		73.1	60 - 112		
Endrin	0.470725	0.05	0.500000		94.1	62 - 103		
Endrin [2C]	0.482695	0.05	0.500000		96.5	62 - 103		
Endrin aldehyde	0.376935	0.05	0.500000		75.4	64 - 116		
Endrin aldehyde [2C]	0.383165	0.05	0.500000		76.6	64 - 116		
Endrin ketone	0.346120	0.05	0.500000		69.2	56 - 113		
Endrin ketone [2C]	0.359040	0.05	0.500000		71.8	56 - 113		
gamma-BHC	0.416855	0.02	0.500000		83.4	64 - 95		
gamma-BHC [2C]	0.428785	0.02	0.500000		85.8	64 - 95		



Certificate of Analysis

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0332-BS1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

gamma-Chlordane	0.398875	0.02	0.500000		79.8	64 - 99		
gamma-Chlordane [2C]	0.401970	0.02	0.500000		80.4	64 - 99		
Heptachlor	0.403775	0.02	0.500000		80.8	64 - 93		
Heptachlor [2C]	0.411645	0.02	0.500000		82.3	64 - 93		
Heptachlor epoxide	0.407030	0.02	0.500000		81.4	65 - 98		
Heptachlor epoxide [2C]	0.415800	0.02	0.500000		83.2	65 - 98		
Methoxychlor	0.283360	0.25	0.500000		56.7	0 - 141		
Methoxychlor [2C]	0.320960	0.25	0.500000		64.2	0 - 141		
Surrogate: Decachlorobiphenyl	0.3916		0.500000		78.3	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.4032		0.500000		80.6	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4181		0.500000		83.6	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4563		0.500000		91.3	14 - 122		

LCS Dup (B6J0332-BSD1)

Prepared: 10/12/2016 Analyzed: 10/12/2016

4,4'-DDD	0.396620	0.05	0.500000		79.3	59 - 109	2.44	20
4,4'-DDD [2C]	0.405160	0.05	0.500000		81.0	59 - 109	3.28	20
4,4'-DDE	0.401385	0.05	0.500000		80.3	63 - 101	2.40	20
4,4'-DDE [2C]	0.398485	0.05	0.500000		79.7	63 - 101	3.14	20
4,4'-DDT	0.262370	0.05	0.500000		52.5	36 - 96	1.81	20
4,4'-DDT [2C]	0.280405	0.05	0.500000		56.1	36 - 96	3.95	20
Aldrin	0.406225	0.02	0.500000		81.2	64 - 96	2.83	20
Aldrin [2C]	0.410325	0.02	0.500000		82.1	64 - 96	3.56	20
alpha-BHC	0.403465	0.02	0.500000		80.7	63 - 92	2.98	20
alpha-BHC [2C]	0.413065	0.02	0.500000		82.6	63 - 92	3.68	20
alpha-Chlordane	0.390295	0.02	0.500000		78.1	63 - 101	2.80	20
alpha-Chlordane [2C]	0.391205	0.02	0.500000		78.2	63 - 101	3.30	20
beta-BHC	0.390770	0.02	0.500000		78.2	58 - 95	2.99	20
beta-BHC [2C]	0.403065	0.02	0.500000		80.6	58 - 95	3.67	20
delta-BHC	0.287245	0.02	0.500000		57.4	37 - 107	3.09	20
delta-BHC [2C]	0.293250	0.02	0.500000		58.6	37 - 107	3.16	20
Dieldrin	0.406965	0.05	0.500000		81.4	62 - 102	2.48	20
Dieldrin [2C]	0.408560	0.05	0.500000		81.7	62 - 102	3.15	20
Endosulfan I	0.390960	0.02	0.500000		78.2	61 - 97	2.27	20
Endosulfan I [2C]	0.395850	0.02	0.500000		79.2	61 - 97	2.75	20
Endosulfan II	0.396670	0.05	0.500000		79.3	61 - 103	1.99	20
Endosulfan II [2C]	0.387015	0.05	0.500000		77.4	61 - 103	3.05	20
Endosulfan sulfate	0.343820	0.05	0.500000		68.8	60 - 112	1.57	20
Endosulfan Sulfate [2C]	0.356380	0.05	0.500000		71.3	60 - 112	2.51	20
Endrin	0.461280	0.05	0.500000		92.3	62 - 103	2.03	20
Endrin [2C]	0.468460	0.05	0.500000		93.7	62 - 103	2.99	20
Endrin aldehyde	0.370645	0.05	0.500000		74.1	64 - 116	1.68	20



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B6J0332 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0332-BSD1) - Continued

Prepared: 10/12/2016 Analyzed: 10/12/2016

Endrin aldehyde [2C]	0.378480	0.05	0.500000		75.7	64 - 116	1.23	20	
Endrin ketone	0.337815	0.05	0.500000		67.6	56 - 113	2.43	20	
Endrin ketone [2C]	0.346240	0.05	0.500000		69.2	56 - 113	3.63	20	
gamma-BHC	0.404790	0.02	0.500000		81.0	64 - 95	2.94	20	
gamma-BHC [2C]	0.414240	0.02	0.500000		82.8	64 - 95	3.45	20	
gamma-Chlordane	0.387960	0.02	0.500000		77.6	64 - 99	2.77	20	
gamma-Chlordane [2C]	0.389675	0.02	0.500000		77.9	64 - 99	3.11	20	
Heptachlor	0.393130	0.02	0.500000		78.6	64 - 93	2.67	20	
Heptachlor [2C]	0.398780	0.02	0.500000		79.8	64 - 93	3.17	20	
Heptachlor epoxide	0.398080	0.02	0.500000		79.6	65 - 98	2.22	20	
Heptachlor epoxide [2C]	0.404040	0.02	0.500000		80.8	65 - 98	2.87	20	
Methoxychlor	0.277810	0.25	0.500000		55.6	0 - 141	1.98	20	
Methoxychlor [2C]	0.311890	0.25	0.500000		62.4	0 - 141	2.87	20	
Surrogate: Decachlorobiphenyl	0.3830		0.500000		76.6	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3757		0.500000		75.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4058		0.500000		81.2	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4393		0.500000		87.9	14 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0332 - GCSEMI_PCB/PEST_W

Blank (B6J0332-BLK2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4394 0.500000 87.9 7 - 127
0.4706 0.500000 94.1 14 - 122

LCS (B6J0332-BS2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.09639	0.50	5.00000		81.9	68 - 96			
Aroclor 1260	4.42498	0.50	5.00000		88.5	64 - 106			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4399 0.500000 88.0 7 - 127
0.4658 0.500000 93.2 14 - 122

LCS Dup (B6J0332-BSD2)

Prepared: 10/12/2016 Analyzed: 10/12/2016

Aroclor 1016	4.03858	0.50	5.00000		80.8	68 - 96	1.42	20	
Aroclor 1260	4.38676	0.50	5.00000		87.7	64 - 106	0.868	20	

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4253 0.500000 85.1 7 - 127
0.4520 0.500000 90.4 14 - 122



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac <input type="checkbox"/> GSO <input type="checkbox"/> Other:	Condition <input type="checkbox"/> Y <input type="checkbox"/> N	Condition <input type="checkbox"/> Y <input type="checkbox"/> N
1. CHILLED 2. HEADSPACE (NOA) 3. CONTAINER INTACT 4. SEALED		5. # OF SAMPLES MATCH COC 6. PRESERVED 7. COOLER TEMP. deg C 8.	

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-841-7460	
City: IRVINE		State: CA		Zip: 92618	
Attn: JOHN NORDENSTAM		Email: jnordenstam@trcsolutions.com		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		Address:		State:	
City: IRVINE		State: CA		Zip: 92618	

Project Name: LAUSD ROOSEVELT HS		Quote No: E 16131		Special Instructions/Comments:	
Project No: 265642-0000 TAO2		PO #: 100816			
Sampler: Giuseppe Cefalu					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603545-01	I-14-0.5		10/9/16	0820
2	-02	I-14-2.5		10/9/16	0830
3	-03	I-15-0.5		10/9/16	0850
4	-04	I-15-2.5		10/9/16	0900
5	-05	I-16-0.5		10/9/16	0910
6	-06	I-16-2.5		10/9/16	0920
7	-07	I-17-0.5		10/9/16	0835
8	-08	I-17-2.5		10/9/16	0845
9	-09	I-14-0.5		10/9/16	0925
10	-10	I-14-2.5		10/9/16	0935

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)		SOIL / SEDIMENT / SLUDGE		5	1	5	Routine Caltrans Legal RWQCB Level IV
8015 (GRO)				5	1	5	
8015 (DRO)				5	1	5	
8270 (Semi-Volatiles)				5	1	5	
8081 (Organochlorine Pesticides)				5	1	5	
8082 (PCBs)				5	1	5	
6010 / 7000 (Title 22 Metals)				5	1	5	
TO-15				5	1	5	
AS EPA 606/B				5	1	5	
PB EPA 606/B				5	1	5	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature	
Date: 10/9/16		Time: 1535	
Date: 10/9/16		Time: 1605	
Date: 10/9/16		Time: 1655	

CHAIN OF CUSTODY RECORD

Page 2 of 4

Instruction: Complete all shaded areas.

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7467	
Attn: JOHN NORDENSTAM		City: FALVINE		Fax: 949-727-7341	
Company: TRC SOLUTIONS, INC		State: CA		Zip: 92618	
Address: 9685 RESEARCH DRIVE		City: FALVINE		State: CA	
City: FALVINE		State: CA		Zip: 92618	

Project Name: LAUSD-ROOSEVELT HS		Quote No: 616131	Special Instructions/Comments:	
Project No.: 265642-0000/TA02		PO #: 100816		
Sampler: Giuseppe Cefalu				
ITEM	Lab No.	Sample ID / Location	Date	Time
1	1603545-11	F-15-0.5	10/9/16	0940
2	-12	F-15-2.5	10/9/16	0930
3	-13	F-16-0.5	10/9/16	1000
4	-14	F-16-2.5	10/9/16	1010
5	-15	F-17-0.5	10/9/16	1015
6	-16	F-17-2.5	10/9/16	1025
7	-17	D-14-0.5	10/9/16	1130
8	-18	D-14-2.5	10/9/16	1140
9	-19	D-15-0.5	10/9/16	1115
10	-20	D-15-2.5	10/9/16	1125

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: 10/9/16 Time: 1535

Submitter Print Name: _____

Received by: (Signature and Printed Name) Warren Howe Date: 10/9/16 Time: 1535

Received by: (Signature and Printed Name) Edna Rodriguez Date: 10/9/16 Time: 1605

Received by: (Signature and Printed Name) Edna Rodriguez Date: 10/9/16 Time: 1655

CHAIN OF CUSTODY RECORD

Page 4 of 4

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt			
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO		2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg. C: <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company: **TRC SOLUTIONS, INC** Address: **9685 RESEARCH DRIVE** Tel: **949-341-7467**
 City: **FALVINE** State: **CA** Zip: **92618** Fax: **949-727-7811**
 SEND REPORT TO: Email: **AS same as SEND REPORT TO**

Attn: **JOHN NORDENSTAM jnordenstam@trcsolutions.com** Attn: **TRC SOLUTIONS, INC**
 Company: **TRC SOLUTIONS, INC** Address: **9685 RESEARCH DRIVE**
 City: **FALVINE** State: **CA** Zip: **92618**

Project Name: **LAUSD ROOSEVELT HS** Quote No: **E167131** Special Instructions/Comments:
 Project No.: **265642-0000/TA02** PO #: **100816**
 Sampler: **GIUSEPPE CECAL**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603545-31	J-16-0.5		10/9/16	1300	8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	5 1 5 1 4	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2 Material: 1-Glass, 2-Plastic, 3-Metal
2	32	J-16-2.5		10/9/16	1310	8082 (PCBs)	WATER - DRINKING / GROUND	5 1 5 1 4	
3	33	J-17-0.5		10/9/16	1320	8015 (DRO)	WATER - STORM / WASTE	5 1 5 1 4	
4	34	J-17-2.5		10/9/16	1330	8015 (GRO)	SOLIDS / WIPE / FILTER	5 1 5 1 4	
5	35	K-16-0.5		10/9/16	1340	8081 (Organochlorine Pesticides)	AQUEOUS / LAYERED - OIL	5 1 5 1 4	
6	36	K-16-2.5		10/9/16	1350	8270 (Semi-volatiles)		5 1 5 1 4	
7	37	K-15-0.5		10/9/16	1355	8015 (DRO)		5 1 5 1 4	
8	38	K-15-2.5		10/9/16	1405	8015 (GRO)		5 1 5 1 4	
9	39	IB-2-10/9/16		10/9/16	1440	8082 (PCBs)		5 3 3 4	
10						8260 / 624 (Volatiles)		5	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: (Signature and Printed Name) **Warren Hout** Date: **10/9/16** Time: **1535**
 Relinquished by: (Signature and Printed Name) **Warren Hout** Date: **10/9/16** Time: **1605**
 Relinquished by: (Signature and Printed Name) **Edmund Rodriguez** Date: **10-9-16** Time: **1655**

Relinquished by: (Signature and Printed Name) **Warren Hout** Date: **10/9/16** Time: **1535**
 Relinquished by: (Signature and Printed Name) **Warren Hout** Date: **10/9/16** Time: **1605**
 Relinquished by: (Signature and Printed Name) **Edmund Rodriguez** Date: **10-9-16** Time: **1655**

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Tuesday, October 11, 2016 2:35 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan; Surrency, Ross; Maxwell, Jeff
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Yes, please change Sample ID IB-2-10/9/16 to EB-2-10/9/16.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Tuesday, October 11, 2016 8:19 AM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Thank you John.

There were two sets of CoC received on Sunday, the other water sample ID is IB-2-10/9/16. Should I go ahead and also change this to EB-2-10/9/16? Attached is a copy of the CoC.

Thank you,
Carmen

From: Nordenstam, John [mailto:jnordenstam@trcsolutions.com]
Sent: Monday, October 10, 2016 5:43 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Diane Galvan
Subject: RE: LAUSD Roosevelt HS, 265642.0000 / TA02

Carmen – Please see my comments in red below.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Carmen Aguila [<mailto:Carmen@atlglobal.com>]
Sent: Monday, October 10, 2016 1:31 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Diane Galvan <Diane@atlglobal.com>
Subject: LAUSD Roosevelt HS, 265642.0000 / TA02

Hi John,

We have a couple of notes/questions for the samples received last weekend.

- Samples received 10/8- the IB-1-10/8/16 samples is not marked for analysis Sample ID should be EB-1-10/8/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082
- Sample IB-1-10/9/16 received 10/9- the CoC is marked for EPA 8021, based on your email I believed this should be EPA 8081. Sample ID should be EB-1-10/9/16 and should be analyzed for Arsenic using EPA Method 6010B, Lead using EPA Method 6010B, Organochlorine Pesticides using EPA Method 8081A, and PCBs using EPA Method 8082

Please advise. Attached are the CoC's for these samples.

Thank you,

Carmen Aguila

Sample Control



Advanced Technology Laboratories

www.atlglobal.com

Tel: (562) 989-4045 ext. 245

Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

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Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, October 17, 2016 5:50 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: LAUSD Roosevelt HS PEA - Duplicate Samples for October 8 and 9, 2016
Attachments: DOC101716-004.pdf

Rachelle – as per our discussion today, duplicate samples were not collected during the field sampling activities at LAUSD Roosevelt HS on October 8 and 9, 2016. Please pull an aliquot from the following samples to be used as a duplicate sample and perform the analyses as indicated below. Attached are copies of the COCs with the samples marked that should have duplicates.

Samples collected on October 8, 2016

- Sample F-9-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-9-2.5' - HOLD
- Sample B-10-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample G-13-2.5' – HOLD

Samples collected on October 9, 2016

- Sample H-17-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample E-14-2.5' - HOLD
- Sample C-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample B-13-2.5' – HOLD

- Sample F-14-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample D-14-2.5' – HOLD
- Sample B-16-0.5' - analyze for Arsenic and Lead using EPA Method 6010B
- Sample K-16-2.5' – HOLD

I will be sending you addition instructions for sample compositing and analysis tomorrow. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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CHAIN OF CUSTODY RECORD

Page 1 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only		Sample Conditions Upon Receipt	
Method of Transport		Condition	Y N
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED	<input checked="" type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> On/Off	2. HEADSPACE (N/A)	<input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	3. CONTAINER IN CONTACT	<input type="checkbox"/>
<input type="checkbox"/> Other:		4. COOLER TEMP. DEG. C	<input type="checkbox"/>

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-841-7468	
City: IRVINE		State: CA		Zip: 92618	
Attn: JOHN NORDENSTAM		Email: jnordenstam@trcsolutions.com		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		Address:		State: CA	
City: IRVINE		State: CA		Zip: 92618	

Project Name: LAUSD ROOSEVELT HS		Quote No: E 16T131		Special Instructions/Comments:	
Project No: 2 65642-0000 / TAO 2		PO #: 100816			
Sampler: Giuseppe Cefalu					
ITEM	Lab No.	Sample ID / Location	Date	Time	Remarks
1	1603545-01	I-14-0.5	10/9/16	0820	
2	-02	I-14-2.5	10/9/16	0830	
3	-03	I-15-0.5	10/9/16	0850	
4	-04	I-15-2.5	10/9/16	0900	
5	-05	I-16-0.5	10/9/16	0910	
6	-06	I-16-2.5	10/9/16	0920	
7	-07	I-17-0.5	10/9/16	0835	
8	-08	I-17-2.5	10/9/16	0845	
9	-09	I-14-0.5 DUP	10/9/16	0925	
10	-10	I-14-2.5	10/9/16	0935	

Encircle Sample Matrix		Encircle or Write Requested Analysis		Remarks	
SOIL / SEDIMENT / SLUDGE	SOLIDS / WASTE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	QA/QC
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Legal
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As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature	
Submitter Print Name		Date	
Edward Rodriguez		10/9/16	
Signature		Time	
10:05		15:35	

ADVANCED TECHNOLOGY
LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only		Sample Conditions Upon Receipt	
Method of Transport	Condition	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> AIL	<input type="checkbox"/> 5. OF SAMPLES MATCH COC	<input type="checkbox"/> Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnToc	<input type="checkbox"/> 6. PRESERVED	<input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other	<input type="checkbox"/> 7. COOLER TEMP. REC'D	<input type="checkbox"/> N
<input type="checkbox"/> Other		<input type="checkbox"/> 8. SEALED	<input type="checkbox"/> N

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7467	
Attn: JOHN NORDENSTAM		City: IRVINE		Fax: 949-727-7311	
Company: JOHN NORDENSTAM JORDENSTAM CONSULTANTS-CON		State: CA		Zip: 92618	
Address: TRC SOLUTIONS, INC		City: IRVINE		Tel: 949-341-7467	
Address: 9685 RESEARCH DRIVE		City: IRVINE		Fax: 949-727-7311	
City: IRVINE		State: CA		Zip: 92618	

Project Name: LAUSD-ROOSEVELT HS		Quote No: 16131		Special Instructions/Comments:	
Project No.: 265642-0000/TA02		PO #: 100816			
Sampler: Giuseppe Cefalù					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603545-11	F-15-0.5		10/9/16	0940
2	1603545-12	F-15-2.5		10/9/16	0950
3	1603545-13	F-16-0.5		10/9/16	1000
4	1603545-14	F-16-2.5		10/9/16	1010
5	1603545-15	F-17-0.5		10/9/16	1015
6	1603545-16	F-17-2.5		10/9/16	1025
7	1603545-17	D-13-0.5		10/9/16	1130
8	1603545-18	D-14-2.5	DUP	10/9/16	1140
9	1603545-19	D-15-0.5		10/9/16	1115
10	1603545-20	D-15-2.5		10/9/16	1125

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)	8015 (GRO)	8015 (PRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	6010 / 7000 (Total 22 Metals)	TO-15
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>							

CHAIN OF CUSTODY RECORD

Page 3 of 4

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> Onsite	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> UPS	<input type="checkbox"/> Other	<input type="checkbox"/> 2. HEADSPACE (cc)	<input type="checkbox"/> 6. PRESERVED
		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP, deg C
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. OTHER

Company: TRC SOLUTIONS INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7467	
Attn: JOHN NORDENSTAM		City: IRVINE		Fax: 949-723-7311	
Company: TRC SOLUTIONS, INC		State: CA		Zip: 92618	
Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA	
City: IRVINE		State: CA		Zip: 92618	

ITEM	Lab No.	Sample ID / Location	Sample Description	Quote No:	Special Instructions/Comments:	Endrite or Write Requested Analysis	Endrite Sample Matrix	Container	QA/QC
1	1603545-21	D-16-0.5		616131		TO-15		5	4
2	-22	D-16-2.5				AS EPA 6010/5		5	4
3	-23	D-17-0.5				AS EPA 6010/5		5	4
4	-24	D-17-2.5				AS EPA 6010/5		5	4
5	-25	B-15-0.5				AS EPA 6010/5		5	4
6	-26	B-15-2.5				AS EPA 6010/5		5	4
7	-27	B-16-0.5	DUP			AS EPA 6010/5		5	4
8	-28	B-16-2.5				AS EPA 6010/5		5	4
9	-29	B-17-0.5				AS EPA 6010/5		5	4
10	-30	B-17-2.5				AS EPA 6010/5		5	4

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Relinquished by: (Signature and Printed Name)	Date:	Time:
Warren Howe	10/9/16	1535
Relinquished by: (Signature and Printed Name)	Date:	Time:
Warren Howe	10/9/16	1605
Relinquished by: (Signature and Printed Name)	Date:	Time:
Warren Howe	10/9/16	1655

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 4 of 4

For Laboratory Use Only

ATLCOG Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt			
		Condition			
		Y	N	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (VOLUME)	<input type="checkbox"/>	6. PRESERVED	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT	<input type="checkbox"/>	7. COOLER TEMP, DEG. C:	
<input type="checkbox"/> Other		4. SEALED	<input type="checkbox"/>		

Instruction: Complete all shaded areas.

Company: THE SOLUTIONS, INC.

Address: 9685 RESEARCH DRIVE

City: FORT WORTH

State: CA

Zip: 76108

Tel: 909-341-7467

Fax: 949-727-7311

SEND REPORT TO:

ATTN: SCOTT ALLEN

SEND INVOICE TO:

AS same as SEND REPORT TO

4 SEALED ☐ ☐

Attn:	JOHN NORDENSTAM	Email:	jnordenstam@tcsolutions.com	SEND INVOICE TO:	AS SAME AS SEND REPORT TO
Company:	TCS SOLUTIONS, INC				
Address:	9685 RESEARCH DRIVE				
City:	IRVINE	State:	CA	Zip:	92618

[illegible]

Sample receiving hours: 7:30 AM to 7:30 PM Monday – Friday, Saturday 8:00 AM to 12:00 PM
 Sample delivery hours: 7:30 AM to 7:30 PM Monday – Friday, Saturday 8:00 AM to 12:00 PM
 The following turnaround time conditions apply:
 TAT – 0: 30K Surcharge, SAME BUSINESS DAY (COR 5:00 PM)
 TAT – 1: 100K Surcharge, NEXT BUSINESS DAY (COR 5:00 PM)
 TAT – 2: 200K Surcharge, TWO BUSINESS DAYS (COR 5:00 PM)
 TAT – 3: 30K Surcharge, ROB BUSINESS DAY (COR 5:00 PM)
 TAT – 4: 20K Surcharge, 4TH BUSINESS DAY (COR 5:00 PM)
 TAT – 5: 20K Surcharge, 5TH BUSINESS DAY (COR 5:00 PM)
 Weekend, holiday and non-business days are not counted.
 Subcontract TAT is 10-15 business days. Projects requiring shorter TAT will incur a surcharge
 respective to the subcontractor (i.e., ask for quote).
 Liquid and vapor samples will be disposed of after 45 calendar days from receipt of samples, air
 samples will be disposed of after 14 calendar days after receipt of samples.
 7. Electronic records maintained for 6 or 15 years from report date
 8. Hard copy reports will be disposed of after 15 calendar days from report date
 9. Storage and Report Fees:
 a. Samples: Complementary storage for forty-five (45) calendar days from receipt of samples, \$2/sample/month if extended storage of hold is requested.
 Air samples: Complementary storage for ten (10) calendar days from receipt of samples, \$30/sample/week if extended storage is requested.
 10. Empty and regenerated reports/EDUs: \$15.00 per hard copy requested, \$50.00 per regenerated/EDUs per report.
 11. Rush (24/7)SITC samples: add 2 days to analysis TAT for extraction on procedure.
 12. Unanalyzed samples will be disposed of after 27 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name	Signature
Joseph C. Calk	Joseph C. Calk
Warren H. H. H.	Warren H. H. H.
Edmund Rodriguez	Edmund Rodriguez

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Monday, October 24, 2016 1:46 PM
To: Rachelle Arada; Nordenstam, John
Cc: Edric Caballero; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analysis of Soil Samples

Yes – we need STLC extraction/analysis for Lead on the four samples listed below.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Rachelle Arada [mailto:rachelle.arada@atlglobal.com]
Sent: Monday, October 24, 2016 11:35 AM
To: Nordenstam, John <John.Nordenstam@atlglobal.com>; Maxwell, Jeff <Jeff.Maxwell@trcsolutions.com>
Cc: Edric Caballero <edric.caballero@atlglobal.com>; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analysis of Soil Samples

Hi John and Jeff,

Please confirm if you need STLC extraction only:

please conduct STLC extractions for lead on the following samples:

- Sample B-13-0.5
- Sample B-16-0.5
- Sample C-13-0.5
- Sample C-17-0.5

Thanks,
Rachelle

From: Nordenstam, John [mailto:John.Nordenstam@atlglobal.com]
Sent: Friday, October 21, 2016 6:32 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analysis of Soil Samples
Importance: High

Rachelle – Based on the results of recent laboratory analysis of soil samples collected from LAUSD Roosevelt HS, please analyze the following additional samples:

- Sample B-13-2.5 - for arsenic and lead using EPA Method 6010B
- Sample B-14-2.5 - for arsenic using EPA Method 6010B
- Sample B-15-2.5- for arsenic using EPA Method 6010B
- Sample B-16-2.5 – for arsenic and lead using EPA Method 6010B

- Sample C-13-2.5 – for lead using EPA Method 6010B
- Sample C-17-2.5 - for lead using EPA Method 6010B

In addition, please conduct STLC extractions for lead on the following samples:

- Sample B-13-0.5
- Sample B-16-0.5
- Sample C-13-0.5
- Sample C-17-0.5

Please follow up with Jeff Maxwell if you have any questions regarding this request.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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October 24, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603631

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 15, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram to the left.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I-11-0.5	1603631-01	Soil	10/15/16 9:00	10/15/16 16:45
H-11-0.5	1603631-03	Soil	10/15/16 9:30	10/15/16 16:45
G-11-0.5	1603631-05	Soil	10/15/16 11:00	10/15/16 16:45
PE-1-0.5	1603631-07	Soil	10/15/16 11:30	10/15/16 16:45
K-17-0.5	1603631-09	Soil	10/15/16 12:00	10/15/16 16:45
K-17-0.5-DUP	1603631-10	Soil	10/15/16 12:10	10/15/16 16:45
PE-4-0.5	1603631-12	Soil	10/15/16 12:40	10/15/16 16:45
H-5-0.5	1603631-14	Soil	10/15/16 13:15	10/15/16 16:45
H-4-0.5	1603631-16	Soil	10/15/16 14:00	10/15/16 16:45
H-3-0.5	1603631-18	Soil	10/15/16 14:20	10/15/16 16:45
H-3-0.5 DUP	1603631-19	Soil	10/15/16 14:30	10/15/16 16:45
MB-4-0.5	1603631-22	Soil	10/15/16 14:42	10/15/16 16:45
AA-653-1-0.5	1603631-23	Soil	10/15/16 14:43	10/15/16 16:45
EB-4-10/15/16	1603631-25	Water	10/15/16 15:10	10/15/16 16:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID I-11-0.5

Lab ID: 1603631-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:10	D1
Lead	15	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:10	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID H-11-0.5

Lab ID: 1603631-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:11	D1
Lead	14	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:11	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID G-11-0.5

Lab ID: 1603631-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:12	D1
Lead	13	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:12	D1



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID PE-1-0.5

Lab ID: 1603631-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.7	5.0	3.5	5	B6J0567	10/20/2016	10/21/16 15:31	D1
Lead	8.4	5.0	0.56	5	B6J0567	10/20/2016	10/21/16 15:31	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID K-17-0.5

Lab ID: 1603631-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.3	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:17	D1
Lead	9.7	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:17	D1



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID K-17-0.5-DUP

Lab ID: 1603631-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:53	
Lead	8.2	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:53	



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID PE-4-0.5

Lab ID: 1603631-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:18	D1
Lead	17	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:18	D1



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID H-5-0.5

Lab ID: 1603631-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:55	
Lead	3.9	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:55	



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID H-4-0.5

Lab ID: 1603631-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:56	
Lead	8.5	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:56	



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID H-3-0.5

Lab ID: 1603631-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.5	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:19	D1
Lead	17	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:19	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID H-3-0.5 DUP

Lab ID: 1603631-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:20	D1
Lead	14	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:20	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID MB-4-0.5

Lab ID: 1603631-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.1	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 11:02	
Lead	18	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 11:02	



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID AA-653-1-0.5

Lab ID: 1603631-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 11:03	
Lead	21	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 11:03	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Client Sample ID EB-4-10/15/16

Lab ID: 1603631-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:35	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:25	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:25	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:25	
Surrogate: Decachlorobiphenyl	47.7 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:25	
Surrogate: Tetrachloro-m-xylene	71.3 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:25	



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Reported : 10/24/2016

Client Sample ID EB-4-10/15/16

Lab ID: 1603631-25

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
<i>Surrogate: Decachlorobiphenyl</i>	<i>48.3 %</i>		<i>7 - 127</i>		B6J0485	10/17/2016	<i>10/17/16 16:19</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>83.5 %</i>		<i>14 - 122</i>		B6J0485	10/17/2016	<i>10/17/16 16:19</i>	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0567 - EPA 3050B_S									
Blank (B6J0567-BLK1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0567-BS1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	46.9369	1.0	50.0000		93.9	80 - 120			
Lead	47.4370	1.0	50.0000		94.9	80 - 120			
Duplicate (B6J0567-DUP1)				Source: 1603543-44 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	ND	10		ND	NR			20	
Lead	30.6479	10		23.1921	NR		27.7	20	R
Matrix Spike (B6J0567-MS1)				Source: 1603543-44 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	121.299	5.0	125.000	3.69901	94.1	59 - 103			
Lead	155.509	5.0	125.000	23.1921	106	34 - 129			
Matrix Spike Dup (B6J0567-MSD1)				Source: 1603543-44 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	117.649	5.0	125.000	3.69901	91.2	59 - 103	3.06	20	
Lead	148.279	5.0	125.000	23.1921	100	34 - 129	4.76	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99			
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99			
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93			
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93			
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98			
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98			
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141			
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141			
Surrogate: Decachlorobiphenyl	0.3766		0.500000		75.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3709		0.500000		74.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4193		0.500000		83.9	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4522		0.500000		90.4	14 - 122			

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20	
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20	
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20	
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20	
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20	
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20	
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20	
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20	
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20	
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20	
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20	
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20	
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20	
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20	
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20	
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20	
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20	
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20	
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20	
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20	
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20	
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20	
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20	
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20	
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20	
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20	
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
Surrogate: Decachlorobiphenyl	0.3734		0.500000		74.7	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3662		0.500000		73.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4183		0.500000		83.7	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4519		0.500000		90.4	14 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/24/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3834 0.500000 76.7 7 - 127
0.4914 0.500000 98.3 14 - 122

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3873 0.500000 77.5 7 - 127
0.5015 0.500000 100 14 - 122

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3735 0.500000 74.7 7 - 127
0.4908 0.500000 98.2 14 - 122



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/24/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 3

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc		Address: 9685 Research Drive		Tel: 949-341-7167	
Attn: John Nordenstam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions Inc		Email: john.nordenstam@trcsolutions.com		Fax: 949-727-7311	
Address: 9685 Research Drive		State: CA		Zip: 92618	
City: Irvine		State: CA		Zip: 92618	

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Special Instructions/Comments:
1	1603631-01	I-11-0.5		10/15/16	0900	
2	-02	I-11-2.5		10/15/16	0910	
3	-03	H-11-0.5		10-15-16	0930	
4	-04	H-11-2.5		10-15-16	0940	
5	-05	G-11-0.5		10-15-16	1100	
6	-06	G-11-2.5		10-15-16	1115	
7	-07	PE-1-0.5		10/15/16	1130	
8	-08	PE-1-2.5		10/15/16	1145	
9	-09	K-17-0.5		10/15/16	1200	
10	-10	K-17-0.5-DUP		10/15/16	1210	

<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples submitted after 3:00 PM, are considered received the following Business day at 8:00 AM.</p> <p>3. The following turnaround time conditions apply:</p> <p>4. Next Business Day (COB 5:00 PM) if received by 9:00 AM</p> <p>5. TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)</p> <p>6. TAT = 2: 50% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)</p> <p>7. TAT = 3: 30% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)</p> <p>8. TAT = 4: 20% Surcharge 5TH BUSINESS DAY (COB 5:00 PM)</p> <p>9. TAT = 5: NO Surcharge 5th Business Day (COB 5:00 PM)</p> <p>10. Weekend, Holiday, or inclement weather - ask for quote.</p> <p>11. Subsequent TAT = 15 days after receipt of samples - ask for quote.</p> <p>12. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>13. Electronic records maintained for five (5) years from report date.</p> <p>14. Storage and Report Fees:</p> <p>15. Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>16. Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$50.00 per regenerated/reformat? ed report; \$25.00 per hard copy report requested; \$50.00 per regenerated/reformat? ed report.</p> <p>17. Request TAT/STLC - add 2 days to analysis TAT for evaluation on procedure.</p> <p>18. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>Signature: _____</p> <p>Submitter Print Name: _____</p>	
<p>Relinquished by: (Signature and Printed Name) Warren Howe</p> <p>Relinquished by: (Signature and Printed Name) Warren Howe</p> <p>Relinquished by: (Signature and Printed Name) Warren Howe</p>		<p>Date: 10/15/16 Time: 1630</p> <p>Date: 10/15/16 Time: 1645</p> <p>Date: 10/15/16 Time: 1645</p>	

CHAIN OF CUSTODY RECORD

Page 2 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATL/COC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (NDA)	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/>		3. CONTAINER INTACT	<input type="checkbox"/> 6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/>		4. SEALED	<input type="checkbox"/> 7. COOLER TEMP. deg C: <input type="checkbox"/>

Company:	TRC Solutions Inc	Address:	9685 Research Drive	Tel:	949-341-7167
Attn:	John Nordenstam	City:	Irvine	State:	CA
Company:	TRC Solutions Inc	Email:	jordenstam@trcsolutions.com		
Address:	9685 Research Drive	Zip:	92618	SEND INVOICE TO:	X same as SEND REPORT TO
City:	Irvine	State:	CA	Zip:	92618

Project Name:	LAUSD Roosevelt HS	Quote No:	E16I131	Special Instructions/Comments:	
Project No.:	265642, 000/002	PO #:	100816		
Sampler:	Warron Howe				
ITEM	Lab No.	Sample ID / Location	Date	Time	
1	1603631-11	K-17-2.5	10.15.16	1220	
2	-12	PE-4-0.5	10.15.16	1240	
3	-13	PE-4-2.5	10.15.16	1250	
4	-14	H5-0.5	10.15.16	1315	
5	-15	H5-2.5	10.15.16	1325	
6	-16	H-4-0.5	10.15.16	1400	
7	-17	H-4-2.5	10.15.16	1410	
8	-18	H-3-0.5	10.15.16	1420	
9	-19	H-3-0.5 DUP	10.15.16	1430	
10	-20	H-3-2.5	10.15.16	1440	

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.	7. Samples will be disposed of after 14 calendar days after receipt of samples.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.	8. Hard copy reports will be disposed of after 45 calendar days from report date.
3. The following turnaround time can be guaranteed: 100% BUSINESS DAY (if received by 9:00 AM)	9. Storage and Report Fees:
TAT = 1 - 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)	- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$21/sample/month if extended storage or hold is requested
TAT = 2 - 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)	- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested
TAT = 3 - 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)	- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
TAT = 4 - 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)	- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
TAT = 5 - 10% Surcharge 5TH BUSINESS DAY (COB 5:00 PM)	- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
4. Workweek: Monday - Friday, 8:00 AM - 5:00 PM	- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge	- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air	- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.

Relinquished by: (Signature and Printed Name)	Signature	Date:	10/15/16	Time:	1530
Relinquished by: (Signature and Printed Name)	Signature	Date:	10/15/16	Time:	1645
Relinquished by: (Signature and Printed Name)	Signature	Date:	10/15/16	Time:	1645



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603631

Client Reference : LAUSD Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 15, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I-11-0.5	1603631-01	Soil	10/15/16 9:00	10/15/16 16:45
I-11-2.5	1603631-02	Soil	10/15/16 9:10	10/15/16 16:45
H-11-0.5	1603631-03	Soil	10/15/16 9:30	10/15/16 16:45
H-11-2.5	1603631-04	Soil	10/15/16 9:40	10/15/16 16:45
G-11-0.5	1603631-05	Soil	10/15/16 11:00	10/15/16 16:45
G-11-2.5	1603631-06	Soil	10/15/16 11:15	10/15/16 16:45
PE-1-0.5	1603631-07	Soil	10/15/16 11:30	10/15/16 16:45
PE-1-2.5	1603631-08	Soil	10/15/16 11:45	10/15/16 16:45
K-17-0.5	1603631-09	Soil	10/15/16 12:00	10/15/16 16:45
K-17-0.5-DUP	1603631-10	Soil	10/15/16 12:10	10/15/16 16:45
K-17-2.5	1603631-11	Soil	10/15/16 12:20	10/15/16 16:45
PE-4-0.5	1603631-12	Soil	10/15/16 12:40	10/15/16 16:45
PE-4-2.5	1603631-13	Soil	10/15/16 12:50	10/15/16 16:45
H-5-0.5	1603631-14	Soil	10/15/16 13:15	10/15/16 16:45
H-5-2.5	1603631-15	Soil	10/15/16 13:25	10/15/16 16:45
H-4-0.5	1603631-16	Soil	10/15/16 14:00	10/15/16 16:45
H-4-2.5	1603631-17	Soil	10/15/16 14:10	10/15/16 16:45
H-3-0.5	1603631-18	Soil	10/15/16 14:20	10/15/16 16:45
H-3-0.5 DUP	1603631-19	Soil	10/15/16 14:30	10/15/16 16:45
H-3-2.5	1603631-20	Soil	10/15/16 14:40	10/15/16 16:45
MB-4-2.5	1603631-21	Soil	10/15/16 14:45	10/15/16 16:45
MB-4-0.5	1603631-22	Soil	10/15/16 14:42	10/15/16 16:45
AA-653-1-0.5	1603631-23	Soil	10/15/16 14:43	10/15/16 16:45
AA-653-1-2.5	1603631-24	Soil	10/15/16 14:50	10/15/16 16:45
EB-4-10/15/16	1603631-25	Water	10/15/16 15:10	10/15/16 16:45
H-5-2.5 Duplicate	1603631-26	Soil	10/15/16 13:25	10/15/16 16:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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TRC
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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-11-0.5

Lab ID: 1603631-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:10	D1
Lead	15	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:10	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-11-2.5

Lab ID: 1603631-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.3	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:45	
Lead	5.1	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:45	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID H-11-0.5

Lab ID: 1603631-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:11	D1
Lead	14	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:11	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID H-11-2.5

Lab ID: 1603631-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:46	
Lead	5.6	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:46	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID G-11-0.5

Lab ID: 1603631-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:12	D1
Lead	13	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:12	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID G-11-2.5

Lab ID: 1603631-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:47	
Lead	5.7	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:47	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID PE-1-0.5

Lab ID: 1603631-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.7	5.0	3.5	5	B6J0567	10/20/2016	10/21/16 15:31	D1
Lead	8.4	5.0	0.56	5	B6J0567	10/20/2016	10/21/16 15:31	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID PE-1-2.5

Lab ID: 1603631-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:48	
Lead	6.4	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:48	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID K-17-0.5

Lab ID: 1603631-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.3	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:17	D1
Lead	9.7	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:17	D1



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID K-17-0.5-DUP

Lab ID: 1603631-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:53	
Lead	8.2	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:53	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID K-17-2.5

Lab ID: 1603631-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:50	
Lead	3.4	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:50	



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Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID PE-4-0.5

Lab ID: 1603631-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:18	D1
Lead	17	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:18	D1



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID PE-4-2.5

Lab ID: 1603631-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:51	
Lead	24	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:51	



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID H-5-0.5

Lab ID: 1603631-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:55	
Lead	3.9	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:55	



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Client Sample ID H-5-2.5

Lab ID: 1603631-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:52	
Lead	1.7	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:52	



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Client Sample ID H-4-0.5

Lab ID: 1603631-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 10:56	
Lead	8.5	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 10:56	



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Client Sample ID H-4-2.5

Lab ID: 1603631-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:53	
Lead	7.3	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:53	



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Client Sample ID H-3-0.5

Lab ID: 1603631-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.5	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:19	D1
Lead	17	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:19	D1



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Client Sample ID H-3-0.5 DUP

Lab ID: 1603631-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	2.0	1.4	2	B6J0567	10/20/2016	10/21/16 13:20	D1
Lead	14	2.0	0.22	2	B6J0567	10/20/2016	10/21/16 13:20	D1



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Client Sample ID H-3-2.5

Lab ID: 1603631-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:54	
Lead	4.7	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:54	



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Client Sample ID MB-4-2.5

Lab ID: 1603631-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6K0039	11/02/2016	11/03/16 11:58	
Lead	18	1.0	0.11	1	B6K0039	11/02/2016	11/03/16 11:58	



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Client Sample ID MB-4-0.5

Lab ID: 1603631-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.1	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 11:02	
Lead	18	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 11:02	



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Client Sample ID AA-653-1-0.5

Lab ID: 1603631-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0567	10/20/2016	10/21/16 11:03	
Lead	21	1.0	0.11	1	B6J0567	10/20/2016	10/21/16 11:03	



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Client Sample ID AA-653-1-2.5

Lab ID: 1603631-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.0	5.0	3.5	5	B6K0039	11/02/2016	11/03/16 16:10	D5
Lead	12	5.0	0.56	5	B6K0039	11/02/2016	11/03/16 16:10	D5



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Client Sample ID EB-4-10/15/16

Lab ID: 1603631-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:35	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:25	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:25	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:25	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:25	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:25	
Surrogate: Decachlorobiphenyl	47.7 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:25	
Surrogate: Tetrachloro-m-xylene	71.3 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:25	



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Client Sample ID EB-4-10/15/16

Lab ID: 1603631-25

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:19	
Surrogate: Decachlorobiphenyl	48.3 %		7 - 127		B6J0485	10/17/2016	10/17/16 16:19	
Surrogate: Tetrachloro-m-xylene	83.5 %		14 - 122		B6J0485	10/17/2016	10/17/16 16:19	



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Client Sample ID H-5-2.5 Duplicate
Lab ID: 1603631-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:43	
Lead	18	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:43	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0567 - EPA 3050B_S

Blank (B6J0567-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0567-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	46.9369	1.0	50.0000		93.9	80 - 120			
Lead	47.4370	1.0	50.0000		94.9	80 - 120			

Duplicate (B6J0567-DUP1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	10		ND	NR			20	
Lead	30.6479	10		23.1921	NR		27.7	20	R

Matrix Spike (B6J0567-MS1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	121.299	5.0	125.000	3.69901	94.1	59 - 103			
Lead	155.509	5.0	125.000	23.1921	106	34 - 129			

Matrix Spike Dup (B6J0567-MSD1)

Source: 1603543-44

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	117.649	5.0	125.000	3.69901	91.2	59 - 103	3.06	20	
Lead	148.279	5.0	125.000	23.1921	100	34 - 129	4.76	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0039 - EPA 3050B_S

Blank (B6K0039-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0039-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	45.4850	1.0	50.0000		91.0	80 - 120			
Lead	47.6611	1.0	50.0000		95.3	80 - 120			

Duplicate (B6K0039-DUP1)

Source: 1603545-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	13.2568	1.0		12.2373	NR		8.00	20	
Lead	55.4264	1.0		53.4235	NR		3.68	20	

Matrix Spike (B6K0039-MS1)

Source: 1603545-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	116.131	1.0	125.000	12.2373	83.1	59 - 103			
Lead	154.624	1.0	125.000	53.4235	81.0	34 - 129			

Matrix Spike Dup (B6K0039-MSD1)

Source: 1603545-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	108.020	1.0	125.000	12.2373	76.6	59 - 103	7.24	20	
Lead	149.264	1.0	125.000	53.4235	76.7	34 - 129	3.53	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99			
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99			
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93			
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93			
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98			
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98			
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141			
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141			
Surrogate: Decachlorobiphenyl	0.3766		0.500000		75.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3709		0.500000		74.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4193		0.500000		83.9	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4522		0.500000		90.4	14 - 122			

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20	
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20	
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20	
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20	
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20	
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20	
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20	
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20	
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20	
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20	
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20	
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20	
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20	
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20	
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20	
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20	
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20	
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20	
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20	
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20	
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20	
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20	
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20	
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20	
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20	
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20	
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20	



Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3734</i>		<i>0.500000</i>		<i>74.7</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3662</i>		<i>0.500000</i>		<i>73.2</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4183</i>		<i>0.500000</i>		<i>83.7</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4519</i>		<i>0.500000</i>		<i>90.4</i>	<i>14 - 122</i>			



Certificate of Analysis

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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

Surrogate: Decachlorobiphenyl

0.3834

0.500000

76.7

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4914

0.500000

98.3

14 - 122

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

Surrogate: Decachlorobiphenyl

0.3873

0.500000

77.5

7 - 127

Surrogate: Tetrachloro-m-xylene

0.5015

0.500000

100

14 - 122

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

Surrogate: Decachlorobiphenyl

0.3735

0.500000

74.7

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4908

0.500000

98.2

14 - 122



Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VOL)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C
<input type="checkbox"/> Other:		4. SEALED	<input type="checkbox"/> 8. OTHER

Company: **TRC Solutions Inc** Address: **9685 Research Drive** Tel: **949-341-7167**
 City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**
 Attn: **John Nordenstam** Email: **john@trcsolutions.com** Company: **trcsolutions.com**
 Company: **TRC Solutions Inc** Address: **9685 Research Drive** State: **CA** Zip: **92618**
 City: **Irvine** State: **CA** Zip: **92618**

Project Name:		Quote No:	Special Instructions/Comments:	
LAUSD Roosevelt HS		E16I131		
Project No:		2056420000/TA02	PO #:	
Sample:		W- Warren Howe	100816	
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1603631-01	I-11-0.5		10/15/16 0900
2	-02	I-11-2.5		10/15/16 0910
3	-03	H-11-0.5		10-15-16 0930
4	-04	H-11-2.5		10-15-16 0940
5	-05	G-11-0.5		10-15-16 1100
6	-06	G-11-2.5		10-15-16 1115
7	-07	PE-1-0.5		10/15/16 1130
8	-08	PE-1-2.5		10/15/16 1145
9	-09	K-17-0.5		10/15/16 1200
10	-10	K-17-0.5-DUP		10/15/16 1210

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Submitter Print Name: _____

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/15/16** Time: **1630**
 Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/15/16** Time: **1645**
 Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/15/16** Time: **1645**

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/15/16** Time: **1630**
 Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/15/16** Time: **1645**
 Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/15/16** Time: **1645**

CHAIN OF CUSTODY RECORD
Page 2 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
Client	Condition	Y	N	Y	N
<input type="checkbox"/> ATL	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (N/A)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Company: **TRC Solutions Inc** Address: **9685 Research Drive** Tel: **949-341-7167**
City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**
Attn: **John Nordenstam** Email: **nordenstam@trcsolutions.com**
Company: **TRC Solutions Inc**
Address: **9685 Research Drive**
City: **Irvine** State: **CA** Zip: **92618**

Project Name: **LAUSD Roosevelt HS** Quote No: **E16I131**
Project No.: **265642, 000/002** PO #: **100816**
Sampler: **Warron Howe**

ITEM	Lab No.	Sample ID / Location	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	TAT	Container	QA/QC
1	1603631-11	K-17-2.5	10.15.16	1220	As EPA 6010B	X	5	1	4 Hold
2	1603631-12	PE-4-0.5	10.15.16	1240	XX	X	5	1	4
3	1603631-13	PE-4-2.5	10.15.16	1250	XX	X	5	1	4 Hold
4	1603631-14	H5-0.5	10.15.16	1315	XX	X	5	1	4
5	1603631-15	H5-2.5	10.15.16	1325	XX	X	5	1	4 Hold
6	1603631-16	H-4-0.5	10.15.16	1400	XX	X	5	1	4
7	1603631-17	H-4-2.5	10.15.16	1410	XX	X	5	1	4 Hold
8	1603631-18	H-3-0.5	10.15.16	1420	XX	X	5	1	4
9	1603631-19	H-3-0.5 DUP	10.15.16	1430	XX	X	5	1	4
10	1603631-20	H-3-2.5	10.15.16	1440	XX	X	5	1	4 Hold

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: (Signature and Printed Name) **Warron Howe** Date: **10/15/16** Time: **1630**
Relinquished by: (Signature and Printed Name) **John Nordenstam** Date: **10/15/16** Time: **1645**
Relinquished by: (Signature and Printed Name) **Warron Howe** Date: **10/15/16** Time: **1645**

CHAIN OF CUSTODY RECORD

Page 3 of 3

For Laboratory Use Only
ATLCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
Client	Condition	Y	N
<input type="checkbox"/> ATL	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (N2O4)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

5. # OF SAMPLES MATCH COC ☐
6. PRESERVED ☐
7. COOLER TEMP. deg C:
8. SEALER ☐

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc	Address: 9685 Research Drive	Tel: 949-341-7167
Attn: John Nordenstam	City: Irvine	State: CA Zip: 92618
Company: jnordenstam@trcsolutions.com	Email:	
Address: TRC Solutions Inc	SEND INVOICE TO: <input checked="" type="checkbox"/> Same as SEND REPORT TO	
Address: 9685 Research Drive	Email:	
City: Irvine	State: CA	Zip: 92618

Project Name: LAUSD Pasadena HS (F16113)		Quote No: 265642000/TA02	PO #: 100816
ITEM	Lab No.	Sample ID / Location	Sample Description
1	1603621-21	MB-4-2.5	10.15.16 1445
2	1603621-22	MB-4-0.5	10.15.16 1442
3	1603621-23	AA-653-1-0.5	10.15.16 1443
4	1603621-24	AA-653-1-2.5	10.15.16 1450
5	1603621-25	EB-4-10/15/16	10.15.16 1510
6			
7			
8			
9			
10			

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	5 15 1 4 Hold	<input type="checkbox"/> Routine
8015 (GRO)	SOLIDS / WIPE / FILTER	5 15 1 4	<input type="checkbox"/> Caltrans
8015 (DRO)	WATER - DRINKING / GROUND	5 15 1 4	<input type="checkbox"/> Legal
8270 (Semi-volatiles)	WATER - STORM / WASTE	5 15 1 4	<input type="checkbox"/> RWQCB
8081 (Organochlorine Pesticides)	AQUEOUS / LAYERED - OIL	5 15 1 4	<input type="checkbox"/> Level IV
8082 (PCBs)			
6010 / 7000 (Title 22 Metals)			
TO-15			
AS EPA 6010B			
Pb EPA 6010B			
EPA 8082			

REMARKS: Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-AC, 5-Zn (II), 6-NaOH, 7-Na2S2O3

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: (Signature and Printed Name) Warren Howey Date: 10/15/16 Time: 1630

Relinquished by: (Signature and Printed Name) Ross Sanger Date: 10/15/16 Time: 1430

Relinquished by: (Signature and Printed Name) Ross Sanger Date: 10/15/16 Time: 1430

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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October 26, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603632

Client Reference : LAUSD ROOSEVELT HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 15, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", followed by the letters "Ar" in a smaller, cursive script.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 10/26/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I-12-0.5	1603632-01	Soil	10/15/16 8:00	10/15/16 16:45
H-12-0.5	1603632-03	Soil	10/15/16 8:30	10/15/16 16:45
G-12-0.5	1603632-05	Soil	10/15/16 10:45	10/15/16 16:45
F-12-0.5	1603632-07	Soil	10/15/16 10:00	10/15/16 16:45
E-12-0.5	1603632-09	Soil	10/15/16 11:00	10/15/16 16:45
E-12-0.5-DUP	1603632-10	Soil	10/15/16 11:01	10/15/16 16:45
D-12-0.5	1603632-12	Soil	10/15/16 10:35	10/15/16 16:45
C-12-0.5	1603632-14	Soil	10/15/16 10:30	10/15/16 16:45
B-12-0.5	1603632-16	Soil	10/15/16 8:50	10/15/16 16:45
PE-2-0.5	1603632-18	Soil	10/15/16 12:10	10/15/16 16:45
PE-3-0.5	1603632-20	Soil	10/15/16 12:50	10/15/16 16:45
PE-3-0.5-DUP	1603632-21	Soil	10/15/16 12:51	10/15/16 16:45
H-1-0.5	1603632-23	Soil	10/15/16 13:00	10/15/16 16:45
H-2-0.5	1603632-25	Soil	10/15/16 13:40	10/15/16 16:45
MB-1-0.5	1603632-27	Soil	10/15/16 14:30	10/15/16 16:45
MB-2-0.5	1603632-29	Soil	10/15/16 14:50	10/15/16 16:45
MB-5-0.5	1603632-31	Soil	10/15/16 14:40	10/15/16 16:45
MB-5-0.5-DUP	1603632-32	Soil	10/15/16 14:41	10/15/16 16:45
EB-5-10/15/16	1603632-34	Water	10/15/16 15:20	10/15/16 16:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID I-12-0.5

Lab ID: 1603632-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:07	J
Lead	2.6	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:07	



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Reported : 10/26/2016

Client Sample ID H-12-0.5

Lab ID: 1603632-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:23	D1
Lead	4.7	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:23	D1



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Report To : John Nordenstam

Reported : 10/26/2016

Client Sample ID G-12-0.5

Lab ID: 1603632-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0568	10/20/2016	10/21/16 15:32	D1
Lead	23	5.0	0.56	5	B6J0568	10/20/2016	10/21/16 15:32	D1



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID F-12-0.5

Lab ID: 1603632-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:25	D1
Lead	15	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:25	D1



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID E-12-0.5

Lab ID: 1603632-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:26	D1
Lead	5.7	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:26	D1



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Report To : John Nordenstam

Reported : 10/26/2016

Client Sample ID E-12-0.5-DUP

Lab ID: 1603632-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:18	
Lead	37	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:18	



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID D-12-0.5

Lab ID: 1603632-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:27	D1
Lead	21	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:27	D1



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID C-12-0.5

Lab ID: 1603632-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:31	D1
Lead	120	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:31	D1



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Reported : 10/26/2016

Client Sample ID B-12-0.5

Lab ID: 1603632-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:21	
Lead	3.6	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:21	



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Client Sample ID PE-2-0.5

Lab ID: 1603632-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:32	D1
Lead	13	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:32	D1



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Reported : 10/26/2016

Client Sample ID PE-3-0.5

Lab ID: 1603632-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:33	D1
Lead	55	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:33	D1



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Reported : 10/26/2016

Client Sample ID PE-3-0.5-DUP

Lab ID: 1603632-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:27	
Lead	63	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:27	



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Reported : 10/26/2016

Client Sample ID H-1-0.5

Lab ID: 1603632-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:34	D1
Lead	8.4	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:34	D1



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Reported : 10/26/2016

Client Sample ID H-2-0.5

Lab ID: 1603632-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.3	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:35	D1
Lead	8.9	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:35	D1



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Reported : 10/26/2016

Client Sample ID MB-1-0.5

Lab ID: 1603632-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.9	5.0	3.5	5	B6J0568	10/20/2016	10/21/16 15:33	
Lead	24	5.0	0.56	5	B6J0568	10/20/2016	10/21/16 15:33	



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Reported : 10/26/2016

Client Sample ID MB-2-0.5

Lab ID: 1603632-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.1	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:38	D1
Lead	8.1	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:38	D1



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID MB-5-0.5

Lab ID: 1603632-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:33	
Lead	24	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:33	



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID MB-5-0.5-DUP

Lab ID: 1603632-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:34	
Lead	11	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:34	



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Report To : John Nordenstam

Reported : 10/26/2016

Client Sample ID EB-5-10/15/16

Lab ID: 1603632-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:49	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:49	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:36	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:36	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:36	
Surrogate: Decachlorobiphenyl	23.5 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:36	
Surrogate: Tetrachloro-m-xylene	59.7 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:36	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 10/26/2016

Client Sample ID EB-5-10/15/16

Lab ID: 1603632-34

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
<i>Surrogate: Decachlorobiphenyl</i>	26.1 %		7 - 127		B6J0485	10/17/2016	10/17/16 16:37	
<i>Surrogate: Tetrachloro-m-xylene</i>	68.0 %		14 - 122		B6J0485	10/17/2016	10/17/16 16:37	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
Batch B6J0568 - EPA 3050B_S									
Blank (B6J0568-BLK1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0568-BS1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	43.7021	1.0	50.0000		87.4	80 - 120			
Lead	44.1417	1.0	50.0000		88.3	80 - 120			
Duplicate (B6J0568-DUP1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	ND	2.0		ND	NR			20	
Lead	2.71624	2.0		2.64430	NR		2.68	20	
Matrix Spike (B6J0568-MS1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	106.772	1.0	125.000	0.999000	84.6	59 - 103			
Lead	105.815	1.0	125.000	2.64430	82.5	34 - 129			
Matrix Spike Dup (B6J0568-MSD1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	98.4850	1.0	125.000	0.999000	78.0	59 - 103	8.07	20	
Lead	98.4198	1.0	125.000	2.64430	76.6	34 - 129	7.24	20	



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Reported : 10/26/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Report To : John Nordenstam
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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99			
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99			
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93			
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93			
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98			
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98			
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141			
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141			
Surrogate: Decachlorobiphenyl	0.3766		0.500000		75.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3709		0.500000		74.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4193		0.500000		83.9	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4522		0.500000		90.4	14 - 122			

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20	
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20	
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20	
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20	
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20	
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20	
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20	
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20	
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20	
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20	
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20	
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20	
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20	
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20	
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20	
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20	
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20	
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20	
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20	
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20	
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20	
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20	
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20	
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20	
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20	
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20	
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
Surrogate: Decachlorobiphenyl	0.3734		0.500000		74.7	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3662		0.500000		73.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4183		0.500000		83.7	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4519		0.500000		90.4	14 - 122			



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Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3834 0.500000 76.7 7 - 127
0.4914 0.500000 98.3 14 - 122

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3873 0.500000 77.5 7 - 127
0.5015 0.500000 100 14 - 122

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3735 0.500000 74.7 7 - 127
0.4908 0.500000 98.2 14 - 122



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 10/26/2016

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 4

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VDA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:	<input type="checkbox"/> GSO	3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
	<input type="checkbox"/> GSO	4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA		Zip: 92618		Tel: 949-341-7467		Fax: 949-722-7311	
Attn: JOHN NORDENSTAM		Email: jnordenstam@trcsolutions.com		Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA		Zip: 92618	
City: IRVINE		State: CA		Zip: 92618		City: IRVINE		State: CA		Zip: 92618		Tel: 949-341-7467	

Project Name: LAUSD ROUSEWELT HS		Quote No: E16131		Sample ID / Location		Sample Description		Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
ITEM	Lab No.	Sample ID	Location	Sample Description	Date	Time	8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	6010 / 7000 (Title 22 Metals)	TO-15	AS EPA 6010B	AS EPA 6010B
1	1603632-01	I-12-0.5			10/15/16	0800								X	4
2	-02	I-12-2.5			10/15/16	0810								X	4
3	-03	H-12-0.5			10/15/16	0830								X	4
4	-04	H-12-2.5			10/15/16	0840								X	4
5	-05	B-12-0.5			10/15/16	1045								X	4
6	-06	B-12-2.5			10/15/16	1055								X	4
7	-07	F-12-0.5			10/15/16	1000								X	4
8	-08	F-12-2.5			10/15/16	1010								X	4
9	-09	E-12-0.5			10/15/16	1100								X	4
10	-10	E-12-0.5-DUP			10/15/16	1101								X	4

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature		Date: 10/15/16		Time: 1540	
Submitter Print Name		Signature		Date: 10/15/16		Time: 1645	

CHAIN OF CUSTODY RECORD

Page 3 of 4

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Method of Transport		Sample Conditions Upon Receipt	
Y	N	Y	N
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Instruction: Complete all shaded areas.

Company:	TRC SOLUTIONS, INC		Address:	9685 RESEARCH DRIVE		Tel:	949-341-7467	
Attn:	JOHN NORDENSTAM		City:	IRVINE		State:	CA	
Company:	TRC SOLUTIONS, INC		Zip:	92618		Fax:	949-727-7311	
Address:	9685 RESEARCH DRIVE		SEND INVOICE TO: [X] Same as SEND REPORT TO					
City:	IRVINE		State:	CA		City:	Irvine	
State:	CA		Zip:	92618		Attn:	Email:	
Project Name:	LAUSD ROOSEVELT HS		Quote No.:	E161131		Company:	Address:	
Project No.:	2656		PO #:	100816		City:	State:	
Sampler:	Giuseppe Cefalu		Special Instructions/Comments:					

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis										Encircle Sample Matrix				Container	QA/QC
						8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-Volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	6010 / 7000 (Title 22 Metals)	TO-15	As EPA 6010	As EPA 6010	As EPA 6010	As EPA 6010	As EPA 6010	As EPA 6010		
1	1603632-21	PE-3-0.5-Dup		10/15/16	1251																
2	1603632-22	PE-3-2.5		10/15/16	1330																
3	1603632-23	H-1-0.5		10/15/16	1300																
4	1603632-24	H-1-2.5		10/15/16	1310																
5	1603632-25	H-2-0.5		10/15/16	1340																
6	1603632-26	H-2-2.5		10/15/16	1350																
7	1603632-27	M3-1-0.5		10/15/16	1430																
8	1603632-28	M3-1-2.5		10/15/16	1440																
9	1603632-29	M3-2-0.5		10/15/16	1450																
10	1603632-30	M3-2-2.5		10/15/16	1500																

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Submitter Print Name: _____

Relinquished by: (Signature and Printed Name) _____ Date: 10/15/16 Time: 1540

Relinquished by: (Signature and Printed Name) _____ Date: 10/15/16 Time: 1645

Relinquished by: (Signature and Printed Name) _____ Date: 10/15/16 Time: 1645

Relinquished by: (Signature and Printed Name) _____ Date: 10/15/16 Time: 1645

CHAIN OF CUSTODY RECORD

Page 4 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver. 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (V/OA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg. C:
<input type="checkbox"/> 4. SEALED			

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-321-7467	
Attn: JOHN NORDENSTAM		City: IRVINE		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		State: CA		Zip: 92618	
Address: 9685 RESEARCH DRIVE		Email: jnordenstam@trcsolutions.com		SEND INVOICE TO: Same as SEND REPORT TO	
City: IRVINE		State: CA		Zip: 92618	

Project Name: LAUSD ROOSEVELT HS		Quote No: E167131		Special Instructions/Comments:	
Project No: 265642-0000/TA02		PO #: 100816			
Sampler: Giuseppe Catala					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603632-31	MB-5-0.5		10/15/16	1440
2	-32	MB-5-0.5-DUP		10/15/16	1441
3	-33	MB-5-2.5		10/15/16	1450
4	-34	EB-5-10/15/16		10/15/16	1520
5					
6					
7					
8					
9					
10					

<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.</p> <p>3. The following turnaround time conditions apply:</p> <p>TA# 1 = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)</p> <p>TA# 2 = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)</p> <p>TA# 3 = 3: 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)</p> <p>TA# 4 = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)</p> <p>TA# 5 = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)</p> <p>4. Weekend, holiday, after-hours work - ask for quote.</p> <p>5. Additional testing fees - Projects requiring shorter TATs will incur a surcharge.</p> <p>6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>7. Electronic records maintained for five (5) years from report date.</p> <p>8. Hard copy reports will be disposed of after 45 calendar days from report date.</p> <p>9. Storage and Report Fees:</p> <p>- Liquid & solid samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforms? ed report; \$25 per processed EDD.</p> <p>10. CRP/PRP: Add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>	
<p>Relinquished by: (Signature and Printed Name)</p> <p>Relinquished by: (Signature and Printed Name)</p> <p>Relinquished by: (Signature and Printed Name)</p>		<p>Relinquished by: (Signature and Printed Name)</p> <p>Relinquished by: (Signature and Printed Name)</p> <p>Relinquished by: (Signature and Printed Name)</p>	
<p>Date: 10/15/16</p> <p>Time: 1540</p>		<p>Date: 10/15/16</p> <p>Time: 1540</p>	



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603632
Client Reference : LAUSD ROOSEVELT HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 15, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I-12-0.5	1603632-01	Soil	10/15/16 8:00	10/15/16 16:45
I-12-2.5	1603632-02	Soil	10/15/16 8:10	10/15/16 16:45
H-12-0.5	1603632-03	Soil	10/15/16 8:30	10/15/16 16:45
H-12-2.5	1603632-04	Soil	10/15/16 8:40	10/15/16 16:45
G-12-0.5	1603632-05	Soil	10/15/16 10:45	10/15/16 16:45
G-12-2.5	1603632-06	Soil	10/15/16 10:55	10/15/16 16:45
F-12-0.5	1603632-07	Soil	10/15/16 10:00	10/15/16 16:45
F-12-2.5	1603632-08	Soil	10/15/16 10:10	10/15/16 16:45
E-12-0.5	1603632-09	Soil	10/15/16 11:00	10/15/16 16:45
E-12-0.5-DUP	1603632-10	Soil	10/15/16 11:01	10/15/16 16:45
E-12-2.5	1603632-11	Soil	10/15/16 11:16	10/15/16 16:45
D-12-0.5	1603632-12	Soil	10/15/16 10:35	10/15/16 16:45
D-12-2.5	1603632-13	Soil	10/15/16 10:45	10/15/16 16:45
C-12-0.5	1603632-14	Soil	10/15/16 10:30	10/15/16 16:45
C-12-2.5	1603632-15	Soil	10/15/16 10:40	10/15/16 16:45
B-12-0.5	1603632-16	Soil	10/15/16 8:50	10/15/16 16:45
B-12-2.5	1603632-17	Soil	10/15/16 9:00	10/15/16 16:45
PE-2-0.5	1603632-18	Soil	10/15/16 12:10	10/15/16 16:45
PE-2-2.5	1603632-19	Soil	10/15/16 12:20	10/15/16 16:45
PE-3-0.5	1603632-20	Soil	10/15/16 12:50	10/15/16 16:45
PE-3-0.5-DUP	1603632-21	Soil	10/15/16 12:51	10/15/16 16:45
PE-3-2.5	1603632-22	Soil	10/15/16 13:30	10/15/16 16:45
H-1-0.5	1603632-23	Soil	10/15/16 13:00	10/15/16 16:45
H-1-2.5	1603632-24	Soil	10/15/16 13:10	10/15/16 16:45
H-2-0.5	1603632-25	Soil	10/15/16 13:40	10/15/16 16:45
H-2-2.5	1603632-26	Soil	10/15/16 13:50	10/15/16 16:45
MB-1-0.5	1603632-27	Soil	10/15/16 14:30	10/15/16 16:45
MB-1-2.5	1603632-28	Soil	10/15/16 14:40	10/15/16 16:45
MB-2-0.5	1603632-29	Soil	10/15/16 14:50	10/15/16 16:45
MB-2-2.5	1603632-30	Soil	10/15/16 15:00	10/15/16 16:45
MB-5-0.5	1603632-31	Soil	10/15/16 14:40	10/15/16 16:45
MB-5-0.5-DUP	1603632-32	Soil	10/15/16 14:41	10/15/16 16:45
MB-5-2.5	1603632-33	Soil	10/15/16 14:50	10/15/16 16:45
EB-5-10/15/16	1603632-34	Water	10/15/16 15:20	10/15/16 16:45
D-12-2.5 Duplicate	1603632-35	Soil	10/15/16 10:45	10/15/16 16:45
MB-2-2.5 Duplicate	1603632-36	Soil	10/15/16 15:00	10/15/16 16:45



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 11/08/2016

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-12-0.5

Lab ID: 1603632-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:07	J
Lead	2.6	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:07	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID I-12-2.5

Lab ID: 1603632-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.77	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:02	J
Lead	2.7	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:02	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID H-12-0.5

Lab ID: 1603632-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:23	D1
Lead	4.7	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:23	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID H-12-2.5

Lab ID: 1603632-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:07	J
Lead	3.4	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:07	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID G-12-0.5

Lab ID: 1603632-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0568	10/20/2016	10/21/16 15:32	D1
Lead	23	5.0	0.56	5	B6J0568	10/20/2016	10/21/16 15:32	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID G-12-2.5

Lab ID: 1603632-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:08	
Lead	4.3	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:08	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-12-0.5

Lab ID: 1603632-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:25	D1
Lead	15	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:25	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-12-2.5

Lab ID: 1603632-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:49	
Lead	5.5	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:49	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID E-12-0.5

Lab ID: 1603632-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:26	D1
Lead	5.7	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:26	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID E-12-0.5-DUP

Lab ID: 1603632-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:18	
Lead	37	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:18	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID E-12-2.5

Lab ID: 1603632-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.94	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:52	J
Lead	22	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:52	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID D-12-0.5

Lab ID: 1603632-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:27	D1
Lead	21	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:27	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID D-12-2.5

Lab ID: 1603632-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:53	
Lead	38	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:53	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID C-12-0.5

Lab ID: 1603632-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:31	D1
Lead	120	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:31	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.3	1.0	0.057	20	B6K0133	11/03/2016	11/03/16 15:29	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID C-12-2.5

Lab ID: 1603632-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:54	
Lead	7.2	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:54	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID B-12-0.5

Lab ID: 1603632-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:21	
Lead	3.6	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:21	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
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Reported : 11/08/2016

Client Sample ID B-12-2.5

Lab ID: 1603632-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:55	
Lead	5.1	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:55	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID PE-2-0.5

Lab ID: 1603632-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:32	D1
Lead	13	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:32	D1



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Client Sample ID PE-2-2.5

Lab ID: 1603632-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 12:59	
Lead	44	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 12:59	



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Client Sample ID PE-3-0.5

Lab ID: 1603632-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:33	D1
Lead	55	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:33	D1



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Client Sample ID PE-3-0.5-DUP

Lab ID: 1603632-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:27	
Lead	63	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:27	



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Client Sample ID PE-3-2.5

Lab ID: 1603632-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:00	
Lead	92	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:00	



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Client Sample ID H-1-0.5

Lab ID: 1603632-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:34	D1
Lead	8.4	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:34	D1



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Client Sample ID H-1-2.5

Lab ID: 1603632-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.0	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:01	
Lead	6.7	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:01	



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Client Sample ID H-2-0.5

Lab ID: 1603632-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.3	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:35	D1
Lead	8.9	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:35	D1



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Client Sample ID H-2-2.5

Lab ID: 1603632-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.6	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:05	
Lead	230	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:05	



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Client Sample ID MB-1-0.5

Lab ID: 1603632-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.9	5.0	3.5	5	B6J0568	10/20/2016	10/21/16 15:33	
Lead	24	5.0	0.56	5	B6J0568	10/20/2016	10/21/16 15:33	



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Client Sample ID MB-1-2.5

Lab ID: 1603632-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.96	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:06	J
Lead	3.0	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:06	



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Client Sample ID MB-2-0.5

Lab ID: 1603632-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.1	2.0	1.4	2	B6J0568	10/20/2016	10/21/16 13:38	D1
Lead	8.1	2.0	0.22	2	B6J0568	10/20/2016	10/21/16 13:38	D1



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Client Sample ID MB-2-2.5

Lab ID: 1603632-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:07	
Lead	4.9	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:07	



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Client Sample ID MB-5-0.5

Lab ID: 1603632-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:33	
Lead	24	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:33	



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Client Sample ID MB-5-0.5-DUP

Lab ID: 1603632-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:34	
Lead	11	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:34	



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Client Sample ID MB-5-2.5

Lab ID: 1603632-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:08	
Lead	5.2	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:08	



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Client Sample ID EB-5-10/15/16

Lab ID: 1603632-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:49	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:49	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:36	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:36	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:36	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:36	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:36	
Surrogate: Decachlorobiphenyl	23.5 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:36	
Surrogate: Tetrachloro-m-xylene	59.7 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:36	



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Client Sample ID EB-5-10/15/16

Lab ID: 1603632-34

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:37	
Surrogate: Decachlorobiphenyl	26.1 %		7 - 127		B6J0485	10/17/2016	10/17/16 16:37	
Surrogate: Tetrachloro-m-xylene	68.0 %		14 - 122		B6J0485	10/17/2016	10/17/16 16:37	



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Client Sample ID D-12-2.5 Duplicate
Lab ID: 1603632-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:53	
Lead	16	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:53	



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Client Sample ID MB-2-2.5 Duplicate

Lab ID: 1603632-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.6	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 13:57	
Lead	5.0	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 13:57	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0568 - EPA 3050B_S

Blank (B6J0568-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0568-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	43.7021	1.0	50.0000		87.4	80 - 120			
Lead	44.1417	1.0	50.0000		88.3	80 - 120			

Duplicate (B6J0568-DUP1)

Source: 1603632-01

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	2.0		ND	NR			20	
Lead	2.71624	2.0		2.64430	NR		2.68	20	

Matrix Spike (B6J0568-MS1)

Source: 1603632-01

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	106.772	1.0	125.000	0.999000	84.6	59 - 103			
Lead	105.815	1.0	125.000	2.64430	82.5	34 - 129			

Matrix Spike Dup (B6J0568-MSD1)

Source: 1603632-01

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	98.4850	1.0	125.000	0.999000	78.0	59 - 103	8.07	20	
Lead	98.4198	1.0	125.000	2.64430	76.6	34 - 129	7.24	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0040 - EPA 3050B_S

Blank (B6K0040-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0040-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	45.5583	1.0	50.0000		91.1	80 - 120			
Lead	47.8163	1.0	50.0000		95.6	80 - 120			

Duplicate (B6K0040-DUP1)

Source: 1603632-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	5.0		ND	NR			20	D5
Lead	2.89578	5.0		2.66079	NR		8.46	20	D5, J

Matrix Spike (B6K0040-MS1)

Source: 1603632-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	88.7646	1.0	125.000	0.772220	70.4	59 - 103			
Lead	90.6486	1.0	125.000	2.66079	70.4	34 - 129			

Matrix Spike Dup (B6K0040-MSD1)

Source: 1603632-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	110.818	1.0	125.000	0.772220	88.0	59 - 103	22.1	20	R
Lead	112.997	1.0	125.000	2.66079	88.3	34 - 129	21.9	20	R



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0133 - STLC_S Extraction

Blank (B6K0133-BLK1)

Prepared: 11/3/2016 Analyzed: 11/3/2016

Lead ND 1.0 NR

LCS (B6K0133-BS1)

Prepared: 11/3/2016 Analyzed: 11/3/2016

Lead 2.20689 2.00000 110 80 - 120

Duplicate (B6K0133-DUP1)

Source: 1603800-17

Prepared: 11/3/2016 Analyzed: 11/3/2016

Lead 1.01567 1.0 1.13545 NR 11.1 20

Matrix Spike (B6K0133-MS1)

Source: 1603800-17

Prepared: 11/3/2016 Analyzed: 11/3/2016

Lead 3.47770 2.50000 1.13545 93.7 44 - 130

Matrix Spike Dup (B6K0133-MSD1)

Source: 1603800-17

Prepared: 11/3/2016 Analyzed: 11/3/2016

Lead 3.50114 2.50000 1.13545 94.6 44 - 130 0.672 20



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



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Report To : John Nordenstam
Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99			
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99			
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93			
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93			
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98			
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98			
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141			
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141			
Surrogate: Decachlorobiphenyl	0.3766		0.500000		75.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3709		0.500000		74.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4193		0.500000		83.9	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4522		0.500000		90.4	14 - 122			

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20	
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20	
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20	
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20	
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20	
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20	
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20	
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20	
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20	
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20	
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20	
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20	
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20	
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20	
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20	
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20	
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20	
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20	
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20	
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20	
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20	
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20	
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20	
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20	
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20	
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20	
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20	



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
Surrogate: Decachlorobiphenyl	0.3734		0.500000		74.7	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3662		0.500000		73.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4183		0.500000		83.7	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4519		0.500000		90.4	14 - 122			



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Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3834 0.500000 76.7 7 - 127
0.4914 0.500000 98.3 14 - 122

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3873 0.500000 77.5 7 - 127
0.5015 0.500000 100 14 - 122

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3735 0.500000 74.7 7 - 127
0.4908 0.500000 98.2 14 - 122



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Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY
LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 2 of 4

Method of Transport		For Laboratory Use Only						ATLCOG Ver: 20130715	
		Sample Conditions Upon Receipt						Y	N
		Condition		Y	N	Condition	Y			N
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED		<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnInrac	2. HEADSPACE (N/A)		<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT		<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP, deg C:			
<input type="checkbox"/> Other: _____		4. SEALED		<input type="checkbox"/>	<input type="checkbox"/>				

Instruction: Complete all shaded areas.

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7469	
City: IRVINE		State: CA		Zip: 92618	
Fax: 949-727-7311					
SEND REPORT TO:		SEND INVOICE TO:		<input checked="" type="checkbox"/> same as SEND REPORT TO	
Attn: JOHN NORDENSTAM jnordenstam@trcsolutions.com		Attn:		Email:	
Company: TRC SOLUTIONS, INC		Company:			
Address: 9685 RESEARCH DRIVE		Address:			
City: IRVINE		City:		State: CA	
Zip: 92618		Zip: 92618		Zip:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:		Sample ID / Location		Sample Description	
Sampler:		Date		Time	
LAUS D ROOSEVELT HS	E16I131	E-12-2.5	10/15/16	1116	
2265642-0000/TA02	PO #:	D-12-0.5	10/15/16	1035	
Griseare Cafe	100816	D-12-2.5	10/15/16	1045	
		C-12-0.5	10/15/16	1030	
		C-12-2.5	10/15/16	1040	
		B-12-0.5	10/15/16	0850	
		B-12-2.5	10/15/16	0900	
		PE-2-0.5	10/15/16	1210	
		PE-2-2.5	10/15/16	1220	
		PE-3-0.5	10/15/16	1250	

samples will be disposed of after 14 calendar days after receipt of samples.

• Electronic records maintained for five (5) years from report date.

Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees:

- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage is requested.
- Air conditioned storage of Hdd is requested: \$200/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma ed report; \$35.00 per reprocessed EDD.
- Rush TCM/PSL Composites: add 2 days to analysis TAT for extraction on procedure.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

<p>5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge</p> <p>10. Nonin TCI/951LC samples: add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>	<p>Submitter Print Name</p>	<p>Signature</p>
<p>Relinquished by: (Signature and Printed Name) <i>Dr. Stephanie C. Fisher, Bruce R. C. Fisher</i></p>	<p>Received by: (Signature and Printed Name) <i>Dr. Bruce R. C. Fisher</i></p>	<p>Date: 10/15/16</p>
<p>Relinquished by: (Signature and Printed Name) <i>Dr. Bruce R. C. Fisher</i></p>	<p>Received by: (Signature and Printed Name) <i>Dr. Bruce R. C. Fisher</i></p>	<p>Date: 10/15/16</p>
<p>Relinquished by: (Signature and Printed Name)</p>	<p>Received by: (Signature and Printed Name)</p>	<p>Date: 10/15/16</p>

CHAIN OF CUSTODY RECORD

Page 3 of 4

Instruction: Complete all shaded areas.

Customer		Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7467	
		City: IRVINE		City: IRVINE		Fax: 949-727-7311	
		State: CA		State: CA		Zip: 92618	
		Zip: 92618		Zip: 92618			
SEND REPORT TO:		SEND INVOICE TO:		SEND REPORT TO:		SEND INVOICE TO:	
Attn:		Attn:		Attn:		Attn:	
Email:		Email:		Email:		Email:	
Company:		Company:		Company:		Company:	
Address:		Address:		Address:		Address:	
City:		City:		City:		City:	
State:		State:		State:		State:	
Zip:		Zip:		Zip:		Zip:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No:		PO #:			
Sampler:					
LAUSD ROOSEVELT HS		616 I131			
2656 42-0000/TA02		100816			
Giuseppe Cefalu					
ITEM	Lab No.	Sample Description		Date	Time
1	1603632-24	PE-3-0.5-Dup	10/15/16	1251	
2	-22	PE-3-2.5	10/15/16	1330	
3	-23	H-1-0.5	10/15/16	1300	
4	-24	H-1-2.5	10/15/16	1310	
5	-25	H-2-0.5	10/15/16	1340	
6	-26	H-2-2.5	10/15/16	1350	
7	-27	MB-1-0.5	10/15/16	1430	
8	-28	MB-1-2.5	10/15/16	1440	
9	-29	MB-2-0.5	10/15/16	1450	
10	-30	MB-2-2.5	10/15/16	1500	

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.	Date:	Time:
2. Electronic records maintained for five (5) years from report date.	<i>10/15/16</i>	<i>15:46</i>
3. The following turnaround time conditions apply: TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3 : 20% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5 : NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)	Date:	Time:
4. Weekend, holiday, after-hours work - ask for quote.	<i>10/15/16</i>	<i>16:45</i>
5. Subcontract TAT is 10-15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.	Date:	Time:
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.	<i>10/15/16</i>	<i>16:45</i>
7. Electronic records maintained for five (5) years from report date.	Date:	Time:
8. Hard copy reports will be disposed of after 45 calendar days from report date.	<i>10/15/16</i>	<i>16:45</i>
9. Storage options include: - Air samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested. - Solid samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20 /sample/week if extended storage is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20 /sample/week if extended storage is requested.	Date:	Time:
- Hard copy and regenerated reports/EDBs: \$17-50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per reprocessed EDD.	Date:	Time:
10. Rush TCP/STIC samples: add 2 days to analysis TAT for extraction on procedure.	Date:	Time:
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	Date:	Time:

CHAIN OF CUSTODY RECORD

Page 4 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver. 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (V/OA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg. C:
<input type="checkbox"/> 4. SEALED			

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-321-7467	
Attn: JOHN NORDENSTAM		City: IRVINE		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		State: CA		Zip: 92618	
Address: 9685 RESEARCH DRIVE		Email: jnordenstam@trcsolutions.com		SEND INVOICE TO: Same as SEND REPORT TO	
City: IRVINE		State: CA		Zip: 92618	

Project Name: LAUSD ROOSEVELT HS		Quote No: E167131		Special Instructions/Comments:	
Project No: 268642-0000/TA02		PO #: 100816			
Sampler: Giuseppe Catala					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603632-31	MB-5-0.5		10/15/16	1440
2	-32	MB-5-0.5-DUP		10/15/16	1441
3	-33	MB-5-2.5		10/15/16	1450
4	-34	EB-5-10/15/16		10/15/16	1520
5					
6					
7					
8					
9					
10					

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>Submitter Print Name: _____ Signature: _____</p>		<p>Relinquished by: (Signature and Printed Name) _____ Date: 10/15/16 Time: 1540</p> <p>Relinquished by: (Signature and Printed Name) _____ Date: 10/15/16 Time: 1645</p> <p>Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____</p>	
--	--	--	--

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 4:08 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Legacy High School - STLC Extraction and Analysis for Lead

Rachelle,

Please conduct STLC extraction and analysis for Lead for the following samples:

- C-12-0.5
- MB-6-0.5 DUP
- AUD-3-0.5
- AUD-4-0.5
- AUD-5-0.5
- AUD-6-0.5

Please call me with any questions.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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January 16, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603632

Client Reference : LAUSD ROOSEVELT HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 15, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 01/16/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PE-3-2.5	1603632-22	Soil	10/15/16 13:30	10/15/16 16:45
H-2-2.5	1603632-26	Soil	10/15/16 13:50	10/15/16 16:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID PE-3-2.5

Lab ID: 1603632-22

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.5	1.0	0.057	20	B7A0389	01/13/2017	01/13/17 12:32	D1



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 01/16/2017

Client Sample ID H-2-2.5

Lab ID: 1603632-26

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.3	1.0	0.057	20	B7A0389	01/13/2017	01/13/17 12:36	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 01/16/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0389 - STLC_S Extraction									
Blank (B7A0389-BLK1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
Blank (B7A0389-BLK2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
LCS (B7A0389-BS1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	1.99002		2.00000		99.5	80 - 120			
Duplicate (B7A0389-DUP1)				Source: 1604892-04 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	0.156843	1.0		0.155279	NR		1.00	20	J
Duplicate (B7A0389-DUP2)				Source: 1700063-35 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	1.45590	1.0		1.47774	NR		1.49	20	
Matrix Spike (B7A0389-MS1)				Source: 1604892-04 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.72943		2.50000	0.155279	103	44 - 130			
Matrix Spike (B7A0389-MS2)				Source: 1700063-35 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	3.97823		2.50000	1.47774	100	44 - 130			
Matrix Spike Dup (B7A0389-MSD1)				Source: 1604892-04 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.64958		2.50000	0.155279	99.8	44 - 130	2.97	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 01/16/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TTLC mg/L	TCLP mg/L	
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC			
				mg/kg	mg/L	mg/kg	mg/L			
Units:				TTL	STLC	TTL	STLC	TCLP		
Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19		---		
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16		---		
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25		---		
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26		---		
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17		---		
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17		---		
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17		---		
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16		---		
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26		---		
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34		---		
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35		---		
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11		---		
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9		---		
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13		---		
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15		---		
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0		---		
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10		---		
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13		---		
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8		---		
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12		---		
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14		---		
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12		---		
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19		---		
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13		---		
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14		---		
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7		---		
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35		---		
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74		---		
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61		---		
IM-3c-0-5	11/23/2016	1604246	0.5	66	X			---	Perform laboratory analysis for STLC for arsenic	
IM-3c-2-5	11/23/2016	1604246	2.5	22	---			---		

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLc	STLc	TTLc	STLc	TCLP	
Units:				TTLc	STLc	TTLc	STLc	TCLP	
Screening Level:				mg/kg	mg/L	mg/kg	mg/L	mg/L	
IM-3c-3.5	11/23/2016	1604246	3.5	12	5.0	80	5.0		
IM-4-0.5	10/30/2016	1603842	0.5	16	---	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	16	---	66	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	20	---	22	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	29	---	54	---	---	
IM-5d-0.5	11/23/2016	1603842	0.5	22	---	40	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	X		Perform laboratory analysis for STLc for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	X		Perform laboratory analysis for STLc for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	X		Perform laboratory analysis for STLc for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	X		Perform laboratory analysis for STLc for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	X		Perform laboratory analysis for STLc for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---		
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X		Perform laboratory analysis for STLc for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X		Perform laboratory analysis for STLc for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X		Perform laboratory analysis for STLc for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X		Perform laboratory analysis for STLc for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X		Perform laboratory analysis for STLc for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X		Perform laboratory analysis for STLc for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---		
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X		Perform laboratory analysis for STLc for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X		Perform laboratory analysis for STLc for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X		Perform laboratory analysis for STLc for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X		Perform laboratory analysis for STLc for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X		Perform laboratory analysis for STLc for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X		Perform laboratory analysis for STLc for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X		Perform laboratory analysis for STLc for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X		Perform laboratory analysis for STLc for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X		Perform laboratory analysis for STLc for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X		Perform laboratory analysis for STLc for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X		Perform laboratory analysis for STLc for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X		Perform laboratory analysis for STLc for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X		Perform laboratory analysis for STLc for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X		Perform laboratory analysis for STLc for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X		Perform laboratory analysis for STLc for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X		Perform laboratory analysis for STLc for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X		Perform laboratory analysis for STLc for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X		Perform laboratory analysis for STLc for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X		Perform laboratory analysis for STLc for lead

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LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Screening Level:				12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of proceeding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 25, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603632

Client Reference : LAUSD ROOSEVELT HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 15, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 01/25/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PE-3-2.5	1603632-22	Soil	10/15/16 13:30	10/15/16 16:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID PE-3-2.5

Lab ID: 1603632-22

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0629	01/21/2017	01/23/17 12:48	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 01/25/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0629 - EPA 3010A_S									
Blank (B7A0629-BLK1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	ND	0.050			NR				
LCS (B7A0629-BS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	0.907456	0.050	1.00000		90.7	80 - 120			
Duplicate (B7A0629-DUP1)		Source: 1604246-63		Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	0.105580	0.25		0.115129	NR		8.65	20	J
Matrix Spike (B7A0629-MS1)		Source: 1604246-63		Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	2.32413	0.25	2.50000	0.115129	88.4	78 - 109			
Matrix Spike Dup (B7A0629-MSD1)		Source: 1604246-63		Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	2.33160	0.25	2.50000	0.115129	88.7	78 - 109	0.321	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 01/25/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 18, 2017 2:21 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Rachelle – we need to conduct additional analyses for TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 44 samples to be analyzed for TCLP for lead. Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TtLC	TCLP	
			Units:							
			Screening Level:							
PE-3-2.5	10/15/2016	1603632	2.5	12	5.0	80	5.0	5.0	X	Perform laboratory analysis for TCLP for lead
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	92	5.5	5.5	X	Perform laboratory analysis for TCLP for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	5.8	5.8	X	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	4.7	4.7	---	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	16	16	X	Perform laboratory analysis for TCLP for lead
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	2.6	2.6	---	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	3.3	---	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	3.3	3.3	---	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	4.1	4.1	---	
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	6.1	0.029 J	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.3	6.3	X	Perform laboratory analysis for TCLP for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	---	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	3.6	3.6	---	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	---	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	0.095 J	---	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	3.0	3.0	---	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	6.6	6.6	X	Perform laboratory analysis for TCLP for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	ND<0.25	---	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	74	74	X	Perform laboratory analysis for TCLP for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	10	10	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	13	13	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	22	22	X	Perform laboratory analysis for TCLP for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	0.41	---	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	ND<1.0	ND<1.0	---	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	17	17	X	Perform laboratory analysis for TCLP for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	0.59	---	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	9.7	9.7	X	Perform laboratory analysis for TCLP for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	6.0	6.0	X	Perform laboratory analysis for TCLP for lead

Table 2
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456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TTL	STLC	TTL	STLC	TTL	STLC	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Units:				TTL	STLC	TTL	STLC	TTL	STLC	TCLP
Screening Level:				12	5.0	80	5.0			
AUD-6-0.25	11/21/2016	1604222	0.25							
AUD-6-0.5	10/16/2016	1603634	0.5	5.2		160	7.8		X	Perform laboratory analysis for TCLP for lead
AUD-6b-0.5	11/21/2016	1604222	0.5			670	26		1.5	
AUD-6c-0.25	11/21/2016	1604222	0.25					160	13	X
AUD-6c-0.25 DUP	11/21/2016	1604222	0.25					110	3.9	
AA1917-4-2.5	10/29/2016	1603827	2.5			82	6.2		X	Perform laboratory analysis for TCLP for lead
AA2684-2-0.5	10/29/2016	1603827	0.5	2.5		220	0.52 J			
AA2684-2-2.5	10/29/2016	1603827	2.5	18		19				
AA2684-3-2.5	10/29/2016	1603827	2.5	20		16				
AA2684-6-0.5	12/21/2016	1604849	0.5	33		25				
AA2684-6-0.5 DUP	12/21/2016	1604849	0.5	27						
AA2684-6-2.5	12/21/2016	1604849	2.5	28						
AA2684-6-3.5	12/21/2016	1604849	3.5	23						
AA2543-1-2.5	10/29/2016	1603827	2.5	34		26				
AA2543-2-0.5	10/29/2016	1603827	0.5	23		17				
AA2543-2-2.5	10/29/2016	1603827	2.5	25		17				
AA2543-2-2.5 DUP	10/29/2016	1603827	2.5	24		17				
AA2543-5-0.5	10/29/2016	1603827	0.5	25		16				
AA2543-5-2.5	10/29/2016	1603827	2.5	34		26				
AA2543-6-0.5	10/29/2016	1603827	0.5	39		34				
AA2543-6-2.5	10/29/2016	1603827	2.5	19		35				
AA2038-1-0.5	10/30/2016	1603843	0.5	23		11				
AA2038-1-2.5	10/30/2016	1603843	2.5	23		7.9				
AA2038-2-0.5	10/30/2016	1603843	0.5	14		13				
AA2038-2-2.5	10/30/2016	1603843	2.5	31		15				
AA2038-3-0.5	10/30/2016	1603843	0.5	13		8.0				
AA2038-3-2.5	10/30/2016	1603843	2.5	27		10				
AA2038-4-0.5	10/30/2016	1603843	0.5	16		13				
AA2038-4-2.5	10/30/2016	1603843	2.5	20		9.8				
AA2038-4-2.5 DUP	10/30/2016	1603843	2.5	21		12				
AA2038-7-0.5	12/21/2016	1604849	0.5	12						
AA2249-1-0.5	10/30/2016	1603843	0.5	24		14				
AA2249-1-2.5	10/30/2016	1603843	2.5	33		12				
AA2249-2-0.5	10/30/2016	1603843	0.5	22		19				
AA2249-2-2.5	10/30/2016	1603843	2.5	35		13				
AA2249-2-2.5 DUP	10/30/2016	1603843	2.5	31		14				
FS-2-0.5	10/23/2016	1603435	0.5	20		6.7				
IM-1-2.5	10/30/2016	1603842	2.5	20		35				
IM-2-2.5	10/30/2016	1603842	2.5	4.6		160	13		X	Perform laboratory analysis for TCLP for lead
IM-2b-0.5	11/23/2016	1604246	0.5	17		100	6.8		X	Perform laboratory analysis for TCLP for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLG	STLC	TTLG	STLC	TCLP	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	
Units:				Screening Level:					
IM-2b-0.5 DUP	11/23/2016	1604246	0.5	12	5.0	80	5.0	X	Perform laboratory analysis for TCLP for lead
IM-3-0.5	10/30/2016	1603842	0.5	17	---	150	6.3	---	
IM-3-0.5 DUP	10/30/2016	1603842	0.5	25	---	74	---	---	
IM-3c-0.5	10/30/2016	1603842	0.5	22	---	61	---	---	
IM-3c-2.5	11/23/2016	1604246	0.5	66	4.1	---	---	---	
IM-3c-3.5	11/23/2016	1604246	2.5	22	---	---	---	---	
IM-4-0.5	11/23/2016	1604246	3.5	16	---	---	---	---	
IM-4-2.5	10/30/2016	1603842	0.5	16	---	66	---	---	
IM-5-0.5	10/30/2016	1603842	2.5	20	---	22	---	---	
IM-5-2.5	10/30/2016	1603842	0.5	29	---	54	---	---	
IM-5d-0.5	10/30/2016	1603842	2.5	22	---	40	---	---	
IM-5d-3.5	11/23/2016	1604246	0.5	24	---	---	---	---	
IM-6-0.5	11/23/2016	1604246	3.5	14	---	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	
CRA-2-2.5	10/30/2016	1603842	0.5	3.6	---	110	10	X	Perform laboratory analysis for TCLP for lead
CRA-2b-0.5	10/30/2016	1603842	2.5	3.5	---	140	5.4	X	Perform laboratory analysis for TCLP for lead
CRA-2b-2.5	11/22/2016	1604231	0.5	---	---	89	4.5	---	
CRA-2c-3.5	11/22/2016	1604231	2.5	---	---	720	140	X	Perform laboratory analysis for TCLP for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	120	5.6	X	Perform laboratory analysis for TCLP for lead
CRI-2-0.5	10/30/2016	1603842	0.5	4.1	---	55	---	---	
CRI-2d-0.5	11/23/2016	1604246	0.5	---	---	100	6.3	X	Perform laboratory analysis for TCLP for lead
CRI-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	26	X	Perform laboratory analysis for TCLP for lead
CRI-4b-0.5	11/23/2016	1604246	0.5	---	---	350	22	X	Perform laboratory analysis for TCLP for lead
CRI-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	11	X	Perform laboratory analysis for TCLP for lead
CRI-5-0.5	10/30/2016	1603842	0.5	23	---	310	25	X	Perform laboratory analysis for TCLP for lead
CRI-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	
CRI-5b-0.25	11/23/2016	1604246	0.25	13	---	190	9.0	X	Perform laboratory analysis for TCLP for lead
CRI-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	12	X	Perform laboratory analysis for TCLP for lead
CRI-5b-0.5	11/23/2016	1604246	0.5	32	---	630	25	X	Perform laboratory analysis for TCLP for lead
CRI-5b-2.5	11/23/2016	1604246	2.5	19	---	140	14	X	Perform laboratory analysis for TCLP for lead
CRI-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	8.5	X	Perform laboratory analysis for TCLP for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	4.9	---	
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	9.7	X	Perform laboratory analysis for TCLP for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	2.2	---	
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	8.5	X	Perform laboratory analysis for TCLP for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	4.8	---	
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	7.3	X	Perform laboratory analysis for TCLP for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	11	X	Perform laboratory analysis for TCLP for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	7.4	X	Perform laboratory analysis for TCLP for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	3.6	---	

DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California										
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TCLP		
			Units:	mg/kg	mg/L	mg/kg	mg/L	mg/L		
			Screening Level:	12	5.0	80	5.0			
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	6.0	X	Perform laboratory analysis for TCLP for lead	
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	190	X	Perform laboratory analysis for TCLP for lead	
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	120	X	Perform laboratory analysis for TCLP for lead	
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	6.5	X	Perform laboratory analysis for TCLP for lead	
R15-0.25	11/22/2016	1604231	0.25	---	---	95	0.78 J	---		
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	1.9	---		
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	8.3	X	Perform laboratory analysis for TCLP for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	2.2	---		
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	17	X	Perform laboratory analysis for TCLP for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	1.3	---		
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	3.4	---		
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	1.5	---		
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:
Table summarizes arsenic and lead laboratory analytical reports for soil samples.
Samples with detectable concentrations presented in **bold font**.
Arsenic screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRR) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).
LAUSD = Los Angeles Unified School District
ID = Identification
bgs = below ground surface
EPA = Environmental Protection Agency
--- = not analyzed

mg/kg = milligrams per kilogram
mg/L = micrograms per liter
µg/L = micrograms per liter
DUP = Duplicate of preceding sample
J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
(2) = 1.1J Aroclor 1260

Notes:
 Table summarizes arsenic and lead laboratory analytical reports for soil samples.
 Samples with detectable concentrations presented in bold font.
 Arsenic screening level based on California background level.

TtLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3, Table 1 (DTSC, 2015).
 OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).

LAUSD = Los Angeles Unified School District
 ID = Identification
 bgs = below ground surface
 EPA = Environmental Protection Agency
 --- = not analyzed
 mg/kg = milligrams per kilogram
 mg/L = milligrams per liter
 µg/L = micrograms per liter
 DUP = Duplicate of preceding sample
 Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
 Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
 (2) = 11J Aroclor 1260





October 26, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603633
Client Reference : LAUSD ROOSEVELT HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 16, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", followed by the initials "ar".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 10/26/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AUD-11-0.5	1603633-01	Soil	10/16/16 7:30	10/16/16 16:50
AUD-10-0.5	1603633-03	Soil	10/16/16 8:30	10/16/16 16:50
P-7-0.5	1603633-05	Soil	10/16/16 9:40	10/16/16 16:50
P-6-0.5	1603633-07	Soil	10/16/16 9:10	10/16/16 16:50
Q-6-0.5	1603633-09	Soil	10/16/16 10:00	10/16/16 16:50
Q-6-0.5-DUP	1603633-10	Soil	10/16/16 10:02	10/16/16 16:50
Q-7-0.5	1603633-12	Soil	10/16/16 10:30	10/16/16 16:50
Q-4-0.5	1603633-14	Soil	10/16/16 10:50	10/16/16 16:50
R-4-0.5	1603633-16	Soil	10/16/16 11:30	10/16/16 16:50
S-4-0.5	1603633-18	Soil	10/16/16 12:00	10/16/16 16:50
T-4-0.5	1603633-20	Soil	10/16/16 12:40	10/16/16 16:50
T-4-0.5-DUP	1603633-21	Soil	10/16/16 12:41	10/16/16 16:50
R-7-0.5	1603633-23	Soil	10/16/16 11:20	10/16/16 16:50
S-7-0.5	1603633-25	Soil	10/16/16 11:40	10/16/16 16:50
T-7-0.5	1603633-27	Soil	10/16/16 12:20	10/16/16 16:50
HVAC-2-0.5	1603633-29	Soil	10/16/16 14:00	10/16/16 16:50
AUD-9-0.5	1603633-31	Soil	10/16/16 14:20	10/16/16 16:50
AUD-9-0.5-DUP	1603633-32	Soil	10/16/16 14:21	10/16/16 16:50
UB-3-0.5	1603633-34	Soil	10/16/16 14:15	10/16/16 16:50
AUD-8-0.5	1603633-36	Soil	10/16/16 14:25	10/16/16 16:50
UB-2-0.5	1603633-38	Soil	10/16/16 14:30	10/16/16 16:50
UB-1-0.5	1603633-40	Soil	10/16/16 14:40	10/16/16 16:50
EB-7-10/16/16	1603633-42	Water	10/16/16 15:00	10/16/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AUD-11-0.5

Lab ID: 1603633-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:35	
Lead	17	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:35	



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Reported : 10/26/2016

Client Sample ID AUD-10-0.5

Lab ID: 1603633-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.4	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 15:34	D1
Lead	19	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 15:34	D1



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Reported : 10/26/2016

Client Sample ID P-7-0.5

Lab ID: 1603633-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	10	7.0	10	B6J0569	10/20/2016	10/24/16 12:08	D1
Lead	13	10	1.1	10	B6J0569	10/20/2016	10/24/16 12:08	D1



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID P-6-0.5

Lab ID: 1603633-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:47	D1
Lead	7.5	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:47	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID Q-6-0.5

Lab ID: 1603633-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 11:48	
Lead	6.3	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 11:48	



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Reported : 10/26/2016

Client Sample ID Q-6-0.5-DUP

Lab ID: 1603633-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	20	14	20	B6J0569	10/20/2016	10/21/16 16:49	D1
Lead	4.9	20	2.2	20	B6J0569	10/20/2016	10/21/16 16:49	D1, J



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID Q-7-0.5

Lab ID: 1603633-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:49	D1
Lead	9.1	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:49	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID Q-4-0.5

Lab ID: 1603633-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:50	D1, J
Lead	4.9	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:50	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID R-4-0.5

Lab ID: 1603633-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	20	14	20	B6J0569	10/20/2016	10/21/16 16:50	D1
Lead	4.0	20	2.2	20	B6J0569	10/20/2016	10/21/16 16:50	D1, J



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID S-4-0.5

Lab ID: 1603633-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 15:57	D1
Lead	8.3	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 15:57	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID T-4-0.5

Lab ID: 1603633-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	20	14	20	B6J0569	10/20/2016	10/21/16 16:51	D1
Lead	5.4	20	2.2	20	B6J0569	10/20/2016	10/21/16 16:51	D1, J



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Client Sample ID T-4-0.5-DUP

Lab ID: 1603633-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 11:58	
Lead	3.4	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 11:58	



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Client Sample ID R-7-0.5

Lab ID: 1603633-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 11:59	
Lead	7.9	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 11:59	



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Client Sample ID S-7-0.5

Lab ID: 1603633-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.1	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:57	D1
Lead	7.8	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:57	D1



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Client Sample ID T-7-0.5

Lab ID: 1603633-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 12:02	
Lead	4.9	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 12:02	



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Client Sample ID HVAC-2-0.5

Lab ID: 1603633-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 12:03	
Lead	4.7	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 12:03	



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Reported : 10/26/2016

Client Sample ID AUD-9-0.5

Lab ID: 1603633-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 15:59	D1, J
Lead	6.0	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 15:59	D1



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Client Sample ID AUD-9-0.5-DUP

Lab ID: 1603633-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 16:00	D1, J
Lead	5.9	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 16:00	D1



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Client Sample ID UB-3-0.5

Lab ID: 1603633-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.5	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 14:01	D1
Lead	26	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 14:01	D1



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Client Sample ID AUD-8-0.5

Lab ID: 1603633-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 12:10	
Lead	3.2	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 12:10	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

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Reported : 10/26/2016

Client Sample ID UB-2-0.5

Lab ID: 1603633-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.9	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:02	D1
Lead	8.6	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:02	D1



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Client Sample ID UB-1-0.5

Lab ID: 1603633-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.0	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:04	D1, J
Lead	6.1	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:04	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
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Client Sample ID EB-7-10/16/16

Lab ID: 1603633-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:53	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:53	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:46	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:46	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:46	
Surrogate: Decachlorobiphenyl	38.7 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:46	
Surrogate: Tetrachloro-m-xylene	70.8 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:46	



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Client Sample ID EB-7-10/16/16

Lab ID: 1603633-42

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Surrogate: Decachlorobiphenyl	43.7 %		7 - 127		B6J0485	10/17/2016	10/17/16 16:56	
Surrogate: Tetrachloro-m-xylene	83.5 %		14 - 122		B6J0485	10/17/2016	10/17/16 16:56	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0568 - EPA 3050B_S									
Blank (B6J0568-BLK1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0568-BS1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	43.7021	1.0	50.0000		87.4	80 - 120			
Lead	44.1417	1.0	50.0000		88.3	80 - 120			
Duplicate (B6J0568-DUP1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	ND	2.0		ND	NR			20	
Lead	2.71624	2.0		2.64430	NR		2.68	20	
Matrix Spike (B6J0568-MS1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	106.772	1.0	125.000	0.999000	84.6	59 - 103			
Lead	105.815	1.0	125.000	2.64430	82.5	34 - 129			
Matrix Spike Dup (B6J0568-MSD1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	98.4850	1.0	125.000	0.999000	78.0	59 - 103	8.07	20	
Lead	98.4198	1.0	125.000	2.64430	76.6	34 - 129	7.24	20	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0569 - EPA 3050B_S

Blank (B6J0569-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0569-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	44.7390	1.0	50.0000		89.5	80 - 120			
Lead	45.1086	1.0	50.0000		90.2	80 - 120			

Duplicate (B6J0569-DUP1)

Source: 1603633-03

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	10.3802	5.0		8.41042	NR		21.0	20	R
Lead	20.1856	5.0		18.8001	NR		7.11	20	

Matrix Spike (B6J0569-MS1)

Source: 1603633-03

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	131.257	5.0	125.000	8.41042	98.3	59 - 103			
Lead	145.006	5.0	125.000	18.8001	101	34 - 129			

Matrix Spike Dup (B6J0569-MSD1)

Source: 1603633-03

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	138.492	10	125.000	8.41042	104	59 - 103	5.36	20	M1
Lead	164.000	10	125.000	18.8001	116	34 - 129	12.3	20	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0570 - EPA 3050B_S

Blank (B6J0570-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0570-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	55.5910	1.0	50.0000		111	80 - 120			
Lead	55.3676	1.0	50.0000		111	80 - 120			

Duplicate (B6J0570-DUP1)

Source: 1603633-38

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	7.80509	5.0		5.91037	NR		27.6	20	R
Lead	8.58144	5.0		8.58833	NR		0.0803	20	

Matrix Spike (B6J0570-MS1)

Source: 1603633-38

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	118.270	2.0	125.000	5.91037	89.9	59 - 103			
Lead	117.146	2.0	125.000	8.58833	86.8	34 - 129			

Matrix Spike Dup (B6J0570-MSD1)

Source: 1603633-38

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	113.652	2.0	125.000	5.91037	86.2	59 - 103	3.98	20	
Lead	115.624	2.0	125.000	8.58833	85.6	34 - 129	1.31	20	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99			
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99			
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93			
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93			
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98			
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98			
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141			
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141			
Surrogate: Decachlorobiphenyl	0.3766		0.500000		75.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3709		0.500000		74.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4193		0.500000		83.9	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4522		0.500000		90.4	14 - 122			

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20	
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20	
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20	
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20	
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20	
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20	
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20	
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20	
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20	
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20	
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20	
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20	
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20	
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20	
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20	
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20	
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20	
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20	
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20	
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20	
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20	
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20	
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20	
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20	
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20	
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20	
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20	



Certificate of Analysis

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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
Surrogate: Decachlorobiphenyl	0.3734		0.500000		74.7	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3662		0.500000		73.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4183		0.500000		83.7	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4519		0.500000		90.4	14 - 122			



Certificate of Analysis

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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 10/26/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3834</i>		<i>0.500000</i>		<i>76.7</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4914</i>		<i>0.500000</i>		<i>98.3</i>	<i>14 - 122</i>			

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3873</i>		<i>0.500000</i>		<i>77.5</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.5015</i>		<i>0.500000</i>		<i>100</i>	<i>14 - 122</i>			

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3735</i>		<i>0.500000</i>		<i>74.7</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4908</i>		<i>0.500000</i>		<i>98.2</i>	<i>14 - 122</i>			



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 10/26/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCO Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac <input type="checkbox"/> Other:	Condition Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
1. CHILLED 2. HEADSPACE (VDA) 3. CONTAINER INTACT 4. SEALED		5. # OF SAMPLES MATCH COC 6. PRESERVED 7. COOLER TEMP. deg. C: 3.2	

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7467	
City: IRVINE		State: CA		Zip: 92618	
Attn: JOHN NORDENSTAM jnordenstam@trcsolutions.com		Email:		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		Address:		City:	
State: CA		Zip: 92618		Tel: 949-341-7467	

Project Name: LAUSD ROOSEVELT HS		Quote No: 6167131		Special Instructions/Comments:	
Project No: 265642-0000/TA02		PO #: 100816			
Sampler: Giuseppe Cefalu					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603633-01	AUD-11-0.5		10/16/16	0730
2	-02	AUD-11-2.5		10/16/16	0740
3	-03	AUD-10-0.5		10/16/16	0830
4	-04	AUD-10-2.5		10/16/16	0850
5	-05	P-7-0.5		10/16/16	0940
6	-06	P-7-2.5		10/16/16	0950
7	-07	P-6-0.5		10/16/16	0910
8	-08	P-6-2.5		10/16/16	0920
9	-09	Q-6-0.5		10/16/16	1000
10	-10	Q-6-0.5-DUP		10/16/16	1002

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday, Friday, Saturday 8:00 AM to 12:00 PM. 2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM. 3. The following turnaround time conditions apply: TAT = 0 - 300% Surcharge SHORT BUSINESS DAY (received by 9:00 AM) TAT = 1 - 50% Surcharge SHORT BUSINESS DAY (received by 9:00 AM) TAT = 2 - 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3 - 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4 - 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5 - NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM) 4. Weekend, holiday, after-hour work - ask for quote. 5. Subcontract TAT to 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge. 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. 9. Storage and Report Fees: - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforms? ed report; \$35 per reproduced EDD. 10. Rush TAT/EDD samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.		As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Relinquished by: (Signature and Printed Name) [Signature] Giuseppe Cefalu		Received by: (Signature and Printed Name) [Signature] Ros Surney	
Relinquished by: (Signature and Printed Name) [Signature] Ros Surney		Received by: (Signature and Printed Name) [Signature] Edward Rodriguez	
Date: 10/16/16 Time: 1650		Date: 10/16/16 Time: 1520	

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/> Other	2. HEADSPACE (VDA)	<input type="checkbox"/>
<input type="checkbox"/> Other	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	4. COOLER TEMP, deg C	5.2
<input type="checkbox"/>	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7467	
Attn: JOHN NORDENSTAM		City: IRVINE		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		State: CA		Zip: 92618	
Address: 9685 RESEARCH DRIVE		Email: SEND INVOICE TO:		X same as SEND REPORT TO	
City: IRVINE		Attn:		Email:	
State: CA		Company:		State:	
Zip: 92618		Address:		Zip:	

Project Name: LAUSD ROOSEVELTHS		Quote No: E161131		Special Instructions/Comments:	
Project No.: 265642-0000/TA02		PO #: 100816			
Sampler: Giuseppe Cefalu					
Lab No.		Sample ID / Location		Sample Description	
ITEM					
1	1603633-11	Q-6-2.5	10/16/16	1020	
2	1603633-12	Q-7-0.5	10/16/16	1030	
3	1603633-13	Q-7-2.5	10/16/16	1040	
4	1603633-14	Q-4-0.5	10/16/16	1050	
5	1603633-15	Q-4-2.5	10/16/16	1100	
6	1603633-16	R-4-0.5	10/16/16	1130	
7	1603633-17	R-4-2.5	10/16/16	1140	
8	1603633-18	S-4-0.5	10/16/16	1200	
9	1603633-19	S-4-2.5	10/16/16	1210	
10	1603633-20	T-4-0.5	10/16/16	1240	

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 (624 Volatiles)		SOIL / SEDIMENT / SLUDGE		1	4	ROUTINE	
8015 (GRO)		SOLIDS / WIFE / FILTER		1	4	LEGAL	
8015 (DRO)		WATER - DRINKING / GROUND		1	4	RWQCB	
8270 (Semi-volatiles)		WATER - STORM / WASTE		1	4	LEVEL IV	
8081 (Organochlorine Pesticides)		AQUEOUS / LAYERED - OIL		1	4	REMARKS	
8082 (PCBs)				1	4	5=Zn (Ac); 6=NaOH; 7=HNO3; 8=H2SO4; 9=AC	
6010 (7000 Title 22 Metals)				1	4		
TO-15				1	4		
AS EPA 601B				1	4		
PB EPA 601B				1	4		

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature		Date	
ROSS SURENCY		ROSS SURENCY		10/16/16	
Submitter Print Name		Signature		Time	
				1520	
Received (Signature and Printed Name)		Date		Time	
ROSS SURENCY		10/16/16		1520	
Received by (Signature and Printed Name)		Date		Time	
ROSS SURENCY		10/16/16		1520	
Relinquished by (Signature and Printed Name)		Date		Time	
ROSS SURENCY		10/16/16		1520	

CUSTOMER

PROJECT SAMPLES

TERMS

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: **TRC SOLUTIONS, INC** Address: **4685 RESEARCH DRIVE** Tel: **949-341-7464**
City: **IRVINE** State: **CA** Zip: **92618** Fax: **949-727-7311**

Attn: **JOHN NORDENSTAM** Email: **jordanstam@trcsolutions.com**
Company: **TRC SOLUTIONS, INC**
Address: **4685 RESEARCH DRIVE**
City: **IRVINE** State: **CA** Zip: **92618**

SEND REPORT TO:
Attn: _____ Company: _____
Address: _____
City: _____ State: _____ Zip: _____

Email: _____
SEND INVOICE TO: _____
Email: _____

Project Name: **LAUSD ROOSEVELT HS** Quote No: **E/6I131**
Project No.: **265642-0006/TA02** PO #: _____
Sampler: **Giuseppe Cefalo** 100816

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603633-21	T-4-0.5-DUF		10/16/16	1241
2	-22	T-4-2.5		10/16/16	1250
3	-23	R-7-0.5		10/16/16	1126
4	-24	R-7-2.5		10/16/16	1130
5	-25	S-7-0.5		10/16/16	1140
6	-26	S-7-2.5		10/16/16	1150
7	-27	T-7-0.5		10/16/16	1220
8	-28	T-7-2.5		10/16/16	1230
9	-29	HVAC-2-0.5		10/16/16	1400
10	-30	HVAC-2-2.5		10/16/16	1410

Special Instructions/Comments:

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS SURACEY Submitter Print Name
Date: 10/16/16 Time: 1520
Signature: *Ross Suracey*

Received by: (Signature and Printed Name)
Date: 10/16/16 Time: 1650
Signature: *Edward Rodriguez*

Relinquished by: (Signature and Printed Name)
Date: 10/16/16 Time: 1650
Signature: *Giuseppe Cefalo*

CHAIN OF CUSTODY RECORD

Page 4 of 5

Instruction: Complete all shaded areas.

Company: **TRC SOLUTIONS, INC** Address: **9685 RESEARCH DRIVE** Tel: **949-341-7464**
City: **IRVINE** State: **CA** Zip: **92618** Fax: **949-727-7311**

Attn: **JOHN NORDENSTAM** Email: **jordanstam@trcsolutions.com** Company: **TRC SOLUTIONS, INC**
Address: **9685 RESEARCH DRIVE** City: **IRVINE** State: **CA** Zip: **92618**

Project Name: **LAUSD ROOSEVELT HS** Quote No: **E167131** PO #: **265642-0000/TA02**
Project No.: **265642-0000/TA02** Sampler: **Giuseppe Celala**

Special Instructions/Comments: **100816**

Encircle or Write Requested Analysis: **8260 / 624 (Volatiles)**
8015 (GRO)
8015 (DRO)
8270 (Semi-volatiles)
8082 (PCBs)
6010 / 7000 (Title 22 Metals)
AS EPA 6015
AS EPA 6010

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603633-31	AUD-0.5	10/16/16 1420	10/16/16	1420	X	X	5	4
2	-32	AUD-9-0.5-DUP	10/16/16 1421	10/16/16	1421	X	X	5	4
3	-33	AUD-9-2.5	10/16/16 1431	10/16/16	1431	X	X	5	4
4	-34	UB-3-0.5	10/16/16 1415	10/16/16	1415	X	X	5	4
5	-35	UB-3-2.5	10/16/16 1425	10/16/16	1425	X	X	5	4
6	-36	AUD-8-0.5	10/16/16 1435	10/16/16	1435	X	X	5	4
7	-37	AUD-8-2.5	10/16/16 1430	10/16/16	1430	X	X	5	4
8	-38	UB-2-0.5	10/16/16 1440	10/16/16	1440	X	X	5	4
9	-39	UB-2-2.5	10/16/16 1440	10/16/16	1440	X	X	5	4
10	-40	UB-1-0.5	10/16/16 1440	10/16/16	1440	X	X	5	4

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Ross S. P. Celala** Signature: **Ross S. P. Celala** Date: **10/16/16** Time: **1520**

Relinquished by: (Signature and Printed Name) **Giuseppe Celala** Date: **10/16/16** Time: **1520**
Relinquished by: (Signature and Printed Name) **Giuseppe Celala** Date: **10/16/16** Time: **1650**
Relinquished by: (Signature and Printed Name) **Giuseppe Celala** Date: **10/16/16** Time: **1650**



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603633
Client Reference : LAUSD ROOSEVELT HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 16, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a white background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
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Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AUD-11-0.5	1603633-01	Soil	10/16/16 7:30	10/16/16 16:50
AUD-11-2.5	1603633-02	Soil	10/16/16 7:40	10/16/16 16:50
AUD-10-0.5	1603633-03	Soil	10/16/16 8:30	10/16/16 16:50
AUD-10-2.5	1603633-04	Soil	10/16/16 8:50	10/16/16 16:50
P-7-0.5	1603633-05	Soil	10/16/16 9:40	10/16/16 16:50
P-7-2.5	1603633-06	Soil	10/16/16 9:50	10/16/16 16:50
P-6-0.5	1603633-07	Soil	10/16/16 9:10	10/16/16 16:50
P-6-2.5	1603633-08	Soil	10/16/16 9:20	10/16/16 16:50
Q-6-0.5	1603633-09	Soil	10/16/16 10:00	10/16/16 16:50
Q-6-0.5-DUP	1603633-10	Soil	10/16/16 10:02	10/16/16 16:50
Q-6-2.5	1603633-11	Soil	10/16/16 10:20	10/16/16 16:50
Q-7-0.5	1603633-12	Soil	10/16/16 10:30	10/16/16 16:50
Q-7-2.5	1603633-13	Soil	10/16/16 10:40	10/16/16 16:50
Q-4-0.5	1603633-14	Soil	10/16/16 10:50	10/16/16 16:50
Q-4-2.5	1603633-15	Soil	10/16/16 11:00	10/16/16 16:50
R-4-0.5	1603633-16	Soil	10/16/16 11:30	10/16/16 16:50
R-4-2.5	1603633-17	Soil	10/16/16 11:40	10/16/16 16:50
S-4-0.5	1603633-18	Soil	10/16/16 12:00	10/16/16 16:50
S-4-2.5	1603633-19	Soil	10/16/16 12:10	10/16/16 16:50
T-4-0.5	1603633-20	Soil	10/16/16 12:40	10/16/16 16:50
T-4-0.5-DUP	1603633-21	Soil	10/16/16 12:41	10/16/16 16:50
T-4-2.5	1603633-22	Soil	10/16/16 12:50	10/16/16 16:50
R-7-0.5	1603633-23	Soil	10/16/16 11:20	10/16/16 16:50
R-7-2.5	1603633-24	Soil	10/16/16 11:30	10/16/16 16:50
S-7-0.5	1603633-25	Soil	10/16/16 11:40	10/16/16 16:50
S-7-2.5	1603633-26	Soil	10/16/16 11:50	10/16/16 16:50
T-7-0.5	1603633-27	Soil	10/16/16 12:20	10/16/16 16:50
T-7-2.5	1603633-28	Soil	10/16/16 12:30	10/16/16 16:50
HVAC-2-0.5	1603633-29	Soil	10/16/16 14:00	10/16/16 16:50
HVAC-2-2.5	1603633-30	Soil	10/16/16 14:10	10/16/16 16:50
AUD-9-0.5	1603633-31	Soil	10/16/16 14:20	10/16/16 16:50
AUD-9-0.5-DUP	1603633-32	Soil	10/16/16 14:21	10/16/16 16:50
AUD-9-2.5	1603633-33	Soil	10/16/16 14:31	10/16/16 16:50
UB-3-0.5	1603633-34	Soil	10/16/16 14:15	10/16/16 16:50
UB-3-2.5	1603633-35	Soil	10/16/16 14:25	10/16/16 16:50
AUD-8-0.5	1603633-36	Soil	10/16/16 14:25	10/16/16 16:50
AUD-8-2.5	1603633-37	Soil	10/16/16 14:35	10/16/16 16:50



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

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Reported : 11/08/2016

UB-2-0.5	1603633-38	Soil	10/16/16 14:30	10/16/16 16:50
UB-2-2.5	1603633-39	Soil	10/16/16 14:40	10/16/16 16:50
UB-1-0.5	1603633-40	Soil	10/16/16 14:40	10/16/16 16:50
UB-1-2.5	1603633-41	Soil	10/16/16 14:50	10/16/16 16:50
EB-7-10/16/16	1603633-42	Water	10/16/16 15:00	10/16/16 16:50
Q-4-2.5 Duplicate	1603633-43	Soil	10/16/16 11:00	10/16/16 16:50
AUD-8-2.5 Duplicate	1603633-44	Soil	10/16/16 14:35	10/16/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-11-0.5

Lab ID: 1603633-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0568	10/20/2016	10/21/16 11:35	
Lead	17	1.0	0.11	1	B6J0568	10/20/2016	10/21/16 11:35	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-11-2.5

Lab ID: 1603633-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:09	
Lead	3.8	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:09	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-10-0.5

Lab ID: 1603633-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.4	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 15:34	D1
Lead	19	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 15:34	D1



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Reported : 11/08/2016

Client Sample ID AUD-10-2.5

Lab ID: 1603633-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0040	11/02/2016	11/03/16 13:10	
Lead	9.2	1.0	0.11	1	B6K0040	11/02/2016	11/03/16 13:10	



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Reported : 11/08/2016

Client Sample ID P-7-0.5

Lab ID: 1603633-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	10	7.0	10	B6J0569	10/20/2016	10/24/16 12:08	D1
Lead	13	10	1.1	10	B6J0569	10/20/2016	10/24/16 12:08	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID P-7-2.5

Lab ID: 1603633-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 11:21	
Lead	7.3	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 11:21	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID P-6-0.5

Lab ID: 1603633-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:47	D1
Lead	7.5	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:47	D1



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Reported : 11/08/2016

Client Sample ID P-6-2.5

Lab ID: 1603633-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.5	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 11:34	
Lead	4.3	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 11:34	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Q-6-0.5

Lab ID: 1603633-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 11:48	
Lead	6.3	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 11:48	



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Reported : 11/08/2016

Client Sample ID Q-6-0.5-DUP

Lab ID: 1603633-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	20	14	20	B6J0569	10/20/2016	10/21/16 16:49	D1
Lead	4.9	20	2.2	20	B6J0569	10/20/2016	10/21/16 16:49	D1, J



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Q-6-2.5

Lab ID: 1603633-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.8	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 11:37	
Lead	4.4	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 11:37	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Q-7-0.5

Lab ID: 1603633-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:49	D1
Lead	9.1	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:49	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Q-7-2.5

Lab ID: 1603633-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.5	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 11:41	
Lead	5.6	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 11:41	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Q-4-0.5

Lab ID: 1603633-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:50	D1, J
Lead	4.9	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:50	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Q-4-2.5

Lab ID: 1603633-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.8	2.0	1.4	2	B6K0041	11/02/2016	11/03/16 12:51	
Lead	8.2	2.0	0.22	2	B6K0041	11/02/2016	11/03/16 12:51	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID R-4-0.5

Lab ID: 1603633-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	20	14	20	B6J0569	10/20/2016	10/21/16 16:50	D1
Lead	4.0	20	2.2	20	B6J0569	10/20/2016	10/21/16 16:50	D1, J



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID R-4-2.5

Lab ID: 1603633-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.3	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 11:54	D5
Lead	6.3	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 11:54	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID S-4-0.5

Lab ID: 1603633-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 15:57	D1
Lead	8.3	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 15:57	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID S-4-2.5

Lab ID: 1603633-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.3	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 11:59	
Lead	4.4	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 11:59	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID T-4-0.5

Lab ID: 1603633-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	20	14	20	B6J0569	10/20/2016	10/21/16 16:51	D1
Lead	5.4	20	2.2	20	B6J0569	10/20/2016	10/21/16 16:51	D1, J



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID T-4-0.5-DUP

Lab ID: 1603633-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 11:58	
Lead	3.4	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 11:58	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID T-4-2.5

Lab ID: 1603633-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:02	
Lead	7.7	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:02	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID R-7-0.5

Lab ID: 1603633-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 11:59	
Lead	7.9	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 11:59	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID R-7-2.5

Lab ID: 1603633-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.5	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:06	
Lead	9.7	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:06	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID S-7-0.5

Lab ID: 1603633-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.1	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 13:57	D1
Lead	7.8	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 13:57	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID S-7-2.5

Lab ID: 1603633-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:09	
Lead	6.5	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:09	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID T-7-0.5

Lab ID: 1603633-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 12:02	
Lead	4.9	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 12:02	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID T-7-2.5

Lab ID: 1603633-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:12	
Lead	17	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:12	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID HVAC-2-0.5

Lab ID: 1603633-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 12:03	
Lead	4.7	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 12:03	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID HVAC-2-2.5

Lab ID: 1603633-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:16	
Lead	3.1	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:16	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-9-0.5

Lab ID: 1603633-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 15:59	D1, J
Lead	6.0	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 15:59	D1



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Reported : 11/08/2016

Client Sample ID AUD-9-0.5-DUP

Lab ID: 1603633-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	5.0	3.5	5	B6J0569	10/20/2016	10/21/16 16:00	D1, J
Lead	5.9	5.0	0.56	5	B6J0569	10/20/2016	10/21/16 16:00	D1



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Reported : 11/08/2016

Client Sample ID AUD-9-2.5

Lab ID: 1603633-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:19	
Lead	1.3	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:19	



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Client Sample ID UB-3-0.5

Lab ID: 1603633-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.5	2.0	1.4	2	B6J0569	10/20/2016	10/21/16 14:01	D1
Lead	26	2.0	0.22	2	B6J0569	10/20/2016	10/21/16 14:01	D1



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Client Sample ID UB-3-2.5

Lab ID: 1603633-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:23	
Lead	5.1	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:23	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-8-0.5

Lab ID: 1603633-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6J0569	10/20/2016	10/21/16 12:10	
Lead	3.2	1.0	0.11	1	B6J0569	10/20/2016	10/21/16 12:10	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-8-2.5

Lab ID: 1603633-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:26	
Lead	2.3	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:26	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID UB-2-0.5

Lab ID: 1603633-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.9	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:02	D1
Lead	8.6	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:02	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
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Reported : 11/08/2016

Client Sample ID UB-2-2.5

Lab ID: 1603633-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.3	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:29	
Lead	4.7	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:29	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID UB-1-0.5

Lab ID: 1603633-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.0	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:04	D1, J
Lead	6.1	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:04	D1



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID UB-1-2.5

Lab ID: 1603633-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6K0041	11/02/2016	11/03/16 12:40	
Lead	2.8	1.0	0.11	1	B6K0041	11/02/2016	11/03/16 12:40	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID EB-7-10/16/16

Lab ID: 1603633-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:53	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:53	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:46	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:46	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:46	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:46	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:46	
Surrogate: Decachlorobiphenyl	38.7 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:46	
Surrogate: Tetrachloro-m-xylene	70.8 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:46	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID EB-7-10/16/16

Lab ID: 1603633-42

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 16:56	
<i>Surrogate: Decachlorobiphenyl</i>	<i>43.7 %</i>		<i>7 - 127</i>		B6J0485	10/17/2016	<i>10/17/16 16:56</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>83.5 %</i>		<i>14 - 122</i>		B6J0485	10/17/2016	<i>10/17/16 16:56</i>	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Q-4-2.5 Duplicate
Lab ID: 1603633-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.5	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 14:00	
Lead	11	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 14:00	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-8-2.5 Duplicate

Lab ID: 1603633-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 14:03	
Lead	2.4	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 14:03	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0568 - EPA 3050B_S									
Blank (B6J0568-BLK1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0568-BS1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	43.7021	1.0	50.0000		87.4	80 - 120			
Lead	44.1417	1.0	50.0000		88.3	80 - 120			
Duplicate (B6J0568-DUP1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	ND	2.0		ND	NR			20	
Lead	2.71624	2.0		2.64430	NR		2.68	20	
Matrix Spike (B6J0568-MS1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	106.772	1.0	125.000	0.999000	84.6	59 - 103			
Lead	105.815	1.0	125.000	2.64430	82.5	34 - 129			
Matrix Spike Dup (B6J0568-MSD1)				Source: 1603632-01		Prepared: 10/20/2016 Analyzed: 10/21/2016			
Arsenic	98.4850	1.0	125.000	0.999000	78.0	59 - 103	8.07	20	
Lead	98.4198	1.0	125.000	2.64430	76.6	34 - 129	7.24	20	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0569 - EPA 3050B_S

Blank (B6J0569-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0569-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	44.7390	1.0	50.0000		89.5	80 - 120			
Lead	45.1086	1.0	50.0000		90.2	80 - 120			

Duplicate (B6J0569-DUP1)

Source: 1603633-03

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	10.3802	5.0		8.41042	NR		21.0	20	R
Lead	20.1856	5.0		18.8001	NR		7.11	20	

Matrix Spike (B6J0569-MS1)

Source: 1603633-03

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	131.257	5.0	125.000	8.41042	98.3	59 - 103			
Lead	145.006	5.0	125.000	18.8001	101	34 - 129			

Matrix Spike Dup (B6J0569-MSD1)

Source: 1603633-03

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	138.492	10	125.000	8.41042	104	59 - 103	5.36	20	M1
Lead	164.000	10	125.000	18.8001	116	34 - 129	12.3	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0570 - EPA 3050B_S

Blank (B6J0570-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0570-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	55.5910	1.0	50.0000		111	80 - 120			
Lead	55.3676	1.0	50.0000		111	80 - 120			

Duplicate (B6J0570-DUP1)

Source: 1603633-38

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	7.80509	5.0		5.91037	NR		27.6	20	R
Lead	8.58144	5.0		8.58833	NR		0.0803	20	

Matrix Spike (B6J0570-MS1)

Source: 1603633-38

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	118.270	2.0	125.000	5.91037	89.9	59 - 103			
Lead	117.146	2.0	125.000	8.58833	86.8	34 - 129			

Matrix Spike Dup (B6J0570-MSD1)

Source: 1603633-38

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	113.652	2.0	125.000	5.91037	86.2	59 - 103	3.98	20	
Lead	115.624	2.0	125.000	8.58833	85.6	34 - 129	1.31	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0040 - EPA 3050B_S

Blank (B6K0040-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0040-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	45.5583	1.0	50.0000		91.1	80 - 120			
Lead	47.8163	1.0	50.0000		95.6	80 - 120			

Duplicate (B6K0040-DUP1)

Source: 1603632-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	5.0		ND	NR			20	D5
Lead	2.89578	5.0		2.66079	NR		8.46	20	D5, J

Matrix Spike (B6K0040-MS1)

Source: 1603632-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	88.7646	1.0	125.000	0.772220	70.4	59 - 103			
Lead	90.6486	1.0	125.000	2.66079	70.4	34 - 129			

Matrix Spike Dup (B6K0040-MSD1)

Source: 1603632-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	110.818	1.0	125.000	0.772220	88.0	59 - 103	22.1	20	R
Lead	112.997	1.0	125.000	2.66079	88.3	34 - 129	21.9	20	R



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Report To : John Nordenstam
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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0041 - EPA 3050B_S

Blank (B6K0041-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0041-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	43.6734	1.0	50.0000		87.3	80 - 120			
Lead	46.9944	1.0	50.0000		94.0	80 - 120			

Duplicate (B6K0041-DUP1)

Source: 1603633-06

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	3.70819	1.0		2.92948	NR		23.5	20	
Lead	7.75976	1.0		7.33390	NR		5.64	20	

Matrix Spike (B6K0041-MS1)

Source: 1603633-06

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	97.9409	1.0	125.000	2.92948	76.0	59 - 103			
Lead	107.441	1.0	125.000	7.33390	80.1	34 - 129			

Matrix Spike Dup (B6K0041-MSD1)

Source: 1603633-06

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	95.8114	1.0	125.000	2.92948	74.3	59 - 103	2.20	20	
Lead	104.584	1.0	125.000	7.33390	77.8	34 - 129	2.70	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99		
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99		
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93		
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93		
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98		
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98		
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141		
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141		
Surrogate: Decachlorobiphenyl	0.3766		0.500000		75.3	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3709		0.500000		74.2	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4193		0.500000		83.9	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4522		0.500000		90.4	14 - 122		

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
Surrogate: Decachlorobiphenyl	0.3734		0.500000		74.7	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3662		0.500000		73.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4183		0.500000		83.7	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4519		0.500000		90.4	14 - 122			



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Project Number : LAUSD ROOSEVELT HS, 265642.0000
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3834 0.500000 76.7 7 - 127
0.4914 0.500000 98.3 14 - 122

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3873 0.500000 77.5 7 - 127
0.5015 0.500000 100 14 - 122

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3735 0.500000 74.7 7 - 127
0.4908 0.500000 98.2 14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/> 6. PRESERVED <input type="checkbox"/> 7. COOLER TEMP. deg. C: 3.2 <input type="checkbox"/> 4. SEALED

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 949-341-7467	
Attn: JOHN NORDENSTAM jnordenstam@trcsolutions.com		City: IRVINE		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		State: CA		Zip: 92618	
Address: 9685 RESEARCH DRIVE		Email:		SEND INVOICE TO:	
City: IRVINE		State: CA		Zip: 92618	

Project Name: LAUSD ROOSEVELT HS		Quote No: 6167131		Special Instructions/Comments:	
Project No: 265642-0000/TA02		PO #: 100816			
Sampler: Giuseppe Cefalu					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603633-01	AUD-11-0.5		10/16/16	0730
2	-02	AUD-11-2.5		10/16/16	0740
3	-03	AUD-10-0.5		10/16/16	0830
4	-04	AUD-10-2.5		10/16/16	0850
5	-05	P-7-0.5		10/16/16	0940
6	-06	P-7-2.5		10/16/16	0950
7	-07	P-6-0.5		10/16/16	0910
8	-08	P-6-2.5		10/16/16	0920
9	-09	Q-6-0.5		10/16/16	1000
10	-10	Q-6-0.5-DUP		10/16/16	1002

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature: <u>Pro Surmy</u> Submitter Print Name: _____	
Date: 10/16/16 Time: 1520		Date: 10/16/16 Time: 1650	

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: **TRC SOLUTIONS, INC** Address: **4685 RESEARCH DRIVE** Tel: **949-341-7464**
City: **IRVINE** State: **CA** Zip: **92618** Fax: **949-727-7311**

Attn: **JOHN NORDENSTAM** Email: **jordanstam@trcsolutions.com**
Company: **TRC SOLUTIONS, INC**
Address: **4685 RESEARCH DRIVE**
City: **IRVINE** State: **CA** Zip: **92618**

SEND REPORT TO: _____ Email: _____
SEND INVOICE TO: _____ Email: _____
same as SEND REPORT TO

Project Name: **LAUSD ROOSEVELT HS** Quote No: **E/6I131**
Project No.: **265642-0006/TA02** PO #: _____
Sampler: **Giuseppe Cefalo** 100816

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603633-21	T-4-0.5-DUF		10/14/16	1241
2	-22	T-4-2.5		10/16/16	1250
3	-23	R-7-0.5		10/16/16	1126
4	-24	R-7-2.5		10/16/16	1130
5	-25	S-7-0.5		10/16/16	1140
6	-26	S-7-2.5		10/16/16	1150
7	-27	T-7-0.5		10/16/16	1220
8	-28	T-7-2.5		10/16/16	1230
9	-29	HVAC-2-0.5		10/16/16	1400
10	-30	HVAC-2-2.5		10/16/16	1410

Special Instructions/Comments: _____

Encircle or Write Requested Analysis

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)			
8015 (GRO)			
8015 (DRO)			
8270 (Semi-volatiles)			
8081 (Organochlorine Pesticides)			
8082 (PCBs)			
6010 / 7000 (Title 22 Metals)			
TO-15			
AS EPA 6016			
Pb EPA 6016			

Encircle Sample Matrix: SOLID / SEDIMENT / SLUDGE, WATER - DRINKING / GROUND, WATER - STORM / WASTE, AQUEOUS / LAYERED - OIL

Container: # _____

QA/QC: Routine ☒, Caltrans ☐, Legal ☐, RWQCB ☐, Level IV ☐

Material: 1=Glass, 2=Plastic, 3=Metal
Type: 1=Tube, 2=Vial, 3=Filter, 4=Pin, 5=Jar, 6=Bag, 7=Canister

Preservative: 1=HCl, 2=HNO3, 3=H2SO4, 4=AC, 5=Zn (Aq), 6=NaOH, 7=H2SO4, 8=AC

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Ross Suranency** Signature: **Ross Suranency** Date: **10/16/16** Time: **1520**

Received by: **Giuseppe Cefalo** Signature: **Giuseppe Cefalo** Date: **10/16/16** Time: **1650**

Relinquished by: **John Nordenstam** Signature: **John Nordenstam** Date: **10/16/16** Time: **1650**

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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October 26, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603634

Client Reference : LAUSD-Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 16, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram to the left.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/26/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MB-3-0.5	1603634-01	Soil	10/16/16 7:50	10/16/16 16:50
MB-6-0.5	1603634-03	Soil	10/16/16 8:10	10/16/16 16:50
MB-6-0.5-DUP	1603634-04	Soil	10/16/16 8:15	10/16/16 16:50
AA-653-2-0.5	1603634-06	Soil	10/16/16 8:30	10/16/16 16:50
AA-653-4-0.5	1603634-08	Soil	10/16/16 8:33	10/16/16 16:50
AA-652-1-0.5	1603634-10	Soil	10/16/16 8:47	10/16/16 16:50
AA-652-4-0.5	1603634-12	Soil	10/16/16 8:55	10/16/16 16:50
AA-652-3-0.5	1603634-14	Soil	10/16/16 9:09	10/16/16 16:50
AA-652-3-0.5-DUP	1603634-15	Soil	10/16/16 9:11	10/16/16 16:50
AA-652-2-0.5	1603634-17	Soil	10/16/16 9:30	10/16/16 16:50
AA-653-3-0.5	1603634-19	Soil	10/16/16 9:50	10/16/16 16:50
AUD-1-0.5	1603634-21	Soil	10/16/16 10:10	10/16/16 16:50
AUD-12-0.5	1603634-23	Soil	10/16/16 10:25	10/16/16 16:50
AUD-2-0.5	1603634-25	Soil	10/16/16 10:45	10/16/16 16:50
AUD-2-0.5-DUP	1603634-26	Soil	10/16/16 10:50	10/16/16 16:50
AUD-3-0.5	1603634-28	Soil	10/16/16 11:10	10/16/16 16:50
AUD-4-0.5	1603634-30	Soil	10/16/16 11:30	10/16/16 16:50
AUD-5-0.5	1603634-32	Soil	10/16/16 11:50	10/16/16 16:50
AUD-6-0.5	1603634-34	Soil	10/16/16 12:05	10/16/16 16:50
AUD-7-0.5-DUP	1603634-36	Soil	10/16/16 12:20	10/16/16 16:50
AUD-7-0.5	1603634-37	Soil	10/16/16 12:25	10/16/16 16:50
UB-4-0.5	1603634-39	Soil	10/16/16 12:40	10/16/16 16:50
UB-5-0.5	1603634-41	Soil	10/16/16 13:00	10/16/16 16:50
UB-6-0.5	1603634-43	Soil	10/16/16 13:15	10/16/16 16:50
UB-6-0.5-DUP	1603634-44	Soil	10/16/16 13:17	10/16/16 16:50
HVAC-3-0.5	1603634-46	Soil	10/16/16 13:30	10/16/16 16:50
HVAC-1-0.5	1603634-48	Soil	10/16/16 13:45	10/16/16 16:50
EB-6-10/16/16	1603634-50	Water	10/16/16 14:30	10/16/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID MB-3-0.5

Lab ID: 1603634-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:10	D1
Lead	15	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:10	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID MB-6-0.5

Lab ID: 1603634-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:11	D1
Lead	41	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:11	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID MB-6-0.5-DUP

Lab ID: 1603634-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:12	D1
Lead	89	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:12	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-653-2-0.5

Lab ID: 1603634-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:13	D1
Lead	23	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:13	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-653-4-0.5

Lab ID: 1603634-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:05	D1
Lead	26	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:05	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-652-1-0.5

Lab ID: 1603634-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:27	
Lead	7.4	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:27	



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-652-4-0.5

Lab ID: 1603634-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:28	
Lead	3.2	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:28	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-652-3-0.5

Lab ID: 1603634-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:29	
Lead	3.4	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:29	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-652-3-0.5-DUP

Lab ID: 1603634-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:30	
Lead	13	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:30	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-652-2-0.5

Lab ID: 1603634-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:31	
Lead	4.8	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:31	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AA-653-3-0.5

Lab ID: 1603634-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:18	D1
Lead	17	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:18	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AUD-1-0.5

Lab ID: 1603634-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:36	
Lead	24	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:36	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID AUD-12-0.5

Lab ID: 1603634-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:19	D1
Lead	25	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:19	D1



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Reported : 10/26/2016

Client Sample ID AUD-2-0.5

Lab ID: 1603634-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:20	D1
Lead	4.4	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:20	D1



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Client Sample ID AUD-2-0.5-DUP

Lab ID: 1603634-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.3	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:06	D1
Lead	29	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:06	D1



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Client Sample ID AUD-3-0.5

Lab ID: 1603634-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:22	D1
Lead	110	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:22	D1



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Client Sample ID AUD-4-0.5

Lab ID: 1603634-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.8	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:23	D1
Lead	390	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:23	D1



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Client Sample ID AUD-5-0.5

Lab ID: 1603634-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0571	10/20/2016	10/21/16 16:10	D1
Lead	620	5.0	0.56	5	B6J0571	10/20/2016	10/21/16 16:10	D1



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Client Sample ID AUD-6-0.5

Lab ID: 1603634-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:52	
Lead	670	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:52	



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Client Sample ID AUD-7-0.5-DUP

Lab ID: 1603634-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:53	
Lead	12	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:53	



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Client Sample ID AUD-7-0.5

Lab ID: 1603634-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:54	
Lead	16	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:54	



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Client Sample ID UB-4-0.5

Lab ID: 1603634-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:55	
Lead	6.9	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:55	



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Client Sample ID UB-5-0.5

Lab ID: 1603634-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.7	5.0	3.5	5	B6J0571	10/20/2016	10/21/16 16:11	D1
Lead	9.8	5.0	0.56	5	B6J0571	10/20/2016	10/21/16 16:11	D1



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Report To : John Nordenstam
Reported : 10/26/2016

Client Sample ID UB-6-0.5

Lab ID: 1603634-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:57	
Lead	6.1	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:57	



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Client Sample ID UB-6-0.5-DUP

Lab ID: 1603634-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:58	
Lead	5.9	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:58	



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Client Sample ID HVAC-3-0.5

Lab ID: 1603634-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 13:00	
Lead	8.5	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 13:00	



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Client Sample ID HVAC-1-0.5

Lab ID: 1603634-48

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 13:03	
Lead	3.7	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 13:03	



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Client Sample ID EB-6-10/16/16

Lab ID: 1603634-50

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:57	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:57	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:57	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:57	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:57	
Surrogate: Decachlorobiphenyl	51.5 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:57	
Surrogate: Tetrachloro-m-xylene	71.9 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:57	



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Client Sample ID EB-6-10/16/16

Lab ID: 1603634-50

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
<i>Surrogate: Decachlorobiphenyl</i>	<i>57.9 %</i>		<i>7 - 127</i>		B6J0485	10/17/2016	<i>10/17/16 17:15</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>81.6 %</i>		<i>14 - 122</i>		B6J0485	10/17/2016	<i>10/17/16 17:15</i>	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0570 - EPA 3050B_S									
Blank (B6J0570-BLK1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0570-BS1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	55.5910	1.0	50.0000		111	80 - 120			
Lead	55.3676	1.0	50.0000		111	80 - 120			
Duplicate (B6J0570-DUP1)				Source: 1603633-38 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	7.80509	5.0		5.91037	NR		27.6	20	R
Lead	8.58144	5.0		8.58833	NR		0.0803	20	
Matrix Spike (B6J0570-MS1)				Source: 1603633-38 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	118.270	2.0	125.000	5.91037	89.9	59 - 103			
Lead	117.146	2.0	125.000	8.58833	86.8	34 - 129			
Matrix Spike Dup (B6J0570-MSD1)				Source: 1603633-38 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	113.652	2.0	125.000	5.91037	86.2	59 - 103	3.98	20	
Lead	115.624	2.0	125.000	8.58833	85.6	34 - 129	1.31	20	



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Report To : John Nordenstam
Reported : 10/26/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0571 - EPA 3050B_S

Blank (B6J0571-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0571-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	50.0718	1.0	50.0000		100	80 - 120			
Lead	50.5268	1.0	50.0000		101	80 - 120			

Duplicate (B6J0571-DUP1)

Source: 1603634-32

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	3.01173	1.0		3.07839	NR			20	
Lead	592.567	1.0		615.653	NR		3.82	20	

Matrix Spike (B6J0571-MS1)

Source: 1603634-32

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	115.746	1.0	125.000	3.07839	90.1	59 - 103			
Lead	702.488	1.0	125.000	615.653	69.5	34 - 129			

Matrix Spike Dup (B6J0571-MSD1)

Source: 1603634-32

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	109.197	1.0	125.000	3.07839	84.9	59 - 103	5.82	20	
Lead	669.652	1.0	125.000	615.653	43.2	34 - 129	4.79	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99			
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99			
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93			
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93			
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98			
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98			
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141			
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141			
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3766</i>		<i>0.500000</i>		<i>75.3</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3709</i>		<i>0.500000</i>		<i>74.2</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4193</i>		<i>0.500000</i>		<i>83.9</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4522</i>		<i>0.500000</i>		<i>90.4</i>	<i>14 - 122</i>			

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20	
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20	
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20	
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20	
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20	
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20	
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20	
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20	
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20	
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20	
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20	
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20	
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20	
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20	
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20	
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20	
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20	
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20	
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20	
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20	
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20	
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20	
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20	
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20	
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20	
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20	
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
Surrogate: Decachlorobiphenyl	0.3734		0.500000		74.7	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3662		0.500000		73.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4183		0.500000		83.7	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4519		0.500000		90.4	14 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 10/26/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3834 0.500000 76.7 7 - 127
0.4914 0.500000 98.3 14 - 122

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3873 0.500000 77.5 7 - 127
0.5015 0.500000 100 14 - 122

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3735 0.500000 74.7 7 - 127
0.4908 0.500000 98.2 14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 10/26/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY
LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 1 of 5

Instruction: Complete all shaded areas.

Method of Transport		For Laboratory Use Only						ATLCOG Ver.: 20130715	
		Sample Conditions Upon Receipt							
		Condition		Y	N	Condition		Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED				5. # of SAMPLES MATCH COC		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (V3A)				6. PRESERVED		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT				7. COOLER TEMP. deg. C			
<input type="checkbox"/> Other: _____		4. SEALED							

Company: TRC Solutions Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
City: Irvine		State: CA		Fax: 949-327-7311	
Zip: 92618		SEND INVOICE TO:			
Attn: John Nordenstam		Email: jnordenstam@trcsolutions.com		Attn:	
Company: TRC Solutions Inc		Company:		Email:	
SEND REPORT TO:					

Address: IRCSOLUTIONS INC		Address:	
City: Irvine		City:	Zip:
State: CA	Zip: 92618		

Project Name: LAUSD - Roosevelt HS		Quote No:		Special Instructions/Comments:	
Project No.: 205642.000/TAOL		PO #:			
Sampler: Warren Howe					
ITEM	Lab No.	Sample Description		Date	Time
		Sample ID / Location			
1	1603634-01	MB-3-0.5		10-16-16	0750
2		-02 MB-3-2.5		10-16-16	0800
3		-03 MB-6-0.5		10-16-16	0810
4		-04 MB-6-0.5-DUP		10-16-16	0815
5		-05 MB-6-2.5		10-16-16	0820
6		-06 AA-653-2-0.5		10-16-16	0830
7		-07 AA-653-2-2.5		10-16-16	0840
8		-08 AA-65340.5		10-16-16	0833
9		-09 AA-653-4-2.5		10-16-16	0845
10		-10 AA-652-1-0.5		10-16-16	0847

Samples will be disposed of after 14 calendar days after receipt of samples.

7. Electronic records maintained for five (5) years from report date.

8. Samples not disposed of after 45 calendar days from report date.

9. Storage and Report Fees:

 • Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.

 • Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested.

 • Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per reprocessed EDO.

10. Rush TCU/STLC samples: add 2 days to analysis TAT for extraction on procedure.

11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Samples submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.

The following turnaround time conditions apply:

 • TAT = 1: 100% SurchARGE, NEXT BUSINESS DAY (COB 5:00 PM)

 • TAT = 2: 50% SurchARGE, NEXT BUSINESS DAY (COB 5:00 PM)

 • TAT = 3: 30% SurchARGE, 3RD BUSINESS DAY (COB 5:00 PM)

 • TAT = 4: 20% SurchARGE, 4TH BUSINESS DAY (COB 5:00 PM)

 • TAT = 5: NO SurchARGE, 5TH BUSINESS DAY (COB 5:00 PM)

Weekend, holiday, after-hours work - ask for quote.

Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge

Unanalyzed samples will be disposed of after 14 calendar days from receipt of samples; air

Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS SURRENCY

Submitter Print Name

Pho. Surrency

Signature

Relinquished by: (Signature and Printed Name)	Warren Howe	Date:	10/16/16	Time:	1500
Relinquished by: (Signature and Printed Name)	Roz Suweny	Date:	10/16/16	Time:	1650
Relinquished by: (Signature and Printed Name)		Date:		Time:	
Received by: (Signature and Printed Name)	Roz Suweny	Date:	10/16/16	Time:	1500
Received by: (Signature and Printed Name)	Roz Suweny	Date:	10/16/16	Time:	1650
Received by: (Signature and Printed Name)	Roz Suweny	Date:	10/16/16	Time:	1650

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> Other:		<input type="checkbox"/> Y	<input type="checkbox"/> N

Company: TRC Solutions Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
City: Irvine		State: CA		Zip: 92618	
Attn: John Nardenstam		Email: jnardenstam@trcsolutions.com		Fax: 949-727-7311	
Company: TRC Solutions Inc		Address:		SEND INVOICE TO:	
Address: 9685 Research Drive		City: Irvine		State: CA	
City: Irvine		State: CA		Zip: 92618	

Project Name: LAUSD-Roosevelt HS		Quote No: E161131		Special Instructions/Comments:	
Project No: 265642/TA02		PO #: 100816			
Sampler: Warren Howe					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603634-11	AA-652-1-2.5		10-16-16	0850
2	1603634-12	AA-652-4-0.5		10-16-16	0855
3	1603634-13	AA-652-4-2.5		10-16-16	0859
4	1603634-14	AA-652-3-0.5		10-16-16	0909
5	1603634-15	AA-652-3-0.5-DUP		10-16-16	0911
6	1603634-16	AA-652-3-2.5		10-16-16	0920
7	1603634-17	AA-652-2-0.5		10-16-16	0930
8	1603634-18	AA-652-2-2.5		10-16-16	0940
9	1603634-19	AA-653-3-0.5		10-16-16	0950
10	1603634-20	AA-653-3-2.5		10-16-16	10:00

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Signature: Ross Surrency	Signature: Ross Surrency
Submitter Print Name: Ross Surrency	Signature: Ross Surrency

Relinquished by: (Signature and Printed Name) Warren Howe	Date: 10/16/16	Time: 1500
Relinquished by: (Signature and Printed Name) Ross Surrency	Date: 10/16/16	Time: 1650
Relinquished by: (Signature and Printed Name) Edward Pachiguz	Date: 10/16/16	Time: 1650

CHAIN OF CUSTODY RECORD

Page 4 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCC Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt			
Client	Condition	Y	N	Y	N
<input type="checkbox"/> ATL	<input checked="" type="checkbox"/> 1. CHILLED				
<input type="checkbox"/> FedEx	<input type="checkbox"/> 2. HEADSPACE (V.O.A)				
<input type="checkbox"/> GSO	<input type="checkbox"/> 3. CONTAINER IN CONTACT				
<input type="checkbox"/> Other:	<input type="checkbox"/> 4. SEALED				

1. CHILLED
2. HEADSPACE (V.O.A)
3. CONTAINER IN CONTACT
4. SEALED

Company: **TRC Solutions Inc** Address: **9680 Research Drive** Tel: **949-341-7467**
City: **Irvine CA** State: **CA** Zip: **92618** Fax: **949-727-7311**
Attn: **Jahn Wardenstam jwardenstam@trcsolutions.com** Email: **SEND INVOICE TO:**
Company: **TRC Solutions Inc** Address: **9685 Research Drive** City: **Irvine CA** State: **CA** Zip: **92618**

Project Name: **LAUSD - Rooserelt HS** Quote No: **EL6131**
Project No.: **265642-0000/TA02** PO #: **100816**
Sampler: **WARDEN HOWE**

ITEM	Lab No.	Sample Description		Date	Time
		Sample ID / Location			
1	1603634-31	AUD-4-2.5		10-16-16	1140
2	32	AUD-5-0.5		10-16-16	1150
3	33	AUD-5-2.0.5		10-16-16	1200
4	34	AUD-6-0.5		10-16-16	1205
5	35	AUD-6-2.5		10-16-16	1210
6	36	AUD-7-0.5-DUP		10-16-16	1220
7	37	AUD-7-0.5		10-16-16	1225
8	38	AUD-7-2.0.5		10-16-16	1230
9	39	AUD-UB-4-0.5		10-16-16	1240
10	40	UB-4-2.5		10-16-16	1250

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted After 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following surcharges apply to samples received after 3:00 PM:
TAT = 1: 100% Surcharges NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharges NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 3: 30% Surcharges 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharges 4TH BUSINESS DAY (COB 5:00 PM)
4. Weekend holiday after-hours work - ask for quote.
5. Subcontract to the subcontract lab - ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested.
- Regenerators: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated report/EDD report; \$35 per regenerated EDD.
10. Rush TAT/STIC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Relinquished by: (Signature and Printed Name) **WARDEN HOWE** Date: **10/16/16** Time: **1500**
Relinquished by: (Signature and Printed Name) **Doss Duvey** Date: **10/16/16** Time: **1650**
Relinquished by: (Signature and Printed Name) **Doss Duvey** Date: **10/16/16** Time: **1650**

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS SURGENCY Signature: **Doss Duvey**
Submitter Print Name: _____

Relinquished by: (Signature and Printed Name) **Doss Duvey** Date: **10/16/16** Time: **1500**
Relinquished by: (Signature and Printed Name) **Doss Duvey** Date: **10/16/16** Time: **1650**
Relinquished by: (Signature and Printed Name) **Doss Duvey** Date: **10/16/16** Time: **1650**

CHAIN OF CUSTODY RECORD

Page 5 of 5

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> 6. PRESERVED	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> Other:	<input type="checkbox"/> 7. COOLER TEMP. deg. C:	<input type="checkbox"/> Y	<input type="checkbox"/> N
	<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> Y	<input type="checkbox"/> N

Company:	TRC Solutions Inc	Address:	9685 Research Drive	City:	Irvine	State:	CA	Zip:	92618
Attn:	John Norderstam	Email:	jnorderstam@trcsolutions.com						
Company:	TRC Solutions Inc								
Address:	9685 Research Drive								
City:	Irvine								

Project Name:		Quote No.:	Special Instructions/Comments:	
LAUSD-Roosevelt HS		E16I131		
Project No.:	265642000/TA02	PO #:		
Sampler:	Warren Howe	100816		
ITEM	Lab No.	Sample ID / Location	Date	Time
1	1603634-41	UB-5-0.5	10-16-16	1300
2		42UB-5-2.5	10-16-16	1310
3		43UB-6-0.5	10-16-16	1315
4		44UB-6-0.5-DUP	10-16-16	1317
5		45UB-6-2.5	10-16-16	1325
6		46HVAC-3-0.5	10-16-16	1330
7		47HVAC-3-2.5	10-16-16	1340
8		48HVAC-2-0.5	10-16-16	1345
9		49HVAC-1-2.5	10-16-16	1355
10		50EB-6-10/16/16	10-16-16	1430

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Submitter Print Name	Signature
ROSS SURENCY	Bob Surency
Date: 10/16/16	Time: 1500
Received by: (Signature and Printed Name)	Received by: (Signature and Printed Name)
Warren Howe	Bob Surency
Date: 10/16/16	Time: 1650
Relinquished by: (Signature and Printed Name)	Relinquished by: (Signature and Printed Name)
Warren Howe	Bob Surency
Date: 10/16/16	Time: 1650

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Thursday, October 20, 2016 12:57 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Rachelle Arada
Subject: RE: LAUSD-Roosevelt HS, 265642.0000 / TA02
Attachments: DOC102016.pdf

Carmen – Yes, all the samples marked with an “X” on page 4 of 5 on the COC are to be analyzed for As and Pb using EPA Method 6010B. Attached is a copy of the corrected COC.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Thursday, October 20, 2016 12:29 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Rachelle Arada <Rachelle@atlglobal.com>
Subject: LAUSD-Roosevelt HS, 265642.0000 / TA02

Hi John,

We would like to confirm that all the samples marked with an “X” on page 4 of 5 on the attached CoC are to be analyze for 6010 Pb, As. The test is not indicated on the CoC.

Thank you,

Carmen Aguila
Sample Control



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 245
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

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CHAIN OF CUSTODY RECORD

Page 4 of 5

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Company:

TRC Solutions Inc

SEND REPORT TO:

Attn: John Wardenham jwardenham@trcsolutions.com

Company: TRC Solutions Inc

Address: 9685 Research Drive

City: Irvine

State: CA

Zip: 92618

Address: 9680 Research Drive

City: Irvine CA

State:

Zip: 92618

Tel: 949-341-7467

Fax: 949-727-7311

SEND INVOICE TO: Email:

Company:

Address:

City:

State:

Zip:

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. OIL/SLUR	<input type="checkbox"/> 2. E OF SAMPLES MATCH CODE
<input type="checkbox"/> UPS	<input type="checkbox"/> Other	<input type="checkbox"/> 3. HEADSPACE (L/D)	<input type="checkbox"/> 4. PRESERVED
		<input type="checkbox"/> 5. CONTAINER INTACT	<input type="checkbox"/> 6. COOLING TEMP LOG C
		<input type="checkbox"/> 7. SEALED	<input type="checkbox"/> 8. OTHER

CUSTOMER

Special Instructions/Comments:

Project Name: LAUSD - Roosevelt HS

Quote No: E16 I131

Project No: 265642-0000/TA02

PO #: 100816

Sampler: WARDEN HOWE

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603634-31	AUD-4-2.5		10-16-16	1140
2	32	AUD-5-0.5		10-16-16	1150
3	33	AUD-5-2.0.5		10-16-16	1200
4	34	AUD-6-0.5		10-16-16	1205
5	35	AUD-6-2.0.5		10-16-16	1210
6	36	AUD-7-0.5-DUP		10-16-16	1220
7	37	AUD-7-0.5		10-16-16	1225
8	38	AUD-7-2.0.5		10-16-16	1230
9	39	AUD-UB-4-0.5		10-16-16	1240
10	40	UB-4-2.0.5		10-16-16	1250

PROJECT SAMPLES

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM
2. The following turnaround times are considered received the following business day at 8:00 AM:
 - IAH - 0 - 100% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
 - IAH - 1 - 100% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
 - IAH - 2 - 100% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
 - IAH - 3 - 100% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
 - IAH - 4 - 200% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
 - IAH - 5 - 300% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
3. Weekend, holiday, after hours work - ask for quote.
4. Samples received in 10 - 12 business days. Projects requiring shorter TATs will incur a surcharge.
5. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples, or requested.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples, or requested.
7. Electronic records maintained for 15 years from report date.
8. Storage and Report Fees:
 - Liquid & solid samples: Complimentary storage for 10 calendar days from receipt of samples. \$2/sample/month if extended storage is requested.
 - Air samples: Complimentary storage for 10 calendar days from receipt of samples. \$2/sample/month if extended storage is requested.
9. Hard copy and digitized reports/EDDs: \$11.50 per hard copy report requested. \$50.00 per regenerated/reformat 2nd report.
10. Much TAT/STIC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$2 per sample.

TERMS

Relinquished by: (Signature and Printed Name)

Warden Howe

Date:

10/16/16

Time:

15:00

Received by: (Signature and Printed Name)

Proz Durey

Date:

10/16/16

Time:

15:00

CUSTODY

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: Ross S. BRENCEY

Signature: Proz Durey

Date: 10/16/16

Time: 15:00

Relinquished by: (Signature and Printed Name)

Proz Durey

Date:

10/16/16

Time:

15:00

CUSTODY



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603634

Client Reference : LAUSD-Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 16, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MB-3-0.5	1603634-01	Soil	10/16/16 7:50	10/16/16 16:50
MB-3-2.5	1603634-02	Soil	10/16/16 8:00	10/16/16 16:50
MB-6-0.5	1603634-03	Soil	10/16/16 8:10	10/16/16 16:50
MB-6-0.5-DUP	1603634-04	Soil	10/16/16 8:15	10/16/16 16:50
MB-6-2.5	1603634-05	Soil	10/16/16 8:20	10/16/16 16:50
AA-653-2-0.5	1603634-06	Soil	10/16/16 8:30	10/16/16 16:50
AA-653-2-2.5	1603634-07	Soil	10/16/16 8:40	10/16/16 16:50
AA-653-4-0.5	1603634-08	Soil	10/16/16 8:33	10/16/16 16:50
AA-653-4-2.5	1603634-09	Soil	10/16/16 8:45	10/16/16 16:50
AA-652-1-0.5	1603634-10	Soil	10/16/16 8:47	10/16/16 16:50
AA-652-1-2.5	1603634-11	Soil	10/16/16 8:50	10/16/16 16:50
AA-652-4-0.5	1603634-12	Soil	10/16/16 8:55	10/16/16 16:50
AA-652-4-2.5	1603634-13	Soil	10/16/16 8:59	10/16/16 16:50
AA-652-3-0.5	1603634-14	Soil	10/16/16 9:09	10/16/16 16:50
AA-652-3-0.5-DUP	1603634-15	Soil	10/16/16 9:11	10/16/16 16:50
AA-652-3-2.5	1603634-16	Soil	10/16/16 9:20	10/16/16 16:50
AA-652-2-0.5	1603634-17	Soil	10/16/16 9:30	10/16/16 16:50
AA-652-2-2.5	1603634-18	Soil	10/16/16 9:40	10/16/16 16:50
AA-653-3-0.5	1603634-19	Soil	10/16/16 9:50	10/16/16 16:50
AA-653-3-2.5	1603634-20	Soil	10/16/16 10:00	10/16/16 16:50
AUD-1-0.5	1603634-21	Soil	10/16/16 10:10	10/16/16 16:50
AUD-1-2.5	1603634-22	Soil	10/16/16 10:20	10/16/16 16:50
AUD-12-0.5	1603634-23	Soil	10/16/16 10:25	10/16/16 16:50
AUD-12-2.5	1603634-24	Soil	10/16/16 10:35	10/16/16 16:50
AUD-2-0.5	1603634-25	Soil	10/16/16 10:45	10/16/16 16:50
AUD-2-0.5-DUP	1603634-26	Soil	10/16/16 10:50	10/16/16 16:50
AUD-2-2.5	1603634-27	Soil	10/16/16 11:00	10/16/16 16:50
AUD-3-0.5	1603634-28	Soil	10/16/16 11:10	10/16/16 16:50
AUD-3-2.5	1603634-29	Soil	10/16/16 11:20	10/16/16 16:50
AUD-4-0.5	1603634-30	Soil	10/16/16 11:30	10/16/16 16:50
AUD-4-2.5	1603634-31	Soil	10/16/16 11:40	10/16/16 16:50
AUD-5-0.5	1603634-32	Soil	10/16/16 11:50	10/16/16 16:50
AUD-5-2.5	1603634-33	Soil	10/16/16 12:00	10/16/16 16:50
AUD-6-0.5	1603634-34	Soil	10/16/16 12:05	10/16/16 16:50
AUD-6-2.5	1603634-35	Soil	10/16/16 12:10	10/16/16 16:50
AUD-7-0.5-DUP	1603634-36	Soil	10/16/16 12:20	10/16/16 16:50
AUD-7-0.5	1603634-37	Soil	10/16/16 12:25	10/16/16 16:50



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

AUD-7-2.5	1603634-38	Soil	10/16/16 12:30	10/16/16 16:50
UB-4-0.5	1603634-39	Soil	10/16/16 12:40	10/16/16 16:50
UB-4-2.5	1603634-40	Soil	10/16/16 12:50	10/16/16 16:50
UB-5-0.5	1603634-41	Soil	10/16/16 13:00	10/16/16 16:50
UB-5-2.5	1603634-42	Soil	10/16/16 13:10	10/16/16 16:50
UB-6-0.5	1603634-43	Soil	10/16/16 13:15	10/16/16 16:50
UB-6-0.5-DUP	1603634-44	Soil	10/16/16 13:17	10/16/16 16:50
UB-6-2.5	1603634-45	Soil	10/16/16 13:25	10/16/16 16:50
HVAC-3-0.5	1603634-46	Soil	10/16/16 13:30	10/16/16 16:50
HVAC-3-2.5	1603634-47	Soil	10/16/16 13:40	10/16/16 16:50
HVAC-1-0.5	1603634-48	Soil	10/16/16 13:45	10/16/16 16:50
HVAC-1-2.5	1603634-49	Soil	10/16/16 13:55	10/16/16 16:50
EB-6-10/16/16	1603634-50	Water	10/16/16 14:30	10/16/16 16:50
AA-653-3-2.5 Duplicate	1603634-51	Soil	10/16/16 10:00	10/16/16 16:50
UB-5-2.5 Duplicate	1603634-52	Soil	10/16/16 13:10	10/16/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID MB-3-0.5

Lab ID: 1603634-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:10	D1
Lead	15	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:10	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID MB-3-2.5

Lab ID: 1603634-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:19	
Lead	7.2	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:19	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID MB-6-0.5

Lab ID: 1603634-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:11	D1
Lead	41	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:11	D1



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID MB-6-0.5-DUP

Lab ID: 1603634-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:12	D1
Lead	89	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:12	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.5	1.0	0.057	20	B6K0078	11/02/2016	11/02/16 17:11	



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Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID MB-6-2.5

Lab ID: 1603634-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:25	
Lead	27	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:25	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-653-2-0.5

Lab ID: 1603634-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:13	D1
Lead	23	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:13	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-653-2-2.5

Lab ID: 1603634-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:26	
Lead	4.7	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:26	



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TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-653-4-0.5

Lab ID: 1603634-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:05	D1
Lead	26	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:05	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-653-4-2.5

Lab ID: 1603634-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:28	
Lead	17	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:28	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-652-1-0.5

Lab ID: 1603634-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:27	
Lead	7.4	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:27	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-652-1-2.5

Lab ID: 1603634-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:29	
Lead	6.2	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:29	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-652-4-0.5

Lab ID: 1603634-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:28	
Lead	3.2	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:28	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-652-4-2.5

Lab ID: 1603634-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:30	
Lead	4.0	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:30	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-652-3-0.5

Lab ID: 1603634-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:29	
Lead	3.4	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:29	



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Report To : John Nordenstam
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Client Sample ID AA-652-3-0.5-DUP

Lab ID: 1603634-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:30	
Lead	13	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:30	



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Report To : John Nordenstam
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Client Sample ID AA-652-3-2.5

Lab ID: 1603634-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:31	
Lead	8.3	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:31	



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Client Sample ID AA-652-2-0.5

Lab ID: 1603634-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:31	
Lead	4.8	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:31	



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Client Sample ID AA-652-2-2.5

Lab ID: 1603634-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:32	
Lead	4.9	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:32	



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Client Sample ID AA-653-3-0.5

Lab ID: 1603634-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:18	D1
Lead	17	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:18	D1



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Client Sample ID AA-653-3-2.5

Lab ID: 1603634-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:35	
Lead	13	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:35	



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Report To : John Nordenstam
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Client Sample ID AUD-1-0.5

Lab ID: 1603634-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0570	10/20/2016	10/21/16 12:36	
Lead	24	1.0	0.11	1	B6J0570	10/20/2016	10/21/16 12:36	



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Client Sample ID AUD-1-2.5

Lab ID: 1603634-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.98	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:37	J
Lead	5.1	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:37	



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Client Sample ID AUD-12-0.5

Lab ID: 1603634-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:19	D1
Lead	25	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:19	D1



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Client Sample ID AUD-12-2.5

Lab ID: 1603634-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:38	
Lead	8.1	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:38	



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Client Sample ID AUD-2-0.5

Lab ID: 1603634-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:20	D1
Lead	4.4	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:20	D1



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Client Sample ID AUD-2-0.5-DUP

Lab ID: 1603634-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.3	5.0	3.5	5	B6J0570	10/20/2016	10/21/16 16:06	D1
Lead	29	5.0	0.56	5	B6J0570	10/20/2016	10/21/16 16:06	D1



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Client Sample ID AUD-2-2.5

Lab ID: 1603634-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:39	
Lead	10	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:39	



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Report To : John Nordenstam
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Client Sample ID AUD-3-0.5

Lab ID: 1603634-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:22	D1
Lead	110	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:22	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.4	1.0	0.057	20	B6K0078	11/02/2016	11/02/16 17:15	



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Client Sample ID AUD-3-2.5

Lab ID: 1603634-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:40	
Lead	8.5	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:40	



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Client Sample ID AUD-4-0.5

Lab ID: 1603634-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.8	2.0	1.4	2	B6J0570	10/20/2016	10/21/16 14:23	D1
Lead	390	2.0	0.22	2	B6J0570	10/20/2016	10/21/16 14:23	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	29	1.0	0.057	20	B6K0078	11/02/2016	11/02/16 17:18	



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Client Sample ID AUD-4-2.5

Lab ID: 1603634-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:41	
Lead	12	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:41	



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Client Sample ID AUD-5-0.5

Lab ID: 1603634-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	3.5	5	B6J0571	10/20/2016	10/21/16 16:10	D1
Lead	620	5.0	0.56	5	B6J0571	10/20/2016	10/21/16 16:10	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	24	1.0	0.057	20	B6K0078	11/02/2016	11/02/16 17:29	



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Client Sample ID AUD-5-2.5

Lab ID: 1603634-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:42	
Lead	43	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:42	



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Client Sample ID AUD-6-0.5

Lab ID: 1603634-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:52	
Lead	670	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:52	

STLC Metals by ICP-AES by EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	26	1.0	0.057	20	B6K0078	11/02/2016	11/02/16 17:33	



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Client Sample ID AUD-6-2.5

Lab ID: 1603634-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:43	
Lead	19	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:43	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AUD-7-0.5-DUP

Lab ID: 1603634-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:53	
Lead	12	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:53	



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Client Sample ID AUD-7-0.5

Lab ID: 1603634-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:54	
Lead	16	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:54	



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Client Sample ID AUD-7-2.5

Lab ID: 1603634-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:44	
Lead	12	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:44	



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Client Sample ID UB-4-0.5

Lab ID: 1603634-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:55	
Lead	6.9	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:55	



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Client Sample ID UB-4-2.5

Lab ID: 1603634-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:45	
Lead	5.0	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:45	



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Reported : 11/08/2016

Client Sample ID UB-5-0.5

Lab ID: 1603634-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.7	5.0	3.5	5	B6J0571	10/20/2016	10/21/16 16:11	D1
Lead	9.8	5.0	0.56	5	B6J0571	10/20/2016	10/21/16 16:11	D1



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID UB-5-2.5

Lab ID: 1603634-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0042	11/02/2016	11/03/16 13:49	
Lead	2.6	1.0	0.11	1	B6K0042	11/02/2016	11/03/16 13:49	



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Client Sample ID UB-6-0.5

Lab ID: 1603634-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:57	
Lead	6.1	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:57	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID UB-6-0.5-DUP

Lab ID: 1603634-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 12:58	
Lead	5.9	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 12:58	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
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Client Sample ID UB-6-2.5

Lab ID: 1603634-45

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 13:53	
Lead	3.4	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 13:53	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID HVAC-3-0.5

Lab ID: 1603634-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 13:00	
Lead	8.5	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 13:00	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID HVAC-3-2.5

Lab ID: 1603634-47

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 13:57	
Lead	6.8	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 13:57	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID HVAC-1-0.5

Lab ID: 1603634-48

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6J0571	10/20/2016	10/21/16 13:03	
Lead	3.7	1.0	0.11	1	B6J0571	10/20/2016	10/21/16 13:03	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID HVAC-1-2.5

Lab ID: 1603634-49

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 13:58	
Lead	2.7	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 13:58	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID EB-6-10/16/16

Lab ID: 1603634-50

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0615	10/21/2016	10/21/16 15:57	
Lead	ND	0.0050	0.0028	1	B6J0615	10/21/2016	10/21/16 15:57	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
4,4'-DDE	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
4,4'-DDT	ND	0.05	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
Aldrin	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
alpha-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
alpha-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
beta-BHC	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Chlordane	ND	0.25	0.03	1	B6J0485	10/17/2016	10/18/16 13:57	
delta-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
Dieldrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endosulfan I	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endosulfan II	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endrin	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Endrin aldehyde	ND	0.05	0.006	1	B6J0485	10/17/2016	10/18/16 13:57	
Endrin ketone	ND	0.05	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
gamma-BHC	ND	0.02	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
gamma-Chlordane	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Heptachlor	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0485	10/17/2016	10/18/16 13:57	
Methoxychlor	ND	0.25	0.004	1	B6J0485	10/17/2016	10/18/16 13:57	
Toxaphene	ND	2.5	0.23	1	B6J0485	10/17/2016	10/18/16 13:57	
Surrogate: Decachlorobiphenyl	51.5 %		7 - 127		B6J0485	10/17/2016	10/18/16 13:57	
Surrogate: Tetrachloro-m-xylene	71.9 %		14 - 122		B6J0485	10/17/2016	10/18/16 13:57	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID EB-6-10/16/16

Lab ID: 1603634-50

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1221	ND	1.0	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1232	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1242	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1248	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1254	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1260	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1262	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
Aroclor 1268	ND	0.50	0.06	1	B6J0485	10/17/2016	10/17/16 17:15	
<i>Surrogate: Decachlorobiphenyl</i>	<i>57.9 %</i>		<i>7 - 127</i>		B6J0485	10/17/2016	<i>10/17/16 17:15</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>81.6 %</i>		<i>14 - 122</i>		B6J0485	10/17/2016	<i>10/17/16 17:15</i>	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-653-3-2.5 Duplicate
Lab ID: 1603634-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 14:07	
Lead	9.8	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 14:07	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
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Reported : 11/08/2016

Client Sample ID UB-5-2.5 Duplicate
Lab ID: 1603634-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 14:10	
Lead	2.4	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 14:10	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0570 - EPA 3050B_S									
Blank (B6J0570-BLK1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6J0570-BS1)				Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	55.5910	1.0	50.0000		111	80 - 120			
Lead	55.3676	1.0	50.0000		111	80 - 120			
Duplicate (B6J0570-DUP1)				Source: 1603633-38 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	7.80509	5.0		5.91037	NR		27.6	20	R
Lead	8.58144	5.0		8.58833	NR		0.0803	20	
Matrix Spike (B6J0570-MS1)				Source: 1603633-38 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	118.270	2.0	125.000	5.91037	89.9	59 - 103			
Lead	117.146	2.0	125.000	8.58833	86.8	34 - 129			
Matrix Spike Dup (B6J0570-MSD1)				Source: 1603633-38 Prepared: 10/20/2016 Analyzed: 10/21/2016					
Arsenic	113.652	2.0	125.000	5.91037	86.2	59 - 103	3.98	20	
Lead	115.624	2.0	125.000	8.58833	85.6	34 - 129	1.31	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0571 - EPA 3050B_S

Blank (B6J0571-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0571-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	50.0718	1.0	50.0000		100	80 - 120			
Lead	50.5268	1.0	50.0000		101	80 - 120			

Duplicate (B6J0571-DUP1)

Source: 1603634-32

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	3.01173	1.0		3.07839	NR			20	
Lead	592.567	1.0		615.653	NR		3.82	20	

Matrix Spike (B6J0571-MS1)

Source: 1603634-32

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	115.746	1.0	125.000	3.07839	90.1	59 - 103			
Lead	702.488	1.0	125.000	615.653	69.5	34 - 129			

Matrix Spike Dup (B6J0571-MSD1)

Source: 1603634-32

Prepared: 10/20/2016 Analyzed: 10/21/2016

Arsenic	109.197	1.0	125.000	3.07839	84.9	59 - 103	5.82	20	
Lead	669.652	1.0	125.000	615.653	43.2	34 - 129	4.79	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0615 - EPA 3010A_W

Blank (B6J0615-BLK1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0615-BS1)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	0.929153	0.010	1.00000		92.9	80 - 120			
Lead	0.968659	0.0050	1.00000		96.9	80 - 120			

Duplicate (B6J0615-DUP1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0615-MS1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.26347	0.010	2.50000	ND	90.5	74 - 123			
Lead	2.34875	0.0050	2.50000	ND	94.0	78 - 109			

Matrix Spike Dup (B6J0615-MSD1)

Source: 1603631-25

Prepared: 10/21/2016 Analyzed: 10/21/2016

Arsenic	2.33806	0.010	2.50000	ND	93.5	74 - 123	3.24	20	
Lead	2.43047	0.0050	2.50000	ND	97.2	78 - 109	3.42	20	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0042 - EPA 3050B_S

Blank (B6K0042-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0042-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	46.6813	1.0	50.0000		93.4	80 - 120			
Lead	49.6842	1.0	50.0000		99.4	80 - 120			

Duplicate (B6K0042-DUP1)

Source: 1603634-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	2.82832	1.0		3.10660	NR		9.38	20	
Lead	7.35310	1.0		7.22540	NR		1.75	20	

Matrix Spike (B6K0042-MS1)

Source: 1603634-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	95.0148	1.0	125.000	3.10660	73.5	59 - 103			
Lead	98.8464	1.0	125.000	7.22540	73.3	34 - 129			

Matrix Spike Dup (B6K0042-MSD1)

Source: 1603634-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	97.1532	1.0	125.000	3.10660	75.2	59 - 103	2.23	20	
Lead	101.086	1.0	125.000	7.22540	75.1	34 - 129	2.24	20	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0043 - EPA 3050B_S

Blank (B6K0043-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0043-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	44.8666	1.0	50.0000		89.7	80 - 120			
Lead	47.2677	1.0	50.0000		94.5	80 - 120			

Duplicate (B6K0043-DUP1)

Source: 1603634-45

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	1.86134	1.0		2.01360	NR		7.86	20	
Lead	3.32168	1.0		3.44296	NR		3.59	20	

Matrix Spike (B6K0043-MS1)

Source: 1603634-45

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	102.284	1.0	125.000	2.01360	80.2	59 - 103			
Lead	105.913	1.0	125.000	3.44296	82.0	34 - 129			

Matrix Spike Dup (B6K0043-MSD1)

Source: 1603634-45

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	99.7378	1.0	125.000	2.01360	78.2	59 - 103	2.52	20	
Lead	103.178	1.0	125.000	3.44296	79.8	34 - 129	2.62	20	



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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



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STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0078 - STLC_S Extraction

Blank (B6K0078-BLK1)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	ND	1.0			NR				
Blank (B6K0078-BLK2)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	ND	1.0			NR				
LCS (B6K0078-BS1)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	2.04818		2.00000		102	80 - 120			
Duplicate (B6K0078-DUP1)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	0.087358	1.0		0.106500	NR		19.7	20	J
Duplicate (B6K0078-DUP2)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	0.251146	1.0		0.261933	NR		4.20	20	J
Matrix Spike (B6K0078-MS1)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	2.44734		2.50000	0.106500	93.6	44 - 130			
Matrix Spike (B6K0078-MS2)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	2.62799		2.50000	0.261933	94.6	44 - 130			
Matrix Spike Dup (B6K0078-MSD1)				Prepared: 11/2/2016 Analyzed: 11/2/2016					
Lead	2.37659		2.50000	0.106500	90.8	44 - 130	2.93	20	



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



Certificate of Analysis

TRC
9685 Research Drive
Irvine, CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0485-BLK1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3408		0.500000		68.2	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3470		0.500000		69.4	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4089		0.500000		81.8	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4317		0.500000		86.3	14 - 122		

LCS (B6J0485-BS1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.411815	0.05	0.500000		82.4	59 - 109		
4,4'-DDD [2C]	0.404300	0.05	0.500000		80.9	59 - 109		
4,4'-DDE	0.415820	0.05	0.500000		83.2	63 - 101		
4,4'-DDE [2C]	0.408315	0.05	0.500000		81.7	63 - 101		
4,4'-DDT	0.356265	0.05	0.500000		71.3	36 - 96		
4,4'-DDT [2C]	0.343845	0.05	0.500000		68.8	36 - 96		
Aldrin	0.422165	0.02	0.500000		84.4	64 - 96		
Aldrin [2C]	0.423670	0.02	0.500000		84.7	64 - 96		
alpha-BHC	0.417760	0.02	0.500000		83.6	63 - 92		
alpha-BHC [2C]	0.426640	0.02	0.500000		85.3	63 - 92		
alpha-Chlordane	0.405675	0.02	0.500000		81.1	63 - 101		
alpha-Chlordane [2C]	0.402485	0.02	0.500000		80.5	63 - 101		
beta-BHC	0.402305	0.02	0.500000		80.5	58 - 95		
beta-BHC [2C]	0.417620	0.02	0.500000		83.5	58 - 95		
delta-BHC	0.296420	0.02	0.500000		59.3	37 - 107		
delta-BHC [2C]	0.301115	0.02	0.500000		60.2	37 - 107		
Dieldrin	0.423310	0.05	0.500000		84.7	62 - 102		
Dieldrin [2C]	0.417805	0.05	0.500000		83.6	62 - 102		
Endosulfan I	0.403530	0.02	0.500000		80.7	61 - 97		
Endosulfan I [2C]	0.403385	0.02	0.500000		80.7	61 - 97		
Endosulfan II	0.403265	0.05	0.500000		80.7	61 - 103		
Endosulfan II [2C]	0.389170	0.05	0.500000		77.8	61 - 103		
Endosulfan sulfate	0.358325	0.05	0.500000		71.7	60 - 112		
Endosulfan Sulfate [2C]	0.361295	0.05	0.500000		72.3	60 - 112		
Endrin	0.481110	0.05	0.500000		96.2	62 - 103		
Endrin [2C]	0.478200	0.05	0.500000		95.6	62 - 103		
Endrin aldehyde	0.379145	0.05	0.500000		75.8	64 - 116		
Endrin aldehyde [2C]	0.385130	0.05	0.500000		77.0	64 - 116		
Endrin ketone	0.358185	0.05	0.500000		71.6	56 - 113		
Endrin ketone [2C]	0.357295	0.05	0.500000		71.5	56 - 113		
gamma-BHC	0.425680	0.02	0.500000		85.1	64 - 95		
gamma-BHC [2C]	0.433805	0.02	0.500000		86.8	64 - 95		



Certificate of Analysis

TRC
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Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0485-BS1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

gamma-Chlordane	0.404110	0.02	0.500000		80.8	64 - 99			
gamma-Chlordane [2C]	0.398495	0.02	0.500000		79.7	64 - 99			
Heptachlor	0.429555	0.02	0.500000		85.9	64 - 93			
Heptachlor [2C]	0.427605	0.02	0.500000		85.5	64 - 93			
Heptachlor epoxide	0.413020	0.02	0.500000		82.6	65 - 98			
Heptachlor epoxide [2C]	0.412610	0.02	0.500000		82.5	65 - 98			
Methoxychlor	0.375530	0.25	0.500000		75.1	0 - 141			
Methoxychlor [2C]	0.379540	0.25	0.500000		75.9	0 - 141			
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3766</i>		<i>0.500000</i>		<i>75.3</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3709</i>		<i>0.500000</i>		<i>74.2</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.4193</i>		<i>0.500000</i>		<i>83.9</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4522</i>		<i>0.500000</i>		<i>90.4</i>	<i>14 - 122</i>			

LCS Dup (B6J0485-BSD1)

Prepared: 10/17/2016 Analyzed: 10/18/2016

4,4'-DDD	0.412915	0.05	0.500000		82.6	59 - 109	0.267	20	
4,4'-DDD [2C]	0.406445	0.05	0.500000		81.3	59 - 109	0.529	20	
4,4'-DDE	0.417910	0.05	0.500000		83.6	63 - 101	0.501	20	
4,4'-DDE [2C]	0.410465	0.05	0.500000		82.1	63 - 101	0.525	20	
4,4'-DDT	0.357310	0.05	0.500000		71.5	36 - 96	0.293	20	
4,4'-DDT [2C]	0.343765	0.05	0.500000		68.8	36 - 96	0.0233	20	
Aldrin	0.422890	0.02	0.500000		84.6	64 - 96	0.172	20	
Aldrin [2C]	0.424450	0.02	0.500000		84.9	64 - 96	0.184	20	
alpha-BHC	0.417405	0.02	0.500000		83.5	63 - 92	0.0850	20	
alpha-BHC [2C]	0.427035	0.02	0.500000		85.4	63 - 92	0.0925	20	
alpha-Chlordane	0.407070	0.02	0.500000		81.4	63 - 101	0.343	20	
alpha-Chlordane [2C]	0.404780	0.02	0.500000		81.0	63 - 101	0.569	20	
beta-BHC	0.403215	0.02	0.500000		80.6	58 - 95	0.226	20	
beta-BHC [2C]	0.418000	0.02	0.500000		83.6	58 - 95	0.0910	20	
delta-BHC	0.295500	0.02	0.500000		59.1	37 - 107	0.311	20	
delta-BHC [2C]	0.301645	0.02	0.500000		60.3	37 - 107	0.176	20	
Dieldrin	0.425470	0.05	0.500000		85.1	62 - 102	0.509	20	
Dieldrin [2C]	0.421145	0.05	0.500000		84.2	62 - 102	0.796	20	
Endosulfan I	0.402075	0.02	0.500000		80.4	61 - 97	0.361	20	
Endosulfan I [2C]	0.406000	0.02	0.500000		81.2	61 - 97	0.646	20	
Endosulfan II	0.404575	0.05	0.500000		80.9	61 - 103	0.324	20	
Endosulfan II [2C]	0.390915	0.05	0.500000		78.2	61 - 103	0.447	20	
Endosulfan sulfate	0.359360	0.05	0.500000		71.9	60 - 112	0.288	20	
Endosulfan Sulfate [2C]	0.361835	0.05	0.500000		72.4	60 - 112	0.149	20	
Endrin	0.480965	0.05	0.500000		96.2	62 - 103	0.0301	20	
Endrin [2C]	0.479400	0.05	0.500000		95.9	62 - 103	0.251	20	
Endrin aldehyde	0.382375	0.05	0.500000		76.5	64 - 116	0.848	20	



Certificate of Analysis

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0485-BSD1) - Continued

Prepared: 10/17/2016 Analyzed: 10/18/2016

Endrin aldehyde [2C]	0.386910	0.05	0.500000		77.4	64 - 116	0.461	20	
Endrin ketone	0.358540	0.05	0.500000		71.7	56 - 113	0.0991	20	
Endrin ketone [2C]	0.356885	0.05	0.500000		71.4	56 - 113	0.115	20	
gamma-BHC	0.426260	0.02	0.500000		85.3	64 - 95	0.136	20	
gamma-BHC [2C]	0.433905	0.02	0.500000		86.8	64 - 95	0.0231	20	
gamma-Chlordane	0.405260	0.02	0.500000		81.1	64 - 99	0.284	20	
gamma-Chlordane [2C]	0.401110	0.02	0.500000		80.2	64 - 99	0.654	20	
Heptachlor	0.429535	0.02	0.500000		85.9	64 - 93	0.00466	20	
Heptachlor [2C]	0.427675	0.02	0.500000		85.5	64 - 93	0.0164	20	
Heptachlor epoxide	0.414065	0.02	0.500000		82.8	65 - 98	0.253	20	
Heptachlor epoxide [2C]	0.414665	0.02	0.500000		82.9	65 - 98	0.497	20	
Methoxychlor	0.375855	0.25	0.500000		75.2	0 - 141	0.0865	20	
Methoxychlor [2C]	0.377745	0.25	0.500000		75.5	0 - 141	0.474	20	
Surrogate: Decachlorobiphenyl	0.3734		0.500000		74.7	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3662		0.500000		73.2	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4183		0.500000		83.7	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4519		0.500000		90.4	14 - 122			



Certificate of Analysis

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Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0485 - GCSEMI_PCB/PEST_W

Blank (B6J0485-BLK2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

Surrogate: Decachlorobiphenyl

0.3834

0.500000

76.7

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4914

0.500000

98.3

14 - 122

LCS (B6J0485-BS2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.33340	0.50	5.00000		86.7	68 - 96			
Aroclor 1260	4.55504	0.50	5.00000		91.1	64 - 106			

Surrogate: Decachlorobiphenyl

0.3873

0.500000

77.5

7 - 127

Surrogate: Tetrachloro-m-xylene

0.5015

0.500000

100

14 - 122

LCS Dup (B6J0485-BSD2)

Prepared: 10/17/2016 Analyzed: 10/17/2016

Aroclor 1016	4.28924	0.50	5.00000		85.8	68 - 96	1.02	20	
Aroclor 1260	4.49792	0.50	5.00000		90.0	64 - 106	1.26	20	

Surrogate: Decachlorobiphenyl

0.3735

0.500000

74.7

7 - 127

Surrogate: Tetrachloro-m-xylene

0.4908

0.500000

98.2

14 - 122



Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (V34)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company:	TRC Solutions Inc	Address:	985 Research Drive	Tel:	949-341-7467
Attn:	John Nordenstam	City:	Irvine	Fax:	949-727-7314
Company:	TRC Solutions Inc	State:	CA	Zip:	92618
Address:	985 Research Drive	Email: jnordenstam@trcsolutions.com			
City:	Irvine	SEND INVOICE TO: Same as SEND REPORT TO			

Project Name:	LAUSD - Roosevelt HS	Quote No.:		Special Instructions/Comments:	
Project No.:	265642.0000/TAOL	PO #:			
Sampler:	Warren Howe				

Project Name: LAUSD-Roagsville HS		Quote No:	Special Instructions/Comments:			
Project No.: 265642.000/TA02	PO #:					
Sampler: Warren Howe						
ITEM	Lab No.	Sample Description		Sample ID / Location	Date	Time
1	1603634-01	MB-3-0.5			10-16-16	0750
2	-02	MB-3-2.5			10-16-16	0800
3	-03	MB-6-0.5			10-16-16	0810
4	-04	MB-6-0.5-DUP			10-16-16	0815
5	-05	MB-6-2.5			10-16-16	0820
6	-06	AA-653-2-0.5			10-16-16	0830
7	-07	AA-653-2-2.5			10-16-16	0840
8	-08	AA-65340.5			10-16-16	0833
9	-09	AA-653-4-2.5			10-16-16	0845
10	-10	AA-652-1-0.5			10-16-16	0847

Encircle or Write Requested Analysis										Encircle Sample Matrix								TAT	#	Type: 1=Tube; 2=Vial; 3=Liter; 4=Pin; 5=Jar; 6=Drum; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=C; 5=Zn (IAC); 6=NaOH; 7=NA2S2O3	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	6010 / 7000 (Title 22 Metals)	TO-15	As EPA 6010B	Pb EPA 6010B	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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1. Samples received hours: 7:30 AM to 7:00 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples submitted after 3:00 PM are considered received the following business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 0: 100% Surcharge NEXT BUSINESS DAY (if received by 9:00 AM)
TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 200% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 3: 300% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 4: 400% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE, 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge relative to the subcontract lab - ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Extended storage or hold is requested.
- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforms? ed report; \$35 per reprocessed EDD.
10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Relinquished by: (Signature and Printed Name)	Warren Howe	Date:	10/16/16	Time:	1500
Relinquished by: (Signature and Printed Name)	Proz Shureny	Date:	10/16/16	Time:	1650
Relinquished by: (Signature and Printed Name)	Edward Rodriguez	Date:	10/16/16	Time:	1650

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Ross Surarency
Signature: *Ross Surarency*
Submitter Print Name: Ross Surarency

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> Other:		<input type="checkbox"/> Y	<input type="checkbox"/> N

Company: TRC Solutions Inc		Address: 9685 Research Drive		Tel: 949-341-7467	
City: Irvine		State: CA		Zip: 92618	
Attn: John Nardenstam		Email: jnardenstam@trcsolutions.com		Fax: 949-727-7311	
Company: TRC Solutions Inc		Address:		State:	
City: Irvine		State: CA		Zip: 92618	

Project Name: LAUSD-Roosevelt HS		Quote No: E161131		Special Instructions/Comments:	
Project No: 265642000/TA02		PO #: 100816			
Sampler: Warren Howe					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603634-11	AA-652-1-2.5		10-16-16	0850
2	1603634-12	AA-652-4-0.5		10-16-16	0855
3	1603634-13	AA-652-4-2.5		10-16-16	0859
4	1603634-14	AA-652-3-0.5		10-16-16	0909
5	1603634-15	AA-652-3-0.5-DUP		10-16-16	0911
6	1603634-16	AA-652-3-2.5		10-16-16	0920
7	1603634-17	AA-652-2-0.5		10-16-16	0930
8	1603634-18	AA-652-2-2.5		10-16-16	0940
9	1603634-19	AA-653-3-0.5		10-16-16	0950
10	1603634-20	AA-653-3-2.5		10-16-16	10:00

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)		SOIL / SEDIMENT / SLUDGE		Type: 1-Tube, 2-VOA, 3-Liter, 4-Pint, 5-Gal, 6-Tedlar, 7-Canister		Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-AC, 5-H2O2, 6-NaOH, 7-Na2S2O3	<input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB <input type="checkbox"/> Level IV
8015 (GRO)							
8015 (DRO)							
8270 (Semi-Volatiles)							
8081 (Organochlorine Pesticides)							
8082 (PCBs)							
6010 / 7000 (Title 22 Metals)							
TO-15							
As EPA 6010B							
Pb EPA 6010B							

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: Ross Surrency

Signature: Ross Surrency

Relinquished by: (Signature and Printed Name)	Date: 10/16/16	Time: 1500
Relinquished by: (Signature and Printed Name)	Date: 10/16/16	Time: 1650
Relinquished by: (Signature and Printed Name)	Date: 10/16/16	Time: 1650

CHAIN OF CUSTODY RECORD

Page 4 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCC Ver. 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (V.O.A)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER IN CONTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N
		5. # OF SAMPLES MATCH COC	<input type="checkbox"/> Y <input type="checkbox"/> N
		6. PRESERVED	<input type="checkbox"/> Y <input type="checkbox"/> N
		7. COOLER TEMP. deg. C	5.4

Company: TRC Solutions Inc	Address: 9680 Research Drive	Tel: 949-341-7467
Attn: John Wardenstam jwardenstam@trcsolutions.com	City: Irvine CA	State: CA Zip: 92618
Company: TRC Solutions Inc	SEND INVOICE TO: Email: X same as SEND REPORT TO	
Address: 9685 Research Drive	City: Irvine	State: CA Zip: 92618
City: Irvine	State: CA	Zip: 92618

Project Name: LAUSD - Rooserelt HS		Quote No: EL6131	Special Instructions/Comments:	
Project No.: 265642-0000/TA02		PO #: 100816		
Sampler: WARDEN HOWE				
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1603634-31	AUD-4-2.5		1140
2	32 AUD-5-0.5			1150
3	33 AUD-5-2.0.5			1200
4	34 AUD-6-0.5			1205
5	35 AUD-6-2.5			1210
6	36 AUD-7-0.5-DUP			1220
7	37 AUD-7-0.5			1225
8	38 AUD-7-2.0.5			1230
9	39 AUD-UB-4-0.5			1240
10	40 UB-4-2.5			1250

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.	
2. Samples Submitted After 3:00 PM, are considered received the following business day at 8:00 AM.	
3. The following surcharges apply to samples received after 3:00 PM:	
TAT = 0 : 300% Surcharge - SAME BUSINESS DAY (COB 5:00 PM)	
TAT = 1 : 100% Surcharge - NEXT BUSINESS DAY (COB 5:00 PM)	
TAT = 2 : 50% Surcharge - 2ND BUSINESS DAY (COB 5:00 PM)	
TAT = 3 : 30% Surcharge - 3RD BUSINESS DAY (COB 5:00 PM)	
TAT = 4 : 20% Surcharge - 4TH BUSINESS DAY (COB 5:00 PM)	
TAT = 5 : 10% Surcharge - 5TH BUSINESS DAY (COB 5:00 PM)	
4. Weekend holiday after-hours work - ask for quote.	
5. Subcontract to the subcontract lab - ask for quote.	
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.	
7. Electronic records maintained for five (5) years from report date.	
8. Hard copy reports will be disposed of after 45 calendar days from report date.	
9. Storage and Report fees:	
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested.	
- Regenerators: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.	
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated report/EDD report; \$35 per regenerated EDD.	
10. Rush TAT/STIC samples: add 2 days to analysis TAT for extraction on procedure.	
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	

Relinquished by: (Signature and Printed Name)	Warren Howe	Date: 10/16/16	Time: 1500
Relinquished by: (Signature and Printed Name)	Doris Duvey	Date: 10/16/16	Time: 1650
Relinquished by: (Signature and Printed Name)	Doris Duvey	Date: 10/16/16	Time: 1650

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS SURGENCY
Signature: Doris Duvey
Submitter Print Name: Doris Duvey

10/16/16 1500
10/16/16 1650
10/16/16 1650

CHAIN OF CUSTODY RECORD

Page 5 of 5

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> 5: IF SAMPLE MATCH COC	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> Other:	<input type="checkbox"/> 6: PRESERVED	<input type="checkbox"/> Y	<input type="checkbox"/> N
	<input type="checkbox"/> 7: COOLER TEMP. LOG C.	<input type="checkbox"/> Y	<input type="checkbox"/> N
	<input type="checkbox"/> 8: SEALED	<input type="checkbox"/> Y	<input type="checkbox"/> N

Company: TRC Solutions Inc	Address: 9685 Research Drive	City: Irvine	State: CA	Zip: 92618
Attn: John Norderstam	Email: jnorderstam@trcsolutions.com			
Company: TRC Solutions Inc				
Address: 9685 Research Drive				
City: Irvine	State: CA	Zip: 92618		

Project Name: LAUSD-Roosevelt HS		Quote No: E16I131	Special Instructions/Comments:	
Item	Lab No.	Sample ID / Location	Date	Time
1	1603634-41	UB-5-0.5	10-16-16	1300
2	42UB-5-2.5		10-16-16	1310
3	43UB-6-0.5		10-16-16	1315
4	44UB-6-0.5-DUP		10-16-16	1317
5	45UB-6-2.5		10-16-16	1325
6	46HVAC-3-0.5		10-16-16	1330
7	47HVAC-3-2.5		10-16-16	1340
8	48HVAC-2-0.5		10-16-16	1345
9	49HVAC-1-2.5		10-16-16	1355
10	50EB-6-10/16/16		10-16-16	1430

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>ROSS SHERREY PO3 Sherrey</p> <p>Submitter Print Name: _____ Signature: _____</p>		<p>Date: 10/16/16 Time: 1500</p> <p>Date: 10-16-16 Time: 1650</p>
--	--	---

CUSTOMER

PROJECT SAMPLES

TERMS

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Thursday, October 20, 2016 12:57 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Rachelle Arada
Subject: RE: LAUSD-Roosevelt HS, 265642.0000 / TA02
Attachments: DOC102016.pdf

Carmen – Yes, all the samples marked with an “X” on page 4 of 5 on the COC are to be analyzed for As and Pb using EPA Method 6010B. Attached is a copy of the corrected COC.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Thursday, October 20, 2016 12:29 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com; Rachelle Arada <Rachelle@atlglobal.com>
Subject: LAUSD-Roosevelt HS, 265642.0000 / TA02

Hi John,

We would like to confirm that all the samples marked with an “X” on page 4 of 5 on the attached CoC are to be analyze for 6010 Pb, As. The test is not indicated on the CoC.

Thank you,

Carmen Aguila
Sample Control



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 245
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

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3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 4 of 5

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
 Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 5

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc

Attn: Johndondorstam jondondorstam@trcsolutions.com

Company: TRC Solutions Inc

Address: 9685 Research Drive

City: Irvine

Address: 9680 Research

City: Irvine CA

State: CA Zip: 92618

Attn: _____

Company: _____

Address: _____

City: _____

SEND REPORT TO:

Attn: _____ Email: _____

Company: _____

Address: _____

City: _____

SEND INVOICE TO:

Attn: _____ Email: _____

Company: _____

Address: _____

City: _____

Address: 9680 Research

City: Irvine CA

State: _____ Zip: _____

Attn: _____

Company: _____

Address: _____

City: _____

Address: 9680 Research

City: Irvine CA

State: _____ Zip: _____

Attn: _____

Company: _____

Address: _____

City: _____

Project Name: LAUSD - Hoosier HHS		Quote No.: E16 I 131		Special Instructions/Comments:	
Project No.: 265642-0000/TAP02		PO #:			
Sampler: Wardan Howe		100816			
ITEM	Lab No.	Sample Description			Time
		Sample ID / Location	Date		
1	1603634-31	AUD-4-2.5	10-16-16	1140	
2	32	AUD-5-0.5	10-16-16	1150	
3	33	AUD-5-2.5	11-16-16	1200	
4	34	AUD-6-0.5	10-16-16	1205	
5	35	AUD-6-2.5	10-16-16	1210	
6	36	AUD-7-0.5-DUP	10-16-16	1220	
7	37	AUD-7-0.5	10-16-16	1225	
8	38	AUD-7-2.5	10-16-16	1230	
9	39	AUD with UB-4-0.5	10-16-16	1240	
10	40	UB-4-2.5	10-16-16	1250	

3. Sample receiving hours: 9:30 AM to 7:30 PM, Monday – Friday; Saturday 8:30 AM to 12:00 PM.
4. Sample receiving hours: 9:30 AM to 7:30 PM, Monday – Friday; Saturday 8:30 AM to 12:00 PM.
5. The following turnaround time conditions will apply to all samples received:
a. LAT < 0 = 200% Surcharge NEXT BUSINESS DAY (received by 9:00 AM)
b. LAT < 1 = 100% Surcharge NEXT BUSINESS DAY (CDB 5:00 PM)
c. LAT < 2 = 50% Surcharge NEXT BUSINESS DAY (CDB 5:00 PM)
d. LAT < 3 = 25% Surcharge NEXT BUSINESS DAY (CDB 5:00 PM)
e. LAT < 4 = 20% Surcharge 2ND BUSINESS DAY (CDB 5:00 PM)
f. LAT < 5 = 15% Surcharge 3RD BUSINESS DAY (CDB 5:00 PM)
6. A weekend, holiday, after-hour work day (LAT CDB 5:00 PM)
7. Subcontract LAT is 10 – 12 business days. Projects requiring the next LAT will incur a surcharge (applied to the subcontract) lab work – ask for quote
8. Repeat and/or additional samples will be disposed of after 45 calendar days from receipt of samples, on samples will be disposed of after 14 calendar days from receipt of samples
9. Electronic records maintained for 16 years from report date
10. Hard copy records will be disposed of after 45 calendar days from report date
11. Storage and Repeat Fees:
a. Samples requiring complimentary storage for 16 years (43) calendar days from receipt of samples, \$2/sample/month if extended storage or hard is requested
b. Samples/Complimentary storage for ten (10) calendar days from receipt of samples, \$20/sample/week if extended storage is requested
12. Hard copy and regenerated reports/EDBs: \$17.50 per hard copy report requested, \$50.00 per regenerated/reformatted ed report;
13. Rich (RICH)/SLIC samples: add a disposal fee of \$7 per sample.
14. Unanalyzed samples: will incur a disposal fee of \$7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Ross Surrency *Ross Surrency*
 Submitter Print Name Signature

Relinquished by: (Signature and Printed Name)	Warren Howe	Date: 10/16/16	Time: 1500	Received by: (Signature and Printed Name)	Josh Rivery	Date: 10/16/16	Time: 1500
Relinquished by: (Signature and Printed Name)	Josh Rivery	Date: 10/16/16	Time: 1650	Received by: (Signature and Printed Name)	Josh Rivery	Date: 10/16/16	Time: 1650
Relinquished by: (Signature and Printed Name)		Date:	Time:	Received by: (Signature and Printed Name)		Date:	Time:

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 4:08 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Legacy High School - STLC Extraction and Analysis for Lead

Rachelle,

Please conduct STLC extraction and analysis for Lead for the following samples:

- C-12-0.5
- MB-6-0.5 DUP
- AUD-3-0.5
- AUD-4-0.5
- AUD-5-0.5
- AUD-6-0.5

Please call me with any questions.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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January 11, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603634

Client Reference : LAUSD-Roosevelt HS, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 16, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AUD-3-0.5	1603634-28	Soil	10/16/16 11:10	10/16/16 16:50
AUD-4-0.5	1603634-30	Soil	10/16/16 11:30	10/16/16 16:50
AUD-5-0.5	1603634-32	Soil	10/16/16 11:50	10/16/16 16:50
AUD-6-0.5	1603634-34	Soil	10/16/16 12:05	10/16/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 01/11/2017

Client Sample ID AUD-3-0.5

Lab ID: 1603634-28

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0264	01/10/2017	01/10/17 14:37	D1



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 01/11/2017

Client Sample ID AUD-4-0.5

Lab ID: 1603634-30

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.41	0.25	0.014	5	B7A0264	01/10/2017	01/10/17 14:39	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID AUD-5-0.5

Lab ID: 1603634-32

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.59	0.25	0.014	5	B7A0264	01/10/2017	01/10/17 14:41	D1



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 01/11/2017

Client Sample ID AUD-6-0.5

Lab ID: 1603634-34

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.5	0.25	0.014	5	B7A0264	01/10/2017	01/10/17 14:44	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA
Report To : John Nordenstam
Reported : 01/11/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0264 - EPA 3010A_S									
Blank (B7A0264-BLK1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	ND	0.050			NR				
LCS (B7A0264-BS1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	1.03791	0.050	1.00000		104	80 - 120			
Duplicate (B7A0264-DUP1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	ND	0.25		ND	NR			20	
Matrix Spike (B7A0264-MS1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	2.42425	0.25	2.50000	ND	97.0	78 - 109			
Matrix Spike Dup (B7A0264-MSD1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Lead	2.39740	0.25	2.50000	ND	95.9	78 - 109	1.11	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-Roosevelt HS, 265642.0000 / TA

Report To : John Nordenstam

Reported : 01/11/2017

Notes and Definitions

D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L		
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B		TCLP mg/L		
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L			
									TTLC mg/L		STLC mg/L
Units: Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19	---	---	Perform laboratory analysis for STLC for lead	
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16	---	---		
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25	---	---		
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26	---	---		
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17	---	---		
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17	---	---		
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17	---	---		
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16	---	---		
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26	---	---		
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34	---	---		
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35	---	---		
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11	---	---		
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9	---	---		
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13	---	---		
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15	---	---		
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0	---	---		
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10	---	---		
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13	---	---		
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8	---	---		
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12	---	---		
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14	---	---		
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12	---	---		
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19	---	---		
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13	---	---		
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14	---	---		
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7	---	---		
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35	---	---		
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X	---	Perform laboratory analysis for STLC for lead	
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X	---	Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X	---	Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74	---	---		
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61	---	---		
IM-3c-0-5	11/23/2016	1604246	0.5	66	X	---	---	---	Perform laboratory analysis for STLC for arsenic	
IM-3c-2-5	11/23/2016	1604246	2.5	22	---	---	---	---		

Table 2
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Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TtLC	TCLP	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:				12	5.0	80	5.0			
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	X	X		Perform laboratory analysis for STLC for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	X	X		Perform laboratory analysis for STLC for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	X	X		Perform laboratory analysis for STLC for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	X	X		Perform laboratory analysis for STLC for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	X	X		Perform laboratory analysis for STLC for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---		
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X	X		Perform laboratory analysis for STLC for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X	X		Perform laboratory analysis for STLC for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X	X		Perform laboratory analysis for STLC for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X	X		Perform laboratory analysis for STLC for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X	X		Perform laboratory analysis for STLC for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X	X		Perform laboratory analysis for STLC for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---		
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X	X		Perform laboratory analysis for STLC for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X	X		Perform laboratory analysis for STLC for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X	X		Perform laboratory analysis for STLC for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X	X		Perform laboratory analysis for STLC for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X	X		Perform laboratory analysis for STLC for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X	X		Perform laboratory analysis for STLC for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X	X		Perform laboratory analysis for STLC for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X	X		Perform laboratory analysis for STLC for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X	X		Perform laboratory analysis for STLC for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X	X		Perform laboratory analysis for STLC for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X	X		Perform laboratory analysis for STLC for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X	X		Perform laboratory analysis for STLC for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X	X		Perform laboratory analysis for STLC for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X	X		Perform laboratory analysis for STLC for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X	X		Perform laboratory analysis for STLC for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X	X		Perform laboratory analysis for STLC for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X	X		Perform laboratory analysis for STLC for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X	X		Perform laboratory analysis for STLC for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X	X		Perform laboratory analysis for STLC for lead

Table 2
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Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
			Units:	mg/kg	mg/L	mg/kg	mg/L	mg/L		
			Screening Level:	12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



October 25, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603653

Client Reference : LAUSD Roosevelt HS PEA, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 18, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 10/25/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Composite A1	1603653-01	Soil	10/08/16 0:00	10/18/16 13:43
Composite A2	1603653-02	Soil	10/08/16 0:00	10/18/16 13:43
Composite A3	1603653-03	Soil	10/08/16 0:00	10/18/16 13:43
Composite A4	1603653-04	Soil	10/08/16 0:00	10/18/16 13:43
Composite A5	1603653-05	Soil	10/08/16 0:00	10/18/16 13:43
Composite A6	1603653-06	Soil	10/15/16 0:00	10/18/16 13:43
Composite A7	1603653-07	Soil	10/15/16 0:00	10/18/16 13:43
Composite A8	1603653-08	Soil	10/15/16 0:00	10/18/16 13:43
Composite A9	1603653-09	Soil	10/15/16 0:00	10/18/16 13:43
Composite A10	1603653-10	Soil	10/15/16 0:00	10/18/16 13:43
Composite B1	1603653-11	Soil	10/09/16 0:00	10/18/16 13:43
Composite B2	1603653-12	Soil	10/09/16 0:00	10/18/16 13:43
Composite B3	1603653-13	Soil	10/09/16 0:00	10/18/16 13:43
Composite B4	1603653-14	Soil	10/09/16 0:00	10/18/16 13:43
Composite B5	1603653-15	Soil	10/08/16 0:00	10/18/16 13:43
Composite B6	1603653-16	Soil	10/09/16 0:00	10/18/16 13:43
Composite B7	1603653-17	Soil	10/08/16 0:00	10/18/16 13:43
Composite B8	1603653-18	Soil	10/09/16 0:00	10/18/16 13:43
Composite B9	1603653-19	Soil	10/08/16 0:00	10/18/16 13:43
Composite B10	1603653-20	Soil	10/09/16 0:00	10/18/16 13:43
Composite B11	1603653-21	Soil	10/08/16 0:00	10/18/16 13:43
Composite B12	1603653-22	Soil	10/09/16 0:00	10/18/16 13:43
Composite B13	1603653-23	Soil	10/08/16 0:00	10/18/16 13:43
Composite B14	1603653-24	Soil	10/09/16 0:00	10/18/16 13:43
Composite B15	1603653-25	Soil	10/08/16 0:00	10/18/16 13:43
Composite B16	1603653-26	Soil	10/09/16 0:00	10/18/16 13:43
Composite B17	1603653-27	Soil	10/09/16 0:00	10/18/16 13:43
Composite B18	1603653-28	Soil	10/09/16 0:00	10/18/16 13:43
Composite C1	1603653-29	Soil	10/15/16 0:00	10/18/16 13:43
Composite C2	1603653-30	Soil	10/15/16 0:00	10/18/16 13:43
Composite C3	1603653-31	Soil	10/16/16 0:00	10/18/16 13:43
Composite C4	1603653-32	Soil	10/16/16 0:00	10/18/16 13:43
Composite C5	1603653-33	Soil	10/16/16 0:00	10/18/16 13:43
Composite C6	1603653-34	Soil	10/16/16 0:00	10/18/16 13:43
Composite C7	1603653-35	Soil	10/16/16 0:00	10/18/16 13:43
Composite C8	1603653-36	Soil	10/16/16 0:00	10/18/16 13:43
Composite C9	1603653-37	Soil	10/15/16 0:00	10/18/16 13:43



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Composite C10	1603653-38	Soil	10/16/16 0:00	10/18/16 13:43
Composite C11	1603653-39	Soil	10/16/16 0:00	10/18/16 13:43
Composite C12	1603653-40	Soil	10/16/16 0:00	10/18/16 13:43
Composite C13	1603653-41	Soil	10/16/16 0:00	10/18/16 13:43
Composite A10-DUPLICATE	1603653-42	Soil	10/15/16 0:00	10/18/16 13:43
Composite B10-DUPLICATE	1603653-43	Soil	10/09/16 0:00	10/18/16 13:43
Composite C2-DUPLICATE	1603653-44	Soil	10/15/16 0:00	10/18/16 13:43
Composite C8-DUPLICATE	1603653-45	Soil	10/16/16 0:00	10/18/16 13:43
Composite C12-DUPLICATE	1603653-46	Soil	10/16/16 0:00	10/18/16 13:43



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Client Sample ID Composite A1

Lab ID: 1603653-01

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/19/16 17:25	
4,4'-DDE	3.2	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:31	
4,4'-DDT [2C]	0.88	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 11:31	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/19/16 17:25	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/19/16 17:25	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:31	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/19/16 17:25	
Chlordane [2C]	1.5	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 11:31	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/19/16 17:25	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 11:31	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/19/16 17:25	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/19/16 17:25	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/19/16 17:25	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/19/16 17:25	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/19/16 17:25	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/19/16 17:25	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/19/16 17:25	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 11:31	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/19/16 17:25	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/19/16 17:25	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/19/16 17:25	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/19/16 17:25	
Surrogate: Decachlorobiphenyl	58.0 %		27 - 123		B6J0553	10/19/2016	10/19/16 17:25	
Surrogate: Tetrachloro-m-xylene	80.1 %		26 - 108		B6J0553	10/19/2016	10/19/16 17:25	



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Client Sample ID Composite A1

Lab ID: 1603653-01

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1221	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1232	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1242	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1248	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1254	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1260	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1262	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Aroclor 1268	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:25	
Surrogate: Decachlorobiphenyl	58.0 %		26 - 137		B6J0553	10/19/2016	10/19/16 17:25	
Surrogate: Tetrachloro-m-xylene	80.1 %		28 - 102		B6J0553	10/19/2016	10/19/16 17:25	



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Client Sample ID Composite A2

Lab ID: 1603653-02

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 11:41	
4,4'-DDE [2C]	1.1	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:41	J
4,4'-DDT [2C]	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 11:41	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 11:41	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:41	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:41	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 11:41	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 11:41	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:41	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 11:41	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:41	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 11:41	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:41	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 11:41	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 11:41	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:41	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:41	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 11:41	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 11:41	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:41	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 11:41	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 11:41	
<i>Surrogate: Decachlorobiphenyl</i>	<i>40.5 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 11:41</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>42.5 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 11:41</i>	



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Client Sample ID Composite A3

Lab ID: 1603653-03

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	1.2	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 11:52	J
4,4'-DDE [2C]	18	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:52	
4,4'-DDT [2C]	3.4	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 11:52	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 11:52	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:52	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:52	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 11:52	
Chlordane [2C]	3.0	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 11:52	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:52	
Dieldrin	0.44	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 11:52	J
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:52	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 11:52	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 11:52	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 11:52	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 11:52	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:52	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:52	
gamma-Chlordane	0.31	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 11:52	J
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 11:52	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 11:52	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 11:52	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 11:52	
<i>Surrogate: Decachlorobiphenyl</i>	<i>56.3 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 11:52</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>64.4 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 11:52</i>	



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Client Sample ID Composite A4

Lab ID: 1603653-04

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.53	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:02	J
4,4'-DDE [2C]	14	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:02	
4,4'-DDT [2C]	1.5	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 12:02	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 12:02	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:02	
alpha-Chlordane	0.45	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:02	J
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:02	
Chlordane [2C]	4.6	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 12:02	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:02	
Dieldrin	0.91	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 12:02	J
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:02	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:02	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:02	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:02	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 12:02	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:02	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:02	
gamma-Chlordane	0.41	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:02	J
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 12:02	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:02	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 12:02	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 12:02	
<i>Surrogate: Decachlorobiphenyl</i>	<i>52.7 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 12:02</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>61.5 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 12:02</i>	



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Client Sample ID Composite A5

Lab ID: 1603653-05

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	0.32	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:13	J
4,4'-DDE [2C]	9.3	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:13	
4,4'-DDT	0.70	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 12:13	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 12:13	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:13	
alpha-Chlordane	0.33	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:13	J
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:13	
Chlordane [2C]	4.2	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 12:13	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:13	
Dieldrin [2C]	7.8	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 12:13	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:13	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:13	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:13	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:13	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 12:13	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:13	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:13	
gamma-Chlordane	0.46	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:13	J
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 12:13	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:13	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 12:13	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 12:13	
<i>Surrogate: Decachlorobiphenyl</i>	<i>54.2 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 12:13</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>62.4 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 12:13</i>	



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Lab ID: 1603653-06

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:23	
4,4'-DDE	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:23	
4,4'-DDT	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 12:23	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 12:23	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:23	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:23	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:23	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 12:23	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:23	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 12:23	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:23	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:23	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:23	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:23	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 12:23	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:23	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:23	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:23	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 12:23	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:23	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 12:23	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 12:23	
Surrogate: Decachlorobiphenyl	34.8 %		27 - 123		B6J0553	10/19/2016	10/20/16 12:23	
Surrogate: Tetrachloro-m-xylene	42.2 %		26 - 108		B6J0553	10/19/2016	10/20/16 12:23	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 10/25/2016

Client Sample ID Composite A7

Lab ID: 1603653-07

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:34	
4,4'-DDE	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:34	
4,4'-DDT	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 12:34	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 12:34	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:34	
alpha-Chlordane	0.24	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:34	J
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:34	
Chlordane [2C]	2.9	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 12:34	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:34	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 12:34	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:34	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:34	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:34	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:34	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 12:34	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:34	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:34	
gamma-Chlordane [2C]	0.29	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:34	J
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 12:34	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:34	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 12:34	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 12:34	
<i>Surrogate: Decachlorobiphenyl</i>	<i>37.5 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 12:34</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>44.6 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 12:34</i>	



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Lab ID: 1603653-08

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:44	
4,4'-DDE	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:44	
4,4'-DDT	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 12:44	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 12:44	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:44	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:44	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:44	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 12:44	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:44	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 12:44	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:44	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:44	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:44	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:44	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 12:44	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:44	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:44	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:44	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 12:44	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:44	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 12:44	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 12:44	
Surrogate: Decachlorobiphenyl	33.5 %		27 - 123		B6J0553	10/19/2016	10/20/16 12:44	
Surrogate: Tetrachloro-m-xylene	41.3 %		26 - 108		B6J0553	10/19/2016	10/20/16 12:44	



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Client Sample ID Composite A8

Lab ID: 1603653-08

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1221	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1232	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1242	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1248	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1254	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1260	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1262	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Aroclor 1268	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 17:44	
Surrogate: Decachlorobiphenyl	58.8 %		26 - 137		B6J0553	10/19/2016	10/19/16 17:44	
Surrogate: Tetrachloro-m-xylene	77.3 %		28 - 102		B6J0553	10/19/2016	10/19/16 17:44	



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Reported : 10/25/2016

Client Sample ID Composite A9

Lab ID: 1603653-09

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:55	
4,4'-DDE	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:55	
4,4'-DDT	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 12:55	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 12:55	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:55	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:55	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:55	
Chlordane	0.96	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 12:55	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:55	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 12:55	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:55	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 12:55	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 12:55	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:55	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 12:55	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:55	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:55	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 12:55	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 12:55	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 12:55	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 12:55	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 12:55	
<i>Surrogate: Decachlorobiphenyl</i>	<i>38.8 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 12:55</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>47.0 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 12:55</i>	



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Client Sample ID Composite A10

Lab ID: 1603653-10

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:05	
4,4'-DDE	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:05	
4,4'-DDT	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 13:05	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 13:05	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:05	
alpha-Chlordane	0.29	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:05	J
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:05	
Chlordane [2C]	2.7	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 13:05	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:05	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 13:05	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:05	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:05	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:05	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:05	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 13:05	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:05	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:05	
gamma-Chlordane	0.28	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:05	J
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 13:05	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:05	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 13:05	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 13:05	
<i>Surrogate: Decachlorobiphenyl</i>	<i>35.6 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 13:05</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>43.9 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 13:05</i>	



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Report To : John Nordenstam
Reported : 10/25/2016

Client Sample ID Composite B1

Lab ID: 1603653-11

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.70	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:16	J
4,4'-DDE [2C]	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:16	
4,4'-DDT	0.16	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 13:16	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 13:16	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:16	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:16	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:16	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 13:16	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:16	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 13:16	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:16	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:16	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:16	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:16	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 13:16	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:16	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:16	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:16	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 13:16	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:16	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 13:16	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 13:16	
<i>Surrogate: Decachlorobiphenyl</i>	<i>58.2 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 13:16</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>62.2 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 13:16</i>	



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Client Sample ID Composite B2

Lab ID: 1603653-12

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.23	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:26	J
4,4'-DDE	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:26	
4,4'-DDT	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 13:26	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 13:26	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:26	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:26	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:26	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 13:26	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:26	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 13:26	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:26	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:26	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:26	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:26	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 13:26	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:26	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:26	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:26	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 13:26	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:26	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 13:26	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 13:26	
<i>Surrogate: Decachlorobiphenyl</i>	<i>50.7 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 13:26</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>65.3 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 13:26</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
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Reported : 10/25/2016

Client Sample ID Composite B3

Lab ID: 1603653-13

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.42	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:37	J
4,4'-DDE [2C]	0.66	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:37	J
4,4'-DDT [2C]	0.63	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 13:37	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 13:37	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:37	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:37	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:37	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 13:37	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:37	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 13:37	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:37	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:37	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:37	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:37	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 13:37	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:37	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:37	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:37	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 13:37	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:37	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 13:37	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 13:37	
<i>Surrogate: Decachlorobiphenyl</i>	<i>50.0 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 13:37</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>56.0 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 13:37</i>	



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Client Sample ID Composite B4

Lab ID: 1603653-14

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.34	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:47	J
4,4'-DDE [2C]	0.27	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:47	J
4,4'-DDT	0.33	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 13:47	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 13:47	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:47	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:47	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:47	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 13:47	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:47	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 13:47	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:47	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:47	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:47	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:47	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 13:47	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:47	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:47	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:47	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 13:47	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:47	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 13:47	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 13:47	
<i>Surrogate: Decachlorobiphenyl</i>	<i>57.8 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 13:47</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>67.6 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 13:47</i>	



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Client Sample ID Composite B5

Lab ID: 1603653-15

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.34	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:58	J
4,4'-DDE [2C]	0.79	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:58	J
4,4'-DDT	0.45	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 13:58	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 13:58	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:58	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:58	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:58	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 13:58	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:58	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 13:58	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:58	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 13:58	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 13:58	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:58	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 13:58	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:58	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:58	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 13:58	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 13:58	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 13:58	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 13:58	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 13:58	
<i>Surrogate: Decachlorobiphenyl</i>	<i>50.9 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 13:58</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>66.6 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 13:58</i>	



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Lab ID: 1603653-16

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.35	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:08	J
4,4'-DDE	0.88	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:08	J
4,4'-DDT [2C]	0.51	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 14:08	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 14:08	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:08	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:08	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:08	
Chlordane	3.5	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 14:08	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:08	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 14:08	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:08	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:08	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:08	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:08	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 14:08	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:08	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:08	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:08	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 14:08	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:08	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 14:08	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 14:08	
<i>Surrogate: Decachlorobiphenyl</i>	<i>48.0 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 14:08</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>60.2 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 14:08</i>	



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Lab ID: 1603653-17

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 17:42	
4,4'-DDE [2C]	0.91	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:42	J
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 17:42	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 17:42	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:42	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:42	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 17:42	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 17:42	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:42	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 17:42	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:42	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 17:42	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:42	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 17:42	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 17:42	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:42	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:42	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 17:42	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 17:42	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:42	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 17:42	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 17:42	
<i>Surrogate: Decachlorobiphenyl</i>	<i>54.3 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 17:42</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>62.3 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 17:42</i>	



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Lab ID: 1603653-18

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 17:53	
4,4'-DDE	0.83	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:53	J
4,4'-DDT	0.28	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 17:53	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 17:53	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:53	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:53	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 17:53	
Chlordane	3.1	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 17:53	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:53	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 17:53	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:53	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 17:53	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 17:53	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 17:53	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 17:53	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:53	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:53	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 17:53	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 17:53	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 17:53	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 17:53	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 17:53	
<i>Surrogate: Decachlorobiphenyl</i>	<i>60.3 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 17:53</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>64.3 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 17:53</i>	



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Lab ID: 1603653-19

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:03	
4,4'-DDE	1.2	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:03	J
4,4'-DDT	0.25	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 18:03	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 18:03	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:03	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:03	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:03	
Chlordane	3.1	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 18:03	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:03	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 18:03	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:03	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:03	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:03	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:03	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 18:03	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:03	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:03	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:03	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 18:03	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:03	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 18:03	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 18:03	
<i>Surrogate: Decachlorobiphenyl</i>	<i>58.1 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 18:03</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>63.7 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 18:03</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 10/25/2016

Client Sample ID Composite B10

Lab ID: 1603653-20

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:14	
4,4'-DDE	2.0	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:14	
4,4'-DDT	0.60	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 18:14	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 18:14	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:14	
alpha-Chlordane	0.53	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:14	J
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:14	
Chlordane [2C]	5.1	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 18:14	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:14	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 18:14	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:14	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:14	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:14	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:14	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 18:14	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:14	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:14	
gamma-Chlordane [2C]	0.23	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:14	J
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 18:14	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:14	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 18:14	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 18:14	
Surrogate: Decachlorobiphenyl	51.2 %		27 - 123		B6J0593	10/20/2016	10/21/16 18:14	
Surrogate: Tetrachloro-m-xylene	58.3 %		26 - 108		B6J0593	10/20/2016	10/21/16 18:14	



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Report To : John Nordenstam

Reported : 10/25/2016

Client Sample ID Composite B11

Lab ID: 1603653-21

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:24	
4,4'-DDE	1.3	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:24	J
4,4'-DDT	0.50	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 18:24	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 18:24	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:24	
alpha-Chlordane	0.24	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:24	J
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:24	
Chlordane	4.2	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 18:24	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:24	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 18:24	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:24	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:24	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:24	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:24	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 18:24	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:24	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:24	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:24	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 18:24	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:24	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 18:24	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 18:24	
Surrogate: Decachlorobiphenyl	53.4 %		27 - 123		B6J0593	10/20/2016	10/21/16 18:24	
Surrogate: Tetrachloro-m-xylene	68.7 %		26 - 108		B6J0593	10/20/2016	10/21/16 18:24	



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Client Sample ID Composite B12

Lab ID: 1603653-22

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:35	
4,4'-DDE	1.7	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:35	J
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 18:35	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 18:35	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:35	
alpha-Chlordane	0.64	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:35	J
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:35	
Chlordane [2C]	4.1	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 18:35	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:35	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 18:35	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:35	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:35	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:35	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:35	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 18:35	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:35	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:35	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:35	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 18:35	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:35	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 18:35	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 18:35	
<i>Surrogate: Decachlorobiphenyl</i>	<i>60.4 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 18:35</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>88.0 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 18:35</i>	



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Client Sample ID Composite B13

Lab ID: 1603653-23

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:45	
4,4'-DDE [2C]	1.1	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:45	J
4,4'-DDT	0.41	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 18:45	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 18:45	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:45	
alpha-Chlordane	0.32	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:45	J
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:45	
Chlordane [2C]	2.9	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 18:45	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:45	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 18:45	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:45	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:45	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:45	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:45	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 18:45	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:45	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:45	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:45	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 18:45	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:45	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 18:45	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 18:45	
<i>Surrogate: Decachlorobiphenyl</i>	<i>55.5 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 18:45</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>72.4 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 18:45</i>	



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Client Sample ID Composite B14

Lab ID: 1603653-24

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:56	
4,4'-DDE	0.75	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:56	J
4,4'-DDT	0.28	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 18:56	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 18:56	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:56	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:56	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:56	
Chlordane [2C]	2.1	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 18:56	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:56	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 18:56	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:56	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 18:56	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 18:56	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:56	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 18:56	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:56	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:56	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 18:56	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 18:56	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 18:56	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 18:56	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 18:56	
<i>Surrogate: Decachlorobiphenyl</i>	<i>56.1 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 18:56</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>66.6 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 18:56</i>	



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Client Sample ID Composite B15

Lab ID: 1603653-25

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:19	
4,4'-DDE	0.28	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:19	J
4,4'-DDT [2C]	0.28	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 14:19	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 14:19	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:19	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:19	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:19	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 14:19	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:19	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 14:19	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:19	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:19	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:19	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:19	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 14:19	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:19	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:19	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:19	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 14:19	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:19	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 14:19	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 14:19	
<i>Surrogate: Decachlorobiphenyl</i>	<i>35.6 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 14:19</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>43.3 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 14:19</i>	



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Client Sample ID Composite B15

Lab ID: 1603653-25

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
Aroclor 1221	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
Aroclor 1232	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
Aroclor 1242	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
Aroclor 1248	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
Aroclor 1254	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
Aroclor 1260	3.8	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	J
Aroclor 1262	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
Aroclor 1268	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 18:41	
<i>Surrogate: Decachlorobiphenyl</i>	<i>69.1 %</i>		<i>26 - 137</i>		B6J0553	10/19/2016	<i>10/19/16 18:41</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>91.3 %</i>		<i>28 - 102</i>		B6J0553	10/19/2016	<i>10/19/16 18:41</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 10/25/2016

Client Sample ID Composite B16

Lab ID: 1603653-26

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:06	
4,4'-DDE	0.58	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:06	J
4,4'-DDT	0.21	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 19:06	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 19:06	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:06	
alpha-Chlordane	0.34	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:06	J
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:06	
Chlordane [2C]	2.7	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 19:06	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:06	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 19:06	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:06	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:06	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:06	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:06	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 19:06	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:06	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:06	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:06	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 19:06	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:06	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 19:06	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 19:06	
<i>Surrogate: Decachlorobiphenyl</i>	<i>43.2 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 19:06</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>51.9 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 19:06</i>	



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Client Sample ID Composite B17

Lab ID: 1603653-27

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:17	
4,4'-DDE	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:17	
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 19:17	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 19:17	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:17	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:17	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:17	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 19:17	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:17	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 19:17	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:17	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:17	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:17	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:17	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 19:17	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:17	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:17	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:17	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 19:17	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:17	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 19:17	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 19:17	
Surrogate: Decachlorobiphenyl	53.1 %		27 - 123		B6J0593	10/20/2016	10/21/16 19:17	
Surrogate: Tetrachloro-m-xylene	61.3 %		26 - 108		B6J0593	10/20/2016	10/21/16 19:17	



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Client Sample ID Composite B18

Lab ID: 1603653-28

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:27	
4,4'-DDE	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:27	
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 19:27	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 19:27	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:27	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:27	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:27	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 19:27	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:27	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 19:27	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:27	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:27	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:27	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:27	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 19:27	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:27	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:27	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:27	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 19:27	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:27	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 19:27	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 19:27	
Surrogate: Decachlorobiphenyl	51.7 %		27 - 123		B6J0593	10/20/2016	10/21/16 19:27	
Surrogate: Tetrachloro-m-xylene	66.0 %		26 - 108		B6J0593	10/20/2016	10/21/16 19:27	



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Reported : 10/25/2016

Client Sample ID Composite C1

Lab ID: 1603653-29

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:38	
4,4'-DDE	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:38	
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 19:38	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 19:38	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:38	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:38	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:38	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 19:38	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:38	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 19:38	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:38	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:38	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:38	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:38	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 19:38	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:38	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:38	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:38	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 19:38	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:38	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 19:38	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 19:38	
Surrogate: Decachlorobiphenyl	45.5 %		27 - 123		B6J0593	10/20/2016	10/21/16 19:38	
Surrogate: Tetrachloro-m-xylene	56.3 %		26 - 108		B6J0593	10/20/2016	10/21/16 19:38	



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Reported : 10/25/2016

Client Sample ID Composite C2

Lab ID: 1603653-30

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:48	
4,4'-DDE	1.2	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:48	J
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 19:48	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 19:48	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:48	
alpha-Chlordane [2C]	0.48	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:48	J
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:48	
Chlordane	5.2	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 19:48	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:48	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 19:48	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:48	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:48	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:48	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:48	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 19:48	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:48	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:48	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:48	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 19:48	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:48	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 19:48	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 19:48	
<i>Surrogate: Decachlorobiphenyl</i>	<i>58.7 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 19:48</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>76.7 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 19:48</i>	



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Report To : John Nordenstam

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Client Sample ID Composite C3

Lab ID: 1603653-31

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.22	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:29	J
4,4'-DDE	1.1	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:29	J
4,4'-DDT [2C]	0.50	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 14:29	J
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 14:29	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:29	
alpha-Chlordane	1.2	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:29	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:29	
Chlordane [2C]	6.8	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 14:29	J
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:29	
Dieldrin [2C]	1.7	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 14:29	J
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:29	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:29	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:29	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:29	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 14:29	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:29	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:29	
gamma-Chlordane	0.71	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:29	J
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 14:29	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:29	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 14:29	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 14:29	
<i>Surrogate: Decachlorobiphenyl</i>	<i>33.7 %</i>		<i>27 - 123</i>		B6J0553	10/19/2016	<i>10/20/16 14:29</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>40.0 %</i>		<i>26 - 108</i>		B6J0553	10/19/2016	<i>10/20/16 14:29</i>	



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Client Sample ID Composite C3

Lab ID: 1603653-31

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
Aroclor 1221	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
Aroclor 1232	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
Aroclor 1242	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
Aroclor 1248	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
Aroclor 1254	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
Aroclor 1260	11	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	J
Aroclor 1262	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
Aroclor 1268	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:00	
<i>Surrogate: Decachlorobiphenyl</i>	<i>66.4 %</i>		<i>26 - 137</i>		B6J0553	10/19/2016	<i>10/19/16 19:00</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>83.5 %</i>		<i>28 - 102</i>		B6J0553	10/19/2016	<i>10/19/16 19:00</i>	



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Report To : John Nordenstam

Reported : 10/25/2016

Client Sample ID Composite C4

Lab ID: 1603653-32

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:59	
4,4'-DDE [2C]	1.3	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:59	J
4,4'-DDT	1.2	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 19:59	J
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 19:59	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:59	
alpha-Chlordane	3.0	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:59	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:59	
Chlordane [2C]	22	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 19:59	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:59	
Dieldrin	7.3	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 19:59	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:59	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 19:59	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 19:59	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:59	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 19:59	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:59	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:59	
gamma-Chlordane	1.7	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 19:59	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 19:59	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 19:59	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 19:59	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 19:59	
<i>Surrogate: Decachlorobiphenyl</i>	<i>55.7 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 19:59</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>71.3 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 19:59</i>	



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Client Sample ID Composite C5

Lab ID: 1603653-33

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.25	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:09	J
4,4'-DDE	0.59	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:09	J
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 20:09	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 20:09	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:09	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:09	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:09	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 20:09	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:09	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 20:09	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:09	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:09	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:09	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:09	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 20:09	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:09	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:09	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:09	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 20:09	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:09	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 20:09	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 20:09	
<i>Surrogate: Decachlorobiphenyl</i>	<i>56.1 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 20:09</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>67.0 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 20:09</i>	



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Client Sample ID Composite C6

Lab ID: 1603653-34

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:40	
4,4'-DDE	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:40	
4,4'-DDT	ND	2.0	0.13	1	B6J0553	10/19/2016	10/20/16 14:40	
Aldrin	ND	1.0	0.27	1	B6J0553	10/19/2016	10/20/16 14:40	
alpha-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:40	
alpha-Chlordane	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:40	
beta-BHC	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:40	
Chlordane	ND	8.5	0.90	1	B6J0553	10/19/2016	10/20/16 14:40	
delta-BHC	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:40	
Dieldrin	ND	2.0	0.25	1	B6J0553	10/19/2016	10/20/16 14:40	
Endosulfan I	ND	1.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:40	
Endosulfan II	ND	2.0	0.22	1	B6J0553	10/19/2016	10/20/16 14:40	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0553	10/19/2016	10/20/16 14:40	
Endrin	ND	2.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:40	
Endrin aldehyde	ND	2.0	0.28	1	B6J0553	10/19/2016	10/20/16 14:40	
Endrin ketone	ND	2.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:40	
gamma-BHC	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:40	
gamma-Chlordane	ND	1.0	0.23	1	B6J0553	10/19/2016	10/20/16 14:40	
Heptachlor	ND	1.0	0.19	1	B6J0553	10/19/2016	10/20/16 14:40	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0553	10/19/2016	10/20/16 14:40	
Methoxychlor	ND	5.0	0.18	1	B6J0553	10/19/2016	10/20/16 14:40	
Toxaphene	ND	50	8.2	1	B6J0553	10/19/2016	10/20/16 14:40	
Surrogate: Decachlorobiphenyl	32.7 %		27 - 123		B6J0553	10/19/2016	10/20/16 14:40	
Surrogate: Tetrachloro-m-xylene	40.1 %		26 - 108		B6J0553	10/19/2016	10/20/16 14:40	



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Client Sample ID Composite C6

Lab ID: 1603653-34

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1221	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1232	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1242	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1248	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1254	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1260	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1262	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Aroclor 1268	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:19	
Surrogate: Decachlorobiphenyl	60.1 %		26 - 137		B6J0553	10/19/2016	10/19/16 19:19	
Surrogate: Tetrachloro-m-xylene	83.4 %		28 - 102		B6J0553	10/19/2016	10/19/16 19:19	



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Client Sample ID Composite C7

Lab ID: 1603653-35

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:20	
4,4'-DDE	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:20	
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 20:20	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 20:20	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:20	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:20	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:20	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 20:20	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:20	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 20:20	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:20	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:20	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:20	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:20	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 20:20	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:20	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:20	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:20	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 20:20	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:20	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 20:20	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 20:20	
Surrogate: Decachlorobiphenyl	53.3 %		27 - 123		B6J0593	10/20/2016	10/21/16 20:20	
Surrogate: Tetrachloro-m-xylene	66.4 %		26 - 108		B6J0593	10/20/2016	10/21/16 20:20	



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Client Sample ID Composite C8

Lab ID: 1603653-36

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1221	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1232	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1242	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1248	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1254	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1260	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1262	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Aroclor 1268	ND	16	1.5	1	B6J0553	10/19/2016	10/19/16 19:38	
Surrogate: Decachlorobiphenyl	56.3 %		26 - 137		B6J0553	10/19/2016	10/19/16 19:38	
Surrogate: Tetrachloro-m-xylene	81.5 %		28 - 102		B6J0553	10/19/2016	10/19/16 19:38	



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Report To : John Nordenstam
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Client Sample ID Composite C9

Lab ID: 1603653-37

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	1.1	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:30	J
4,4'-DDE [2C]	1.0	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:30	J
4,4'-DDT [2C]	2.3	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 20:30	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 20:30	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:30	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:30	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:30	
Chlordane [2C]	1.4	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 20:30	J
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:30	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 20:30	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:30	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:30	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:30	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:30	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 20:30	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:30	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:30	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:30	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 20:30	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:30	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 20:30	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 20:30	
<i>Surrogate: Decachlorobiphenyl</i>	<i>53.3 %</i>		<i>27 - 123</i>		B6J0593	10/20/2016	<i>10/21/16 20:30</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>65.5 %</i>		<i>26 - 108</i>		B6J0593	10/20/2016	<i>10/21/16 20:30</i>	



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Client Sample ID Composite C10

Lab ID: 1603653-38

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:41	
4,4'-DDE	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:41	
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 20:41	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 20:41	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:41	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:41	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:41	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 20:41	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:41	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 20:41	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:41	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:41	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:41	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:41	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 20:41	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:41	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:41	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:41	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 20:41	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:41	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 20:41	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 20:41	
Surrogate: Decachlorobiphenyl	51.0 %		27 - 123		B6J0593	10/20/2016	10/21/16 20:41	
Surrogate: Tetrachloro-m-xylene	62.6 %		26 - 108		B6J0593	10/20/2016	10/21/16 20:41	



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Client Sample ID Composite C11

Lab ID: 1603653-39

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:51	
4,4'-DDE	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:51	
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 20:51	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 20:51	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:51	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:51	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:51	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 20:51	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:51	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 20:51	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:51	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 20:51	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 20:51	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:51	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 20:51	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:51	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:51	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 20:51	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 20:51	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 20:51	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 20:51	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 20:51	
Surrogate: Decachlorobiphenyl	50.5 %		27 - 123		B6J0593	10/20/2016	10/21/16 20:51	
Surrogate: Tetrachloro-m-xylene	66.0 %		26 - 108		B6J0593	10/20/2016	10/21/16 20:51	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 10/25/2016

Client Sample ID Composite C12

Lab ID: 1603653-40

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 21:01	
4,4'-DDE	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 21:01	
4,4'-DDT	ND	2.0	0.13	1	B6J0593	10/20/2016	10/21/16 21:01	
Aldrin	ND	1.0	0.27	1	B6J0593	10/20/2016	10/21/16 21:01	
alpha-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 21:01	
alpha-Chlordane	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 21:01	
beta-BHC	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 21:01	
Chlordane	ND	8.5	0.90	1	B6J0593	10/20/2016	10/21/16 21:01	
delta-BHC	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 21:01	
Dieldrin	ND	2.0	0.25	1	B6J0593	10/20/2016	10/21/16 21:01	
Endosulfan I	ND	1.0	0.21	1	B6J0593	10/20/2016	10/21/16 21:01	
Endosulfan II	ND	2.0	0.22	1	B6J0593	10/20/2016	10/21/16 21:01	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0593	10/20/2016	10/21/16 21:01	
Endrin	ND	2.0	0.23	1	B6J0593	10/20/2016	10/21/16 21:01	
Endrin aldehyde	ND	2.0	0.28	1	B6J0593	10/20/2016	10/21/16 21:01	
Endrin ketone	ND	2.0	0.20	1	B6J0593	10/20/2016	10/21/16 21:01	
gamma-BHC	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 21:01	
gamma-Chlordane	ND	1.0	0.23	1	B6J0593	10/20/2016	10/21/16 21:01	
Heptachlor	ND	1.0	0.19	1	B6J0593	10/20/2016	10/21/16 21:01	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0593	10/20/2016	10/21/16 21:01	
Methoxychlor	ND	5.0	0.18	1	B6J0593	10/20/2016	10/21/16 21:01	
Toxaphene	ND	50	8.2	1	B6J0593	10/20/2016	10/21/16 21:01	
Surrogate: Decachlorobiphenyl	51.3 %		27 - 123		B6J0593	10/20/2016	10/21/16 21:01	
Surrogate: Tetrachloro-m-xylene	65.9 %		26 - 108		B6J0593	10/20/2016	10/21/16 21:01	



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Report To : John Nordenstam

Reported : 10/25/2016

Client Sample ID Composite C13

Lab ID: 1603653-41

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:15	
4,4'-DDE	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:15	
4,4'-DDT	ND	2.0	0.13	1	B6J0620	10/21/2016	10/24/16 17:15	
Aldrin	ND	1.0	0.27	1	B6J0620	10/21/2016	10/24/16 17:15	
alpha-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:15	
alpha-Chlordane	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:15	
beta-BHC	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:15	
Chlordane	ND	8.5	0.90	1	B6J0620	10/21/2016	10/24/16 17:15	
delta-BHC	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:15	
Dieldrin	ND	2.0	0.25	1	B6J0620	10/21/2016	10/24/16 17:15	
Endosulfan I	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:15	
Endosulfan II	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:15	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:15	
Endrin	ND	2.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:15	
Endrin aldehyde	ND	2.0	0.28	1	B6J0620	10/21/2016	10/24/16 17:15	
Endrin ketone	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:15	
gamma-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:15	
gamma-Chlordane	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:15	
Heptachlor	ND	1.0	0.19	1	B6J0620	10/21/2016	10/24/16 17:15	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:15	
Methoxychlor	ND	5.0	0.18	1	B6J0620	10/21/2016	10/24/16 17:15	
Toxaphene	ND	50	8.2	1	B6J0620	10/21/2016	10/24/16 17:15	
Surrogate: Decachlorobiphenyl	34.2 %		27 - 123		B6J0620	10/21/2016	10/24/16 17:15	
Surrogate: Tetrachloro-m-xylene	38.9 %		26 - 108		B6J0620	10/21/2016	10/24/16 17:15	



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Client Sample ID Composite A10-DUPLICATE

Lab ID: 1603653-42

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:25	
4,4'-DDE	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:25	
4,4'-DDT	ND	2.0	0.13	1	B6J0620	10/21/2016	10/24/16 17:25	
Aldrin	ND	1.0	0.27	1	B6J0620	10/21/2016	10/24/16 17:25	
alpha-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:25	
alpha-Chlordane	0.26	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:25	J
beta-BHC	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:25	
Chlordane	3.4	8.5	0.90	1	B6J0620	10/21/2016	10/24/16 17:25	J
delta-BHC	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:25	
Dieldrin	ND	2.0	0.25	1	B6J0620	10/21/2016	10/24/16 17:25	
Endosulfan I	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:25	
Endosulfan II	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:25	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:25	
Endrin	ND	2.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:25	
Endrin aldehyde	ND	2.0	0.28	1	B6J0620	10/21/2016	10/24/16 17:25	
Endrin ketone	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:25	
gamma-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:25	
gamma-Chlordane	0.34	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:25	J
Heptachlor	ND	1.0	0.19	1	B6J0620	10/21/2016	10/24/16 17:25	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:25	
Methoxychlor	ND	5.0	0.18	1	B6J0620	10/21/2016	10/24/16 17:25	
Toxaphene	ND	50	8.2	1	B6J0620	10/21/2016	10/24/16 17:25	
<i>Surrogate: Decachlorobiphenyl</i>	<i>38.7 %</i>		<i>27 - 123</i>		B6J0620	10/21/2016	<i>10/24/16 17:25</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>44.8 %</i>		<i>26 - 108</i>		B6J0620	10/21/2016	<i>10/24/16 17:25</i>	



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Client Sample ID Composite B10-DUPLICATE

Lab ID: 1603653-43

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:36	
4,4'-DDE	1.1	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:36	J
4,4'-DDT	0.34	2.0	0.13	1	B6J0620	10/21/2016	10/24/16 17:36	J
Aldrin	ND	1.0	0.27	1	B6J0620	10/21/2016	10/24/16 17:36	
alpha-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:36	
alpha-Chlordane	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:36	
beta-BHC	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:36	
Chlordane [2C]	1.6	8.5	0.90	1	B6J0620	10/21/2016	10/24/16 17:36	J
delta-BHC	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:36	
Dieldrin	ND	2.0	0.25	1	B6J0620	10/21/2016	10/24/16 17:36	
Endosulfan I	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:36	
Endosulfan II	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:36	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:36	
Endrin	ND	2.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:36	
Endrin aldehyde	ND	2.0	0.28	1	B6J0620	10/21/2016	10/24/16 17:36	
Endrin ketone	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:36	
gamma-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:36	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:36	
Heptachlor	ND	1.0	0.19	1	B6J0620	10/21/2016	10/24/16 17:36	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:36	
Methoxychlor	ND	5.0	0.18	1	B6J0620	10/21/2016	10/24/16 17:36	
Toxaphene	ND	50	8.2	1	B6J0620	10/21/2016	10/24/16 17:36	
<i>Surrogate: Decachlorobiphenyl</i>	<i>33.8 %</i>		<i>27 - 123</i>		B6J0620	10/21/2016	<i>10/24/16 17:36</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>36.5 %</i>		<i>26 - 108</i>		B6J0620	10/21/2016	<i>10/24/16 17:36</i>	



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Client Sample ID Composite C2-DUPLICATE

Lab ID: 1603653-44

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:46	
4,4'-DDE	0.43	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:46	J
4,4'-DDT	ND	2.0	0.13	1	B6J0620	10/21/2016	10/24/16 17:46	
Aldrin	ND	1.0	0.27	1	B6J0620	10/21/2016	10/24/16 17:46	
alpha-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:46	
alpha-Chlordane	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:46	
beta-BHC	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:46	
Chlordane	1.1	8.5	0.90	1	B6J0620	10/21/2016	10/24/16 17:46	J
delta-BHC	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:46	
Dieldrin	ND	2.0	0.25	1	B6J0620	10/21/2016	10/24/16 17:46	
Endosulfan I	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:46	
Endosulfan II	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:46	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:46	
Endrin	ND	2.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:46	
Endrin aldehyde	ND	2.0	0.28	1	B6J0620	10/21/2016	10/24/16 17:46	
Endrin ketone	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:46	
gamma-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:46	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:46	
Heptachlor	ND	1.0	0.19	1	B6J0620	10/21/2016	10/24/16 17:46	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:46	
Methoxychlor	ND	5.0	0.18	1	B6J0620	10/21/2016	10/24/16 17:46	
Toxaphene	ND	50	8.2	1	B6J0620	10/21/2016	10/24/16 17:46	
<i>Surrogate: Decachlorobiphenyl</i>	<i>38.8 %</i>		<i>27 - 123</i>		B6J0620	10/21/2016	<i>10/24/16 17:46</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>44.4 %</i>		<i>26 - 108</i>		B6J0620	10/21/2016	<i>10/24/16 17:46</i>	



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Report To : John Nordenstam

Reported : 10/25/2016

Client Sample ID Composite C8-DUPLICATE

Lab ID: 1603653-45

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1221	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1232	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1242	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1248	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1254	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1260	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1262	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
Aroclor 1268	ND	16	1.5	1	B6J0620	10/21/2016	10/21/16 16:16	
<i>Surrogate: Decachlorobiphenyl</i>	<i>49.1 %</i>		<i>26 - 137</i>		B6J0620	10/21/2016	<i>10/21/16 16:16</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>77.7 %</i>		<i>28 - 102</i>		B6J0620	10/21/2016	<i>10/21/16 16:16</i>	



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Reported : 10/25/2016

Client Sample ID Composite C12-DUPLICATE

Lab ID: 1603653-46

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:57	
4,4'-DDE	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:57	
4,4'-DDT	ND	2.0	0.13	1	B6J0620	10/21/2016	10/24/16 17:57	
Aldrin	ND	1.0	0.27	1	B6J0620	10/21/2016	10/24/16 17:57	
alpha-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:57	
alpha-Chlordane	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:57	
beta-BHC	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:57	
Chlordane	ND	8.5	0.90	1	B6J0620	10/21/2016	10/24/16 17:57	
delta-BHC	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:57	
Dieldrin	ND	2.0	0.25	1	B6J0620	10/21/2016	10/24/16 17:57	
Endosulfan I	ND	1.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:57	
Endosulfan II	ND	2.0	0.22	1	B6J0620	10/21/2016	10/24/16 17:57	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0620	10/21/2016	10/24/16 17:57	
Endrin	ND	2.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:57	
Endrin aldehyde	ND	2.0	0.28	1	B6J0620	10/21/2016	10/24/16 17:57	
Endrin ketone	ND	2.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:57	
gamma-BHC	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:57	
gamma-Chlordane	ND	1.0	0.23	1	B6J0620	10/21/2016	10/24/16 17:57	
Heptachlor	ND	1.0	0.19	1	B6J0620	10/21/2016	10/24/16 17:57	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0620	10/21/2016	10/24/16 17:57	
Methoxychlor	ND	5.0	0.18	1	B6J0620	10/21/2016	10/24/16 17:57	
Toxaphene	ND	50	8.2	1	B6J0620	10/21/2016	10/24/16 17:57	
Surrogate: Decachlorobiphenyl	41.2 %		27 - 123		B6J0620	10/21/2016	10/24/16 17:57	
Surrogate: Tetrachloro-m-xylene	45.6 %		26 - 108		B6J0620	10/21/2016	10/24/16 17:57	



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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0553 - GCSEMI_PCB/PEST_S

Blank (B6J0553-BLK1)

Prepared: 10/19/2016 Analyzed: 10/20/2016

4,4'-DDD	ND	2.0			NR
4,4'-DDD [2C]	ND	2.0			NR
4,4'-DDE	ND	2.0			NR
4,4'-DDE [2C]	ND	2.0			NR
4,4'-DDT	ND	2.0			NR
4,4'-DDT [2C]	ND	2.0			NR
Aldrin	ND	1.0			NR
Aldrin [2C]	ND	1.0			NR
alpha-BHC	ND	1.0			NR
alpha-BHC [2C]	ND	1.0			NR
alpha-Chlordane	ND	1.0			NR
alpha-Chlordane [2C]	ND	1.0			NR
beta-BHC	ND	1.0			NR
beta-BHC [2C]	ND	1.0			NR
Chlordane	ND	8.5			NR
Chlordane [2C]	ND	8.5			NR
delta-BHC	ND	1.0			NR
delta-BHC [2C]	ND	1.0			NR
Dieldrin	ND	2.0			NR
Dieldrin [2C]	ND	2.0			NR
Endosulfan I	ND	1.0			NR
Endosulfan I [2C]	ND	1.0			NR
Endosulfan II	ND	2.0			NR
Endosulfan II [2C]	ND	2.0			NR
Endosulfan sulfate	ND	2.0			NR
Endosulfan Sulfate [2C]	ND	2.0			NR
Endrin	ND	2.0			NR
Endrin [2C]	ND	2.0			NR
Endrin aldehyde	ND	2.0			NR
Endrin aldehyde [2C]	ND	2.0			NR
Endrin ketone	ND	2.0			NR
Endrin ketone [2C]	ND	2.0			NR
gamma-BHC	ND	1.0			NR
gamma-BHC [2C]	ND	1.0			NR
gamma-Chlordane	ND	1.0			NR
gamma-Chlordane [2C]	ND	1.0			NR
Heptachlor	ND	1.0			NR
Heptachlor [2C]	ND	1.0			NR
Heptachlor epoxide	ND	1.0			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0553 - GCSEMI_PCB/PEST_S (continued)

Blank (B6J0553-BLK1) - Continued

Prepared: 10/19/2016 Analyzed: 10/20/2016

Heptachlor epoxide [2C]	ND	1.0			NR			
Methoxychlor	ND	5.0			NR			
Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>11.23</i>		<i>16.6667</i>		<i>67.4</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>11.78</i>		<i>16.6667</i>		<i>70.7</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.88</i>		<i>16.6667</i>		<i>77.3</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>13.67</i>		<i>16.6667</i>		<i>82.0</i>	<i>26 - 108</i>		

LCS (B6J0553-BS1)

Prepared: 10/19/2016 Analyzed: 10/20/2016

4,4'-DDD	13.2238	2.0	16.6667		79.3	53 - 125		
4,4'-DDD [2C]	13.1363	2.0	16.6667		78.8	53 - 125		
4,4'-DDE	13.4417	2.0	16.6667		80.7	54 - 113		
4,4'-DDE [2C]	13.3375	2.0	16.6667		80.0	54 - 113		
4,4'-DDT	9.33467	2.0	16.6667		56.0	25 - 127		
4,4'-DDT [2C]	10.6100	2.0	16.6667		63.7	25 - 127		
Aldrin	13.5413	1.0	16.6667		81.2	59 - 107		
Aldrin [2C]	13.7327	1.0	16.6667		82.4	59 - 107		
alpha-BHC	13.2422	1.0	16.6667		79.5	59 - 104		
alpha-BHC [2C]	13.5425	1.0	16.6667		81.3	59 - 104		
alpha-Chlordane	12.9425	1.0	16.6667		77.7	54 - 110		
alpha-Chlordane [2C]	13.0192	1.0	16.6667		78.1	54 - 110		
beta-BHC	12.9368	1.0	16.6667		77.6	57 - 103		
beta-BHC [2C]	13.4317	1.0	16.6667		80.6	57 - 103		
delta-BHC	8.92367	1.0	16.6667		53.5	16 - 120		
delta-BHC [2C]	9.18117	1.0	16.6667		55.1	16 - 120		
Dieldrin	13.4840	2.0	16.6667		80.9	61 - 109		
Dieldrin [2C]	13.5415	2.0	16.6667		81.2	61 - 109		
Endosulfan I	12.8402	1.0	16.6667		77.0	60 - 106		
Endosulfan I [2C]	13.1547	1.0	16.6667		78.9	60 - 106		
Endosulfan II	12.9345	2.0	16.6667		77.6	59 - 108		
Endosulfan II [2C]	12.4578	2.0	16.6667		74.7	59 - 108		
Endosulfan sulfate	10.9170	2.0	16.6667		65.5	54 - 110		
Endosulfan Sulfate [2C]	11.3158	2.0	16.6667		67.9	54 - 110		
Endrin	15.2147	2.0	16.6667		91.3	63 - 112		
Endrin [2C]	15.5313	2.0	16.6667		93.2	63 - 112		
Endrin aldehyde	12.1210	2.0	16.6667		72.7	64 - 119		
Endrin aldehyde [2C]	12.2160	2.0	16.6667		73.3	64 - 119		
Endrin ketone	10.3505	2.0	16.6667		62.1	54 - 115		
Endrin ketone [2C]	10.8152	2.0	16.6667		64.9	54 - 115		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0553 - GCSEMI_PCB/PEST_S (continued)

LCS (B6J0553-BS1) - Continued

Prepared: 10/19/2016 Analyzed: 10/20/2016

gamma-BHC	13.3368	1.0	16.6667		80.0	60 - 107			
gamma-BHC [2C]	13.7663	1.0	16.6667		82.6	60 - 107			
gamma-Chlordane	12.9392	1.0	16.6667		77.6	57 - 106			
gamma-Chlordane [2C]	12.9303	1.0	16.6667		77.6	57 - 106			
Heptachlor	13.4520	1.0	16.6667		80.7	54 - 114			
Heptachlor [2C]	13.7778	1.0	16.6667		82.7	54 - 114			
Heptachlor epoxide	13.2508	1.0	16.6667		79.5	61 - 106			
Heptachlor epoxide [2C]	13.4370	1.0	16.6667		80.6	61 - 106			
Methoxychlor	10.3937	5.0	16.6667		62.4	18 - 138			
Methoxychlor [2C]	12.3632	5.0	16.6667		74.2	18 - 138			
Surrogate: Decachlorobiphenyl	11.31		16.6667		67.9	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	11.54		16.6667		69.2	27 - 123			
Surrogate: Tetrachloro-m-xylene	13.03		16.6667		78.2	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	14.32		16.6667		85.9	26 - 108			

Duplicate (B6J0553-DUP1)

Source: 1603653-08

Prepared: 10/19/2016 Analyzed: 10/20/2016

4,4'-DDD	ND	2.0		ND	NR			20	
4,4'-DDD [2C]	ND	2.0		ND	NR			20	
4,4'-DDE	ND	2.0		ND	NR			20	
4,4'-DDE [2C]	ND	2.0		ND	NR			20	
4,4'-DDT	ND	2.0		ND	NR			20	
4,4'-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0553 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6J0553-DUP1) - Continued

Source: 1603653-08

Prepared: 10/19/2016 Analyzed: 10/20/2016

Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	6.201		16.6667		37.2	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	6.400		16.6667		38.4	27 - 123			
Surrogate: Tetrachloro-m-xylene	6.499		16.6667		39.0	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	6.790		16.6667		40.7	26 - 108			

Matrix Spike (B6J0553-MS1)

Source: 1603653-25

Prepared: 10/19/2016 Analyzed: 10/20/2016

4,4'-DDD	5.16950	2.0	16.6667	ND	31.0	25 - 141			
4,4'-DDD [2C]	5.46617	2.0	16.6667	ND	32.8	25 - 141			
4,4'-DDE	7.49300	2.0	16.6667	0.282667	43.3	22 - 141			
4,4'-DDE [2C]	7.66500	2.0	16.6667	0.271667	44.4	22 - 141			
4,4'-DDT	5.04333	2.0	16.6667	0.231000	28.9	15 - 136			
4,4'-DDT [2C]	5.83267	2.0	16.6667	0.285000	33.3	15 - 136			
Aldrin	7.35300	1.0	16.6667	ND	44.1	33 - 118			
Aldrin [2C]	7.67750	1.0	16.6667	ND	46.1	33 - 118			
alpha-BHC	5.47700	1.0	16.6667	ND	32.9	30 - 116			
alpha-BHC [2C]	5.83683	1.0	16.6667	ND	35.0	30 - 116			
alpha-Chlordane	5.95717	1.0	16.6667	ND	35.7	30 - 123			
alpha-Chlordane [2C]	6.30450	1.0	16.6667	ND	37.8	30 - 123			
beta-BHC	2.99467	1.0	16.6667	ND	18.0	24 - 121			M2
beta-BHC [2C]	3.30833	1.0	16.6667	ND	19.8	24 - 121			M2
delta-BHC	0.871000	1.0	16.6667	ND	5.23	7 - 120			M2, J
delta-BHC [2C]	0.916833	1.0	16.6667	ND	5.50	7 - 120			M2, J
Dieldrin	2.40433	2.0	16.6667	ND	14.4	25 - 136			M2
Dieldrin [2C]	2.47050	2.0	16.6667	ND	14.8	25 - 136			M2
Endosulfan I	3.15050	1.0	16.6667	ND	18.9	18 - 134			
Endosulfan I [2C]	3.17717	1.0	16.6667	ND	19.1	18 - 134			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0553 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6J0553-MS1) - Continued

Source: 1603653-25

Prepared: 10/19/2016 Analyzed: 10/20/2016

Endosulfan II	0.524833	2.0	16.6667	ND	3.15	28 - 128			M2, J
Endosulfan II [2C]	0.423667	2.0	16.6667	ND	2.54	28 - 128			M2, J
Endosulfan sulfate	0.291167	2.0	16.6667	ND	1.75	5 - 145			M2, J
Endosulfan Sulfate [2C]	0.234000	2.0	16.6667	ND	1.40	5 - 145			M2, J
Endrin	2.83617	2.0	16.6667	ND	17.0	26 - 142			M2
Endrin [2C]	3.01950	2.0	16.6667	ND	18.1	26 - 142			M2
Endrin aldehyde	0.367667	2.0	16.6667	ND	2.21	8 - 146			M2, J
Endrin aldehyde [2C]	ND	2.0	16.6667	ND	NR	8 - 146			M2
Endrin ketone	0.283667	2.0	16.6667	ND	1.70	16 - 139			M2, J
Endrin ketone [2C]	0.372000	2.0	16.6667	ND	2.23	16 - 139			M2, J
gamma-BHC	4.85367	1.0	16.6667	ND	29.1	30 - 122			M2
gamma-BHC [2C]	5.13600	1.0	16.6667	ND	30.8	30 - 122			
gamma-Chlordane	25.9213	1.0	16.6667	ND	156	18 - 132			M2
gamma-Chlordane [2C]	5.54383	1.0	16.6667	ND	33.3	18 - 132			
Heptachlor	7.19650	1.0	16.6667	ND	43.2	34 - 122			
Heptachlor [2C]	7.60117	1.0	16.6667	ND	45.6	34 - 122			
Heptachlor epoxide	3.50500	1.0	16.6667	ND	21.0	21 - 135			
Heptachlor epoxide [2C]	3.68067	1.0	16.6667	ND	22.1	21 - 135			
Methoxychlor	0.622333	5.0	16.6667	ND	3.73	8 - 162			M2, J
Methoxychlor [2C]	1.01617	5.0	16.6667	ND	6.10	8 - 162			M2, J
Surrogate: Decachlorobiphenyl	7.126		16.6667		42.8	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	7.755		16.6667		46.5	27 - 123			
Surrogate: Tetrachloro-m-xylene	7.563		16.6667		45.4	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	7.930		16.6667		47.6	26 - 108			

Matrix Spike Dup (B6J0553-MSD1)

Source: 1603653-25

Prepared: 10/19/2016 Analyzed: 10/20/2016

4,4'-DDD	6.56050	2.0	16.6667	ND	39.4	25 - 141	23.7	20	R3
4,4'-DDD [2C]	7.07667	2.0	16.6667	ND	42.5	25 - 141	25.7	20	R3
4,4'-DDE	8.59900	2.0	16.6667	0.282667	49.9	22 - 141	13.7	20	
4,4'-DDE [2C]	9.07133	2.0	16.6667	0.271667	52.8	22 - 141	16.8	20	
4,4'-DDT	6.27117	2.0	16.6667	0.231000	36.2	15 - 136	21.7	20	R3
4,4'-DDT [2C]	7.22783	2.0	16.6667	0.285000	41.7	15 - 136	21.4	20	R3
Aldrin	8.38783	1.0	16.6667	ND	50.3	33 - 118	13.1	20	
Aldrin [2C]	8.96817	1.0	16.6667	ND	53.8	33 - 118	15.5	20	
alpha-BHC	7.17367	1.0	16.6667	ND	43.0	30 - 116	26.8	20	R3
alpha-BHC [2C]	7.76183	1.0	16.6667	ND	46.6	30 - 116	28.3	20	R3
alpha-Chlordane	7.31717	1.0	16.6667	ND	43.9	30 - 123	20.5	20	R3
alpha-Chlordane [2C]	7.95817	1.0	16.6667	ND	47.7	30 - 123	23.2	20	R3
beta-BHC	4.18533	1.0	16.6667	ND	25.1	24 - 121	33.2	20	R3
beta-BHC [2C]	4.81617	1.0	16.6667	ND	28.9	24 - 121	37.1	20	R3
delta-BHC	1.24050	1.0	16.6667	ND	7.44	7 - 120	35.0	20	R3



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0553 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6J0553-MSD1) - Continued

Source: 1603653-25

Prepared: 10/19/2016 Analyzed: 10/20/2016

delta-BHC [2C]	1.30183	1.0	16.6667	ND	7.81	7 - 120	34.7	20	R3
Dieldrin	3.19400	2.0	16.6667	ND	19.2	25 - 136	28.2	20	M2, R3
Dieldrin [2C]	3.34467	2.0	16.6667	ND	20.1	25 - 136	30.1	20	M2, R3
Endosulfan I	4.20383	1.0	16.6667	ND	25.2	18 - 134	28.6	20	R3
Endosulfan I [2C]	4.50050	1.0	16.6667	ND	27.0	18 - 134	34.5	20	R3
Endosulfan II	0.615667	2.0	16.6667	ND	3.69	28 - 128	15.9	20	M2, J
Endosulfan II [2C]	0.540333	2.0	16.6667	ND	3.24	28 - 128	24.2	20	M2, R3, J
Endosulfan sulfate	0.333833	2.0	16.6667	ND	2.00	5 - 145	13.7	20	M2, J
Endosulfan Sulfate [2C]	0.266000	2.0	16.6667	ND	1.60	5 - 145	12.8	20	M2, J
Endrin	3.82283	2.0	16.6667	ND	22.9	26 - 142	29.6	20	M2, R3
Endrin [2C]	4.13917	2.0	16.6667	ND	24.8	26 - 142	31.3	20	M2, R3
Endrin aldehyde	0.492667	2.0	16.6667	ND	2.96	8 - 146	29.1	20	M2, R3, J
Endrin aldehyde [2C]	0.388500	2.0	16.6667	ND	2.33	8 - 146		20	M2, J
Endrin ketone	0.390833	2.0	16.6667	ND	2.34	16 - 139	31.8	20	M2, R3, J
Endrin ketone [2C]	0.431333	2.0	16.6667	ND	2.59	16 - 139	14.8	20	M2, J
gamma-BHC	6.52333	1.0	16.6667	ND	39.1	30 - 122	29.4	20	R3
gamma-BHC [2C]	7.08433	1.0	16.6667	ND	42.5	30 - 122	31.9	20	R3
gamma-Chlordane	33.4305	1.0	16.6667	ND	201	18 - 132	25.3	20	M2, R3
gamma-Chlordane [2C]	7.08950	1.0	16.6667	ND	42.5	18 - 132	24.5	20	R3
Heptachlor	8.37150	1.0	16.6667	ND	50.2	34 - 122	15.1	20	
Heptachlor [2C]	8.94950	1.0	16.6667	ND	53.7	34 - 122	16.3	20	
Heptachlor epoxide	4.87517	1.0	16.6667	ND	29.3	21 - 135	32.7	20	R3
Heptachlor epoxide [2C]	5.06683	1.0	16.6667	ND	30.4	21 - 135	31.7	20	R3
Methoxychlor	0.869833	5.0	16.6667	ND	5.22	8 - 162	33.2	20	M2, R3, J
Methoxychlor [2C]	1.39750	5.0	16.6667	ND	8.38	8 - 162	31.6	20	R3, J
Surrogate: Decachlorobiphenyl	7.622		16.6667		45.7	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	7.938		16.6667		47.6	27 - 123			
Surrogate: Tetrachloro-m-xylene	8.395		16.6667		50.4	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	9.307		16.6667		55.8	26 - 108			



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Reported : 10/25/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0593 - GCSEMI_PCB/PEST_S

Blank (B6J0593-BLK1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0593 - GCSEMI_PCB/PEST_S (continued)

Blank (B6J0593-BLK1) - Continued

Prepared: 10/20/2016 Analyzed: 10/21/2016

Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
Surrogate: Decachlorobiphenyl	12.04		16.6667		72.2	27 - 123		
Surrogate: Decachlorobiphenyl [2C]	12.35		16.6667		74.1	27 - 123		
Surrogate: Tetrachloro-m-xylene	13.34		16.6667		80.1	26 - 108		
Surrogate: Tetrachloro-m-xylene [2C]	14.17		16.6667		85.0	26 - 108		

LCS (B6J0593-BS1)

Prepared: 10/20/2016 Analyzed: 10/21/2016

4,4'-DDD	13.4918	2.0	16.6667		81.0	53 - 125		
4,4'-DDD [2C]	13.8060	2.0	16.6667		82.8	53 - 125		
4,4'-DDE	13.3342	2.0	16.6667		80.0	54 - 113		
4,4'-DDE [2C]	13.4982	2.0	16.6667		81.0	54 - 113		
4,4'-DDT	7.55550	2.0	16.6667		45.3	25 - 127		
4,4'-DDT [2C]	7.88833	2.0	16.6667		47.3	25 - 127		
Aldrin	13.6740	1.0	16.6667		82.0	59 - 107		
Aldrin [2C]	14.0728	1.0	16.6667		84.4	59 - 107		
alpha-BHC	13.6015	1.0	16.6667		81.6	59 - 104		
alpha-BHC [2C]	14.1303	1.0	16.6667		84.8	59 - 104		
alpha-Chlordane	12.1318	1.0	16.6667		72.8	54 - 110		
alpha-Chlordane [2C]	13.0657	1.0	16.6667		78.4	54 - 110		
beta-BHC	13.4733	1.0	16.6667		80.8	57 - 103		
beta-BHC [2C]	13.5393	1.0	16.6667		81.2	57 - 103		
delta-BHC	9.49617	1.0	16.6667		57.0	16 - 120		
delta-BHC [2C]	9.80367	1.0	16.6667		58.8	16 - 120		
Dieldrin	13.3263	2.0	16.6667		80.0	61 - 109		
Dieldrin [2C]	13.8438	2.0	16.6667		83.1	61 - 109		
Endosulfan I	12.6210	1.0	16.6667		75.7	60 - 106		
Endosulfan I [2C]	13.4278	1.0	16.6667		80.6	60 - 106		
Endosulfan II	13.4092	2.0	16.6667		80.5	59 - 108		
Endosulfan II [2C]	13.0847	2.0	16.6667		78.5	59 - 108		
Endosulfan sulfate	11.2442	2.0	16.6667		67.5	54 - 110		
Endosulfan Sulfate [2C]	11.8185	2.0	16.6667		70.9	54 - 110		
Endrin	15.2745	2.0	16.6667		91.6	63 - 112		
Endrin [2C]	15.9237	2.0	16.6667		95.5	63 - 112		
Endrin aldehyde	12.4692	2.0	16.6667		74.8	64 - 119		
Endrin aldehyde [2C]	12.9195	2.0	16.6667		77.5	64 - 119		
Endrin ketone	10.7897	2.0	16.6667		64.7	54 - 115		
Endrin ketone [2C]	11.1655	2.0	16.6667		67.0	54 - 115		
gamma-BHC	13.4860	1.0	16.6667		80.9	60 - 107		
gamma-BHC [2C]	13.9808	1.0	16.6667		83.9	60 - 107		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0593 - GCSEMI_PCB/PEST_S (continued)

LCS (B6J0593-BS1) - Continued

Prepared: 10/20/2016 Analyzed: 10/21/2016

gamma-Chlordane	12.5070	1.0	16.6667		75.0	57 - 106			
gamma-Chlordane [2C]	12.1843	1.0	16.6667		73.1	57 - 106			
Heptachlor	13.1270	1.0	16.6667		78.8	54 - 114			
Heptachlor [2C]	13.3797	1.0	16.6667		80.3	54 - 114			
Heptachlor epoxide	13.1905	1.0	16.6667		79.1	61 - 106			
Heptachlor epoxide [2C]	13.2090	1.0	16.6667		79.3	61 - 106			
Methoxychlor	7.79700	5.0	16.6667		46.8	18 - 138			
Methoxychlor [2C]	8.89100	5.0	16.6667		53.3	18 - 138			
<i>Surrogate: Decachlorobiphenyl</i>	<i>12.11</i>		<i>16.6667</i>		<i>72.6</i>	<i>27 - 123</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>12.24</i>		<i>16.6667</i>		<i>73.5</i>	<i>27 - 123</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.38</i>		<i>16.6667</i>		<i>80.3</i>	<i>26 - 108</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>14.76</i>		<i>16.6667</i>		<i>88.6</i>	<i>26 - 108</i>			

Duplicate (B6J0593-DUP1)

Source: 1603653-40

Prepared: 10/20/2016 Analyzed: 10/21/2016

4,4'-DDD	ND	2.0		ND	NR			20	
4,4'-DDD [2C]	ND	2.0		ND	NR			20	
4,4'-DDE	ND	2.0		ND	NR			20	
4,4'-DDE [2C]	ND	2.0		ND	NR			20	
4,4'-DDT	ND	2.0		ND	NR			20	
4,4'-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0593 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6J0593-DUP1) - Continued

Source: 1603653-40

Prepared: 10/20/2016 Analyzed: 10/21/2016

Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	10.26		16.6667		61.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	11.02		16.6667		66.1	27 - 123			
Surrogate: Tetrachloro-m-xylene	11.30		16.6667		67.8	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	12.94		16.6667		77.7	26 - 108			

Matrix Spike (B6J0593-MS1)

Source: 1603653-19

Prepared: 10/20/2016 Analyzed: 10/21/2016

4,4'-DDD	11.0120	2.0	16.6667	ND	66.1	25 - 141			
4,4'-DDD [2C]	12.3170	2.0	16.6667	ND	73.9	25 - 141			
4,4'-DDE	13.7298	2.0	16.6667	1.18933	75.2	22 - 141			
4,4'-DDE [2C]	13.9790	2.0	16.6667	1.17250	76.8	22 - 141			
4,4'-DDT	9.23700	2.0	16.6667	0.252000	53.9	15 - 136			
4,4'-DDT [2C]	9.93883	2.0	16.6667	ND	59.6	15 - 136			
Aldrin	11.4848	1.0	16.6667	ND	68.9	33 - 118			
Aldrin [2C]	12.0952	1.0	16.6667	ND	72.6	33 - 118			
alpha-BHC	11.4002	1.0	16.6667	ND	68.4	30 - 116			
alpha-BHC [2C]	12.1622	1.0	16.6667	ND	73.0	30 - 116			
alpha-Chlordane	11.1645	1.0	16.6667	ND	67.0	30 - 123			
alpha-Chlordane [2C]	12.3807	1.0	16.6667	0.424500	71.7	30 - 123			
beta-BHC	10.8203	1.0	16.6667	ND	64.9	24 - 121			
beta-BHC [2C]	11.7417	1.0	16.6667	ND	70.4	24 - 121			
delta-BHC	8.23433	1.0	16.6667	ND	49.4	7 - 120			
delta-BHC [2C]	8.78433	1.0	16.6667	ND	52.7	7 - 120			
Dieldrin	11.8248	2.0	16.6667	ND	70.9	25 - 136			
Dieldrin [2C]	12.6080	2.0	16.6667	ND	75.6	25 - 136			
Endosulfan I	10.9282	1.0	16.6667	ND	65.6	18 - 134			
Endosulfan I [2C]	11.6763	1.0	16.6667	ND	70.1	18 - 134			
Endosulfan II	11.2970	2.0	16.6667	ND	67.8	28 - 128			
Endosulfan II [2C]	11.4468	2.0	16.6667	ND	68.7	28 - 128			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0593 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6J0593-MS1) - Continued

Source: 1603653-19

Prepared: 10/20/2016 Analyzed: 10/21/2016

Endosulfan sulfate	9.83683	2.0	16.6667	ND	59.0	5 - 145			
Endosulfan Sulfate [2C]	10.1795	2.0	16.6667	ND	61.1	5 - 145			
Endrin	13.5992	2.0	16.6667	ND	81.6	26 - 142			
Endrin [2C]	14.2945	2.0	16.6667	ND	85.8	26 - 142			
Endrin aldehyde	10.9932	2.0	16.6667	ND	66.0	8 - 146			
Endrin aldehyde [2C]	8.09717	2.0	16.6667	ND	48.6	8 - 146			
Endrin ketone	10.1940	2.0	16.6667	ND	61.2	16 - 139			
Endrin ketone [2C]	10.6193	2.0	16.6667	ND	63.7	16 - 139			
gamma-BHC	11.6287	1.0	16.6667	ND	69.8	30 - 122			
gamma-BHC [2C]	12.2953	1.0	16.6667	ND	73.8	30 - 122			
gamma-Chlordane	10.9975	1.0	16.6667	ND	66.0	18 - 132			
gamma-Chlordane [2C]	10.9847	1.0	16.6667	ND	65.9	18 - 132			
Heptachlor	11.5695	1.0	16.6667	ND	69.4	34 - 122			
Heptachlor [2C]	11.8970	1.0	16.6667	ND	71.4	34 - 122			
Heptachlor epoxide	11.1273	1.0	16.6667	ND	66.8	21 - 135			
Heptachlor epoxide [2C]	11.7560	1.0	16.6667	ND	70.5	21 - 135			
Methoxychlor	9.88667	5.0	16.6667	ND	59.3	8 - 162			
Methoxychlor [2C]	10.3402	5.0	16.6667	ND	62.0	8 - 162			
Surrogate: Decachlorobiphenyl	11.27		16.6667		67.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	11.02		16.6667		66.1	27 - 123			
Surrogate: Tetrachloro-m-xylene	12.20		16.6667		73.2	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	12.89		16.6667		77.3	26 - 108			

Matrix Spike Dup (B6J0593-MSD1)

Source: 1603653-19

Prepared: 10/20/2016 Analyzed: 10/21/2016

4,4'-DDD	10.8138	2.0	16.6667	ND	64.9	25 - 141	1.82	20	
4,4'-DDD [2C]	11.9595	2.0	16.6667	ND	71.8	25 - 141	2.95	20	
4,4'-DDE	13.2555	2.0	16.6667	1.18933	72.4	22 - 141	3.52	20	
4,4'-DDE [2C]	13.8298	2.0	16.6667	1.17250	75.9	22 - 141	1.07	20	
4,4'-DDT	9.12933	2.0	16.6667	0.252000	53.3	15 - 136	1.17	20	
4,4'-DDT [2C]	9.79817	2.0	16.6667	ND	58.8	15 - 136	1.43	20	
Aldrin	11.1847	1.0	16.6667	ND	67.1	33 - 118	2.65	20	
Aldrin [2C]	12.0902	1.0	16.6667	ND	72.5	33 - 118	0.0413	20	
alpha-BHC	11.2008	1.0	16.6667	ND	67.2	30 - 116	1.76	20	
alpha-BHC [2C]	12.2340	1.0	16.6667	ND	73.4	30 - 116	0.589	20	
alpha-Chlordane	10.8388	1.0	16.6667	ND	65.0	30 - 123	2.96	20	
alpha-Chlordane [2C]	12.2357	1.0	16.6667	0.424500	70.9	30 - 123	1.18	20	
beta-BHC	10.5890	1.0	16.6667	ND	63.5	24 - 121	2.16	20	
beta-BHC [2C]	11.8103	1.0	16.6667	ND	70.9	24 - 121	0.583	20	
delta-BHC	8.09800	1.0	16.6667	ND	48.6	7 - 120	1.67	20	
delta-BHC [2C]	8.86250	1.0	16.6667	ND	53.2	7 - 120	0.886	20	
Dieldrin	11.3790	2.0	16.6667	ND	68.3	25 - 136	3.84	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0593 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6J0593-MSD1) - Continued

Source: 1603653-19

Prepared: 10/20/2016 Analyzed: 10/21/2016

Dieldrin [2C]	12.2883	2.0	16.6667	ND	73.7	25 - 136	2.57	20	
Endosulfan I	10.6017	1.0	16.6667	ND	63.6	18 - 134	3.03	20	
Endosulfan I [2C]	11.6043	1.0	16.6667	ND	69.6	18 - 134	0.619	20	
Endosulfan II	10.7155	2.0	16.6667	ND	64.3	28 - 128	5.28	20	
Endosulfan II [2C]	11.2727	2.0	16.6667	ND	67.6	28 - 128	1.53	20	
Endosulfan sulfate	9.38550	2.0	16.6667	ND	56.3	5 - 145	4.70	20	
Endosulfan Sulfate [2C]	10.6690	2.0	16.6667	ND	64.0	5 - 145	4.70	20	
Endrin	12.8990	2.0	16.6667	ND	77.4	26 - 142	5.28	20	
Endrin [2C]	13.6987	2.0	16.6667	ND	82.2	26 - 142	4.26	20	
Endrin aldehyde	10.6188	2.0	16.6667	ND	63.7	8 - 146	3.46	20	
Endrin aldehyde [2C]	8.56433	2.0	16.6667	ND	51.4	8 - 146	5.61	20	
Endrin ketone	9.86850	2.0	16.6667	ND	59.2	16 - 139	3.24	20	
Endrin ketone [2C]	10.9818	2.0	16.6667	ND	65.9	16 - 139	3.36	20	
gamma-BHC	11.4615	1.0	16.6667	ND	68.8	30 - 122	1.45	20	
gamma-BHC [2C]	12.3628	1.0	16.6667	ND	74.2	30 - 122	0.547	20	
gamma-Chlordane	10.1577	1.0	16.6667	ND	60.9	18 - 132	7.94	20	
gamma-Chlordane [2C]	11.0538	1.0	16.6667	ND	66.3	18 - 132	0.628	20	
Heptachlor	11.3657	1.0	16.6667	ND	68.2	34 - 122	1.78	20	
Heptachlor [2C]	11.9973	1.0	16.6667	ND	72.0	34 - 122	0.840	20	
Heptachlor epoxide	10.3980	1.0	16.6667	ND	62.4	21 - 135	6.78	20	
Heptachlor epoxide [2C]	11.6743	1.0	16.6667	ND	70.0	21 - 135	0.697	20	
Methoxychlor	9.99667	5.0	16.6667	ND	60.0	8 - 162	1.11	20	
Methoxychlor [2C]	10.6760	5.0	16.6667	ND	64.1	8 - 162	3.20	20	
Surrogate: Decachlorobiphenyl	10.59		16.6667		63.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	11.16		16.6667		67.0	27 - 123			
Surrogate: Tetrachloro-m-xylene	12.12		16.6667		72.7	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	12.81		16.6667		76.8	26 - 108			



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S

Blank (B6J0620-BLK1)

Prepared: 10/21/2016 Analyzed: 10/24/2016

4,4'-DDD	ND	2.0			NR
4,4'-DDD [2C]	ND	2.0			NR
4,4'-DDE	ND	2.0			NR
4,4'-DDE [2C]	ND	2.0			NR
4,4'-DDT	ND	2.0			NR
4,4'-DDT [2C]	ND	2.0			NR
Aldrin	ND	1.0			NR
Aldrin [2C]	ND	1.0			NR
alpha-BHC	ND	1.0			NR
alpha-BHC [2C]	ND	1.0			NR
alpha-Chlordane	ND	1.0			NR
alpha-Chlordane [2C]	ND	1.0			NR
beta-BHC	ND	1.0			NR
beta-BHC [2C]	ND	1.0			NR
Chlordane	ND	8.5			NR
Chlordane [2C]	ND	8.5			NR
delta-BHC	ND	1.0			NR
delta-BHC [2C]	ND	1.0			NR
Dieldrin	ND	2.0			NR
Dieldrin [2C]	ND	2.0			NR
Endosulfan I	ND	1.0			NR
Endosulfan I [2C]	ND	1.0			NR
Endosulfan II	ND	2.0			NR
Endosulfan II [2C]	ND	2.0			NR
Endosulfan sulfate	ND	2.0			NR
Endosulfan Sulfate [2C]	ND	2.0			NR
Endrin	ND	2.0			NR
Endrin [2C]	ND	2.0			NR
Endrin aldehyde	ND	2.0			NR
Endrin aldehyde [2C]	ND	2.0			NR
Endrin ketone	ND	2.0			NR
Endrin ketone [2C]	ND	2.0			NR
gamma-BHC	ND	1.0			NR
gamma-BHC [2C]	ND	1.0			NR
gamma-Chlordane	ND	1.0			NR
gamma-Chlordane [2C]	ND	1.0			NR
Heptachlor	ND	1.0			NR
Heptachlor [2C]	ND	1.0			NR
Heptachlor epoxide	ND	1.0			NR
Heptachlor epoxide [2C]	ND	1.0			NR
Methoxychlor	ND	5.0			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S (continued)

Blank (B6J0620-BLK1) - Continued

Prepared: 10/21/2016 Analyzed: 10/24/2016

Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>11.70</i>		<i>16.6667</i>		<i>70.2</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>11.64</i>		<i>16.6667</i>		<i>69.8</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.54</i>		<i>16.6667</i>		<i>81.2</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>14.50</i>		<i>16.6667</i>		<i>87.0</i>	<i>26 - 108</i>		

LCS (B6J0620-BS1)

Prepared: 10/21/2016 Analyzed: 10/24/2016

4,4'-DDD	13.4468	2.0	16.6667		80.7	53 - 125		
4,4'-DDD [2C]	13.5698	2.0	16.6667		81.4	53 - 125		
4,4'-DDE	13.5277	2.0	16.6667		81.2	54 - 113		
4,4'-DDE [2C]	13.6522	2.0	16.6667		81.9	54 - 113		
4,4'-DDT	12.1233	2.0	16.6667		72.7	25 - 127		
4,4'-DDT [2C]	12.0803	2.0	16.6667		72.5	25 - 127		
Aldrin	13.7857	1.0	16.6667		82.7	59 - 107		
Aldrin [2C]	14.1785	1.0	16.6667		85.1	59 - 107		
alpha-BHC	13.6638	1.0	16.6667		82.0	59 - 104		
alpha-BHC [2C]	14.1423	1.0	16.6667		84.9	59 - 104		
alpha-Chlordane	13.2778	1.0	16.6667		79.7	54 - 110		
alpha-Chlordane [2C]	13.5000	1.0	16.6667		81.0	54 - 110		
beta-BHC	13.2320	1.0	16.6667		79.4	57 - 103		
beta-BHC [2C]	13.8415	1.0	16.6667		83.0	57 - 103		
delta-BHC	9.66317	1.0	16.6667		58.0	16 - 120		
delta-BHC [2C]	9.93217	1.0	16.6667		59.6	16 - 120		
Dieldrin	13.8657	2.0	16.6667		83.2	61 - 109		
Dieldrin [2C]	14.0082	2.0	16.6667		84.0	61 - 109		
Endosulfan I	13.1872	1.0	16.6667		79.1	60 - 106		
Endosulfan I [2C]	13.6178	1.0	16.6667		81.7	60 - 106		
Endosulfan II	13.1743	2.0	16.6667		79.0	59 - 108		
Endosulfan II [2C]	13.0200	2.0	16.6667		78.1	59 - 108		
Endosulfan sulfate	11.6390	2.0	16.6667		69.8	54 - 110		
Endosulfan Sulfate [2C]	11.8760	2.0	16.6667		71.3	54 - 110		
Endrin	15.8060	2.0	16.6667		94.8	63 - 112		
Endrin [2C]	16.0933	2.0	16.6667		96.6	63 - 112		
Endrin aldehyde	12.6067	2.0	16.6667		75.6	64 - 119		
Endrin aldehyde [2C]	12.7495	2.0	16.6667		76.5	64 - 119		
Endrin ketone	12.0198	2.0	16.6667		72.1	54 - 115		
Endrin ketone [2C]	12.2115	2.0	16.6667		73.3	54 - 115		
gamma-BHC	13.9272	1.0	16.6667		83.6	60 - 107		
gamma-BHC [2C]	14.3530	1.0	16.6667		86.1	60 - 107		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S (continued)

LCS (B6J0620-BS1) - Continued

Prepared: 10/21/2016 Analyzed: 10/24/2016

gamma-Chlordane	13.2565	1.0	16.6667		79.5	57 - 106			
gamma-Chlordane [2C]	13.4848	1.0	16.6667		80.9	57 - 106			
Heptachlor	14.2867	1.0	16.6667		85.7	54 - 114			
Heptachlor [2C]	14.4273	1.0	16.6667		86.6	54 - 114			
Heptachlor epoxide	13.5878	1.0	16.6667		81.5	61 - 106			
Heptachlor epoxide [2C]	13.9215	1.0	16.6667		83.5	61 - 106			
Methoxychlor	12.8972	5.0	16.6667		77.4	18 - 138			
Methoxychlor [2C]	13.4303	5.0	16.6667		80.6	18 - 138			
Surrogate: Decachlorobiphenyl	11.60		16.6667		69.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	10.76		16.6667		64.6	27 - 123			
Surrogate: Tetrachloro-m-xylene	13.50		16.6667		81.0	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	14.88		16.6667		89.3	26 - 108			

Duplicate (B6J0620-DUP1)

Source: 1603653-46

Prepared: 10/21/2016 Analyzed: 10/25/2016

4,4'-DDD	ND	2.0		ND	NR		20		
4,4'-DDD [2C]	ND	2.0		ND	NR		20		
4,4'-DDE	ND	2.0		ND	NR		20		
4,4'-DDE [2C]	ND	2.0		ND	NR		20		
4,4'-DDT	0.248167	2.0		ND	NR		20		J
4,4'-DDT [2C]	ND	2.0		ND	NR		20		
Aldrin	ND	1.0		ND	NR		20		
Aldrin [2C]	ND	1.0		ND	NR		20		
alpha-BHC	ND	1.0		ND	NR		20		
alpha-BHC [2C]	ND	1.0		ND	NR		20		
alpha-Chlordane	ND	1.0		ND	NR		20		
alpha-Chlordane [2C]	ND	1.0		ND	NR		20		
beta-BHC	ND	1.0		ND	NR		20		
beta-BHC [2C]	ND	1.0		ND	NR		20		
delta-BHC	ND	1.0		ND	NR		20		
delta-BHC [2C]	ND	1.0		ND	NR		20		
Dieldrin	ND	2.0		ND	NR		20		
Dieldrin [2C]	ND	2.0		ND	NR		20		
Endosulfan I	ND	1.0		ND	NR		20		
Endosulfan I [2C]	ND	1.0		ND	NR		20		
Endosulfan II	ND	2.0		ND	NR		20		
Endosulfan II [2C]	ND	2.0		ND	NR		20		
Endosulfan sulfate	ND	2.0		ND	NR		20		
Endosulfan Sulfate [2C]	ND	2.0		ND	NR		20		
Endrin	ND	2.0		ND	NR		20		
Endrin [2C]	ND	2.0		ND	NR		20		
Endrin aldehyde	ND	2.0		ND	NR		20		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6J0620-DUP1) - Continued

Source: 1603653-46

Prepared: 10/21/2016 Analyzed: 10/25/2016

Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	10.72		16.6667		64.3	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	11.00		16.6667		66.0	27 - 123			
Surrogate: Tetrachloro-m-xylene	10.44		16.6667		62.7	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	12.44		16.6667		74.7	26 - 108			

Matrix Spike (B6J0620-MS1)

Source: 1603653-41

Prepared: 10/21/2016 Analyzed: 10/24/2016

4,4'-DDD	4.94683	2.0	16.6667	ND	29.7	25 - 141			
4,4'-DDD [2C]	5.12533	2.0	16.6667	ND	30.8	25 - 141			
4,4'-DDE	6.88567	2.0	16.6667	ND	41.3	22 - 141			
4,4'-DDE [2C]	7.06933	2.0	16.6667	ND	42.4	22 - 141			
4,4'-DDT	5.59400	2.0	16.6667	ND	33.6	15 - 136			
4,4'-DDT [2C]	5.75400	2.0	16.6667	ND	34.5	15 - 136			
Aldrin	7.31200	1.0	16.6667	ND	43.9	33 - 118			
Aldrin [2C]	7.64433	1.0	16.6667	ND	45.9	33 - 118			
alpha-BHC	5.68383	1.0	16.6667	ND	34.1	30 - 116			
alpha-BHC [2C]	6.06167	1.0	16.6667	ND	36.4	30 - 116			
alpha-Chlordane	5.82333	1.0	16.6667	ND	34.9	30 - 123			
alpha-Chlordane [2C]	6.01633	1.0	16.6667	ND	36.1	30 - 123			
beta-BHC	3.34300	1.0	16.6667	ND	20.1	24 - 121			M2
beta-BHC [2C]	3.61883	1.0	16.6667	ND	21.7	24 - 121			M2
delta-BHC	1.32233	1.0	16.6667	ND	7.93	7 - 120			
delta-BHC [2C]	1.36133	1.0	16.6667	ND	8.17	7 - 120			
Dieldrin	2.75867	2.0	16.6667	ND	16.6	25 - 136			M2
Dieldrin [2C]	2.81533	2.0	16.6667	ND	16.9	25 - 136			M2
Endosulfan I	3.50483	1.0	16.6667	ND	21.0	18 - 134			
Endosulfan I [2C]	3.54783	1.0	16.6667	ND	21.3	18 - 134			
Endosulfan II	0.857000	2.0	16.6667	ND	5.14	28 - 128			M2, J
Endosulfan II [2C]	0.973167	2.0	16.6667	ND	5.84	28 - 128			M2, J



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6J0620-MS1) - Continued

Source: 1603653-41

Prepared: 10/21/2016 Analyzed: 10/24/2016

Endosulfan sulfate	0.611500	2.0	16.6667	ND	3.67	5 - 145			M2, J
Endosulfan Sulfate [2C]	0.602500	2.0	16.6667	ND	3.61	5 - 145			M2, J
Endrin	3.25050	2.0	16.6667	ND	19.5	26 - 142			M2
Endrin [2C]	3.34767	2.0	16.6667	ND	20.1	26 - 142			M2
Endrin aldehyde	0.637167	2.0	16.6667	ND	3.82	8 - 146			M2, J
Endrin aldehyde [2C]	0.644167	2.0	16.6667	ND	3.86	8 - 146			M2, J
Endrin ketone	0.667333	2.0	16.6667	ND	4.00	16 - 139			M2, J
Endrin ketone [2C]	0.682167	2.0	16.6667	ND	4.09	16 - 139			M2, J
gamma-BHC	5.05317	1.0	16.6667	ND	30.3	30 - 122			
gamma-BHC [2C]	5.30933	1.0	16.6667	ND	31.9	30 - 122			
gamma-Chlordane	7.27300	1.0	16.6667	ND	43.6	18 - 132			
gamma-Chlordane [2C]	5.47267	1.0	16.6667	ND	32.8	18 - 132			
Heptachlor	7.43017	1.0	16.6667	ND	44.6	34 - 122			
Heptachlor [2C]	7.79083	1.0	16.6667	ND	46.7	34 - 122			
Heptachlor epoxide	3.81633	1.0	16.6667	ND	22.9	21 - 135			
Heptachlor epoxide [2C]	3.95350	1.0	16.6667	ND	23.7	21 - 135			
Methoxychlor	1.53800	5.0	16.6667	ND	9.23	8 - 162			J
Methoxychlor [2C]	1.65367	5.0	16.6667	ND	9.92	8 - 162			J
Surrogate: Decachlorobiphenyl	6.454		16.6667		38.7	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	6.153		16.6667		36.9	27 - 123			
Surrogate: Tetrachloro-m-xylene	7.214		16.6667		43.3	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	8.185		16.6667		49.1	26 - 108			

Matrix Spike Dup (B6J0620-MSD1)

Source: 1603653-41

Prepared: 10/21/2016 Analyzed: 10/24/2016

4,4'-DDD	5.47050	2.0	16.6667	ND	32.8	25 - 141	10.1	20	
4,4'-DDD [2C]	5.58767	2.0	16.6667	ND	33.5	25 - 141	8.63	20	
4,4'-DDE	7.18517	2.0	16.6667	ND	43.1	22 - 141	4.26	20	
4,4'-DDE [2C]	7.30217	2.0	16.6667	ND	43.8	22 - 141	3.24	20	
4,4'-DDT	5.85467	2.0	16.6667	ND	35.1	15 - 136	4.55	20	
4,4'-DDT [2C]	5.97800	2.0	16.6667	ND	35.9	15 - 136	3.82	20	
Aldrin	7.69683	1.0	16.6667	ND	46.2	33 - 118	5.13	20	
Aldrin [2C]	7.96250	1.0	16.6667	ND	47.8	33 - 118	4.08	20	
alpha-BHC	6.68883	1.0	16.6667	ND	40.1	30 - 116	16.2	20	
alpha-BHC [2C]	7.05550	1.0	16.6667	ND	42.3	30 - 116	15.2	20	
alpha-Chlordane	6.34650	1.0	16.6667	ND	38.1	30 - 123	8.60	20	
alpha-Chlordane [2C]	6.48500	1.0	16.6667	ND	38.9	30 - 123	7.50	20	
beta-BHC	3.99017	1.0	16.6667	ND	23.9	24 - 121	17.7	20	M2
beta-BHC [2C]	4.29933	1.0	16.6667	ND	25.8	24 - 121	17.2	20	
delta-BHC	1.50100	1.0	16.6667	ND	9.01	7 - 120	12.7	20	
delta-BHC [2C]	1.54083	1.0	16.6667	ND	9.24	7 - 120	12.4	20	
Dieldrin	3.03950	2.0	16.6667	ND	18.2	25 - 136	9.69	20	M2



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6J0620-MSD1) - Continued

Source: 1603653-41

Prepared: 10/21/2016 Analyzed: 10/24/2016

Dieldrin [2C]	3.04183	2.0	16.6667	ND	18.3	25 - 136	7.73	20	M2
Endosulfan I	4.00117	1.0	16.6667	ND	24.0	18 - 134	13.2	20	
Endosulfan I [2C]	4.00017	1.0	16.6667	ND	24.0	18 - 134	12.0	20	
Endosulfan II	0.798167	2.0	16.6667	ND	4.79	28 - 128	7.11	20	M2, J
Endosulfan II [2C]	0.754500	2.0	16.6667	ND	4.53	28 - 128	25.3	20	M2, R3, J
Endosulfan sulfate	0.546833	2.0	16.6667	ND	3.28	5 - 145	11.2	20	M2, J
Endosulfan Sulfate [2C]	0.545000	2.0	16.6667	ND	3.27	5 - 145	10.0	20	M2, J
Endrin	3.62417	2.0	16.6667	ND	21.7	26 - 142	10.9	20	M2
Endrin [2C]	3.68050	2.0	16.6667	ND	22.1	26 - 142	9.47	20	M2
Endrin aldehyde	0.566167	2.0	16.6667	ND	3.40	8 - 146	11.8	20	M2, J
Endrin aldehyde [2C]	0.554500	2.0	16.6667	ND	3.33	8 - 146	15.0	20	M2, J
Endrin ketone	0.612333	2.0	16.6667	ND	3.67	16 - 139	8.60	20	M2, J
Endrin ketone [2C]	0.634333	2.0	16.6667	ND	3.81	16 - 139	7.27	20	M2, J
gamma-BHC	5.96533	1.0	16.6667	ND	35.8	30 - 122	16.6	20	
gamma-BHC [2C]	6.25567	1.0	16.6667	ND	37.5	30 - 122	16.4	20	
gamma-Chlordane	8.52000	1.0	16.6667	ND	51.1	18 - 132	15.8	20	
gamma-Chlordane [2C]	5.95900	1.0	16.6667	ND	35.8	18 - 132	8.51	20	
Heptachlor	7.90567	1.0	16.6667	ND	47.4	34 - 122	6.20	20	
Heptachlor [2C]	8.19783	1.0	16.6667	ND	49.2	34 - 122	5.09	20	
Heptachlor epoxide	4.40100	1.0	16.6667	ND	26.4	21 - 135	14.2	20	
Heptachlor epoxide [2C]	4.49333	1.0	16.6667	ND	27.0	21 - 135	12.8	20	
Methoxychlor	1.51283	5.0	16.6667	ND	9.08	8 - 162	1.65	20	J
Methoxychlor [2C]	1.71800	5.0	16.6667	ND	10.3	8 - 162	3.82	20	J
Surrogate: Decachlorobiphenyl	6.678		16.6667		40.1	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	6.602		16.6667		39.6	27 - 123			
Surrogate: Tetrachloro-m-xylene	7.741		16.6667		46.4	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	8.552		16.6667		51.3	26 - 108			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000
Report To : John Nordenstam
Reported : 10/25/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0553 - GCSEMI_PCB/PEST_S

Blank (B6J0553-BLK2)

Prepared: 10/19/2016 Analyzed: 10/19/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

Surrogate: Decachlorobiphenyl	12.79		16.6667		76.7	26 - 137			
Surrogate: Tetrachloro-m-xylene	16.60		16.6667		99.6	28 - 102			

LCS (B6J0553-BS2)

Prepared: 10/19/2016 Analyzed: 10/19/2016

Aroclor 1016	142.958	16	166.667		85.8	70 - 107			
Aroclor 1260	151.779	16	166.667		91.1	69 - 120			
Surrogate: Decachlorobiphenyl	12.58		16.6667		75.5	26 - 137			
Surrogate: Tetrachloro-m-xylene	16.20		16.6667		97.2	28 - 102			

Duplicate (B6J0553-DUP2)

Source: 1603653-08

Prepared: 10/19/2016 Analyzed: 10/19/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	9.878		16.6667		59.3	26 - 137			
Surrogate: Tetrachloro-m-xylene	12.80		16.6667		76.8	28 - 102			

Matrix Spike (B6J0553-MS2)

Source: 1603653-25

Prepared: 10/19/2016 Analyzed: 10/19/2016

Aroclor 1016	130.924	16	166.667	ND	78.6	34 - 120			
Aroclor 1260	143.822	16	166.667	3.80017	84.0	39 - 128			
Surrogate: Decachlorobiphenyl	11.29		16.6667		67.7	26 - 137			
Surrogate: Tetrachloro-m-xylene	14.34		16.6667		86.0	28 - 102			

Matrix Spike Dup (B6J0553-MSD2)

Source: 1603653-25

Prepared: 10/19/2016 Analyzed: 10/19/2016

Aroclor 1016	124.694	16	166.667	ND	74.8	34 - 120	4.88	20	
Aroclor 1260	139.118	16	166.667	3.80017	81.2	39 - 128	3.32	20	
Surrogate: Decachlorobiphenyl	10.83		16.6667		65.0	26 - 137			
Surrogate: Tetrachloro-m-xylene	13.86		16.6667		83.1	28 - 102			



Certificate of Analysis

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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 10/25/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S

Blank (B6J0620-BLK1)

Prepared: 10/21/2016 Analyzed: 10/24/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

<i>Surrogate: Decachlorobiphenyl</i>	11.70		16.6667		70.2	26 - 137			
<i>Surrogate: Tetrachloro-m-xylene</i>	13.54		16.6667		81.2	28 - 102			

Blank (B6J0620-BLK2)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

<i>Surrogate: Decachlorobiphenyl</i>	12.64		16.6667		75.8	26 - 137			
<i>Surrogate: Tetrachloro-m-xylene</i>	17.18		16.6667		103	28 - 102			S1

LCS (B6J0620-BS1)

Prepared: 10/21/2016 Analyzed: 10/24/2016

Aroclor 1016	ND	16			NR	70 - 107			
Aroclor 1260	ND	16			NR	69 - 120			

<i>Surrogate: Decachlorobiphenyl</i>	11.60		16.6667		69.6	26 - 137			
<i>Surrogate: Tetrachloro-m-xylene</i>	13.50		16.6667		81.0	28 - 102			

LCS (B6J0620-BS2)

Prepared: 10/21/2016 Analyzed: 10/21/2016

Aroclor 1016	143.150	16	166.667		85.9	70 - 107			
Aroclor 1260	152.250	16	166.667		91.3	69 - 120			

<i>Surrogate: Decachlorobiphenyl</i>	12.30		16.6667		73.8	26 - 137			
<i>Surrogate: Tetrachloro-m-xylene</i>	16.54		16.6667		99.2	28 - 102			

Duplicate (B6J0620-DUP2)

Source: 1603653-45

Prepared: 10/21/2016 Analyzed: 10/21/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	

<i>Surrogate: Decachlorobiphenyl</i>	8.223		16.6667		49.3	26 - 137			
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Certificate of Analysis

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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000
Report To : John Nordenstam
Reported : 10/25/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0620 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6J0620-DUP2) - Continued

Source: 1603653-45

Prepared: 10/21/2016 Analyzed: 10/21/2016

Surrogate: Tetrachloro-m-xylene 13.06 16.6667 78.3 28 - 102

Matrix Spike (B6J0620-MS1)

Source: 1603653-41

Prepared: 10/21/2016 Analyzed: 10/24/2016

Aroclor 1016 ND 16 NR 34 - 120

Aroclor 1260 ND 16 NR 39 - 128

Surrogate: Decachlorobiphenyl 6.454 16.6667 38.7 26 - 137

Surrogate: Tetrachloro-m-xylene 7.214 16.6667 43.3 28 - 102

Matrix Spike (B6J0620-MS2)

Source: 1603653-45

Prepared: 10/21/2016 Analyzed: 10/21/2016

Aroclor 1016 122.541 16 166.667 ND 73.5 34 - 120

Aroclor 1260 119.590 16 166.667 ND 71.8 39 - 128

Surrogate: Decachlorobiphenyl 9.778 16.6667 58.7 26 - 137

Surrogate: Tetrachloro-m-xylene 14.52 16.6667 87.1 28 - 102

Matrix Spike Dup (B6J0620-MSD1)

Source: 1603653-41

Prepared: 10/21/2016 Analyzed: 10/24/2016

Aroclor 1016 ND 16 NR 34 - 120 20

Aroclor 1260 ND 16 NR 39 - 128 20

Surrogate: Decachlorobiphenyl 6.678 16.6667 40.1 26 - 137

Surrogate: Tetrachloro-m-xylene 7.741 16.6667 46.4 28 - 102

Matrix Spike Dup (B6J0620-MSD2)

Source: 1603653-45

Prepared: 10/21/2016 Analyzed: 10/21/2016

Aroclor 1016 119.162 16 166.667 ND 71.5 34 - 120 2.80 20

Aroclor 1260 116.802 16 166.667 ND 70.1 39 - 128 2.36 20

Surrogate: Decachlorobiphenyl 9.376 16.6667 56.3 26 - 137

Surrogate: Tetrachloro-m-xylene 13.83 16.6667 83.0 28 - 102



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 10/25/2016

Notes and Definitions

S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

1103053

Area 2

- 1 Composite A1 – Composite Samples: B9-0.5', B10-0.5', B11-0.5', and B12-0.5' – analyze for OCPs / PCBs
- 2 Composite A2 – Composite Samples: C9-0.5', C10-0.5', C11-0.5' and C12-0.5' – analyze for OCPs
- 3 Composite A3 – Composite Samples: D9-0.5', D10-0.5', D11-0.5' and D12-0.5' – analyze for OCPs
- 4 Composite A4 – Composite Samples: E9-0.5', E10-0.5', E11-0.5' and E12-0.5' – analyze for OCPs
- 5 Composite A5 – Composite Samples: F9-0.5', F10-0.5', F11-0.5' and F12-0.5' – analyze for OCPs
- 6 Composite A6 – Composite Samples: G11-0.5' and G12-0.5' - analyze for OCPs
- 7 Composite A7 – Composite Samples: H11-0.5' and H12-0.5' - analyze for OCPs
- 8 Composite A8 – Composite Samples: I11-0.5' and I12-0.5' - analyze for OCPs and PCBs
- 9 Composite A9 – Composite Samples: H1-0.5', H2-0.5', and H3-0.5' - analyze for OCPs
- 10 Composite A10 – Composite Samples: H4-0.5' and H5-0.5' - analyze for OCPs

Area 3

- 11 Composite B1 – Composite Samples: B13-0.5', B14-0.5', and B15-0.5' - analyze for OCPs
- 12 Composite B2 – Composite Samples: B16-0.5' and B17-0.5' – analyze for OCPs
- 13 Composite B3 – Composite Samples: C13-0.5', C14-0.5', and C15-0.5' - analyze for OCPs
- 14 Composite B4 – Composite Samples: C16-0.5' and C17-0.5' – analyze for OCPs
- 15 Composite B5 – Composite Samples: D13-0.5', D14-0.5', and D15-0.5' - analyze for OCPs
- 16 Composite B6 – Composite Samples: D16-0.5' and D17-0.5' – analyze for OCPs
- 17 Composite B7 – Composite Samples: E13-0.5', E14-0.5', and E15-0.5' - analyze for OCPs
- 18 Composite B8 – Composite Samples: E16-0.5' and E17-0.5' – analyze for OCPs
- 19 Composite B9 – Composite Samples: F13-0.5', F14-0.5', and F15-0.5' - analyze for OCPs
- 20 Composite B10 – Composite Samples: F16-0.5' and F17-0.5' – analyze for OCPs
- 21 Composite B11 – Composite Samples: G13-0.5', G14-0.5', and G15-0.5' - analyze for OCPs
- 22 Composite B12 – Composite Samples: G16-0.5' and G17-0.5' – analyze for OCPs
- 23 Composite B13 – Composite Samples: H13-0.5', H14-0.5', and H15-0.5' - analyze for OCPs
- 24 Composite B14 – Composite Samples: H16-0.5' and H17-0.5' – analyze for OCPs
- 25 Composite B15 – Composite Samples: I13-0.5', I14-0.5', and I15-0.5' - analyze for OCPs / PCBs
- 26 Composite B16 – Composite Samples: I16-0.5' and I17-0.5' – analyze for OCPs
- 27 Composite B17 – Composite Samples: J14-0.5', J15-0.5', J16-0.5', and J17-0.5' - analyze for OCPs
- 28 Composite B18 – Composite Samples: K14-0.5', K15-0.5', K16-0.5', and K17-0.5' - analyze for OCPs

Area 5

- 29 Composite C1 – Composite Samples: MB-1-0.5', MB-2-0.5', and MB-3-0.5' - analyze for OCPs
- 30 Composite C2 – Composite Samples: MB-4-0.5', MB-5-0.5', and MB-6-0.5' - analyze for OCPs
- 31 Composite C3 – Composite Samples: AUD-1-0.5', AUD-2-0.5', AUD-3-0.5', and AUD-4-0.5' - analyze for OCPs / PCBs
- 32 Composite C4 – Composite Samples: AUD-5-0.5', AUD-6-0.5', AUD-7-0.5', and AUD-8-0.5' - analyze for OCPs
- 33 Composite C5 – Composite Samples: AUD-9-0.5', AUD-10-0.5', AUD-11-0.5', and AUD-12-0.5' - analyze for OCPs
- 34 Composite C6 – Composite Samples: UB-1-0.5', UB-2-0.5', and UB-3-0.5' - analyze for OCPs / PCBs
- 35 Composite C7 – Composite Samples: UB-4-0.5', UB-5-0.5', and UB-6-0.5' - analyze for OCPs
- 36 Composite C8 – Composite Samples: HVAC-1-0.5', HVAC-2-0.5', and HAC-3-0.5' - analyze for PCBs
- 37 Composite C9 – Composite Samples: AA653-1-0.5', AA653-2-0.5', AA653-3-0.5', and AA653-4-0.5' - analyze for OCPs
- 38 Composite C10 – Composite Samples: AA652-1-0.5', AA652-2-0.5', AA652-3-0.5', and AA652-4-0.5' - analyze for OCPs
- 39 Composite C11 – Composite Samples: P6-0.5', P7-0.5', Q6-0.5', and Q7-0.5' - analyze for OCPs
- 40 Composite C12 – Composite Samples: Q4-0.5', R4-0.5', S4-0.5', and T4-0.5' - analyze for OCPs
- 41 Composite C13 – Composite Samples: R7-0.5', S7-0.5', and T7-0.5' - analyze for OCPs

Carmen Aguila

From: Rachelle Arada
Sent: Thursday, October 20, 2016 10:10 AM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com
Subject: FW: LAUSD Roosevelt HS PEA - Compositing Instructions for Areas 2, 3, and 5

Importance: High

Hi Carmen,

Here's the additional compositing instructions. Please log accordingly. Thanks.

Rachelle

From: Nordenstam, John [<mailto:jnordenstam@trcsolutions.com>]
Sent: Thursday, October 20, 2016 10:00 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: RE: LAUSD Roosevelt HS PEA - Compositing Instructions for Areas 2, 3, and 5
Importance: High

Rachelle – as per our conversation yesterday, please collect aliquots from the following samples to be used as duplicate samples. Please analyze the duplicate samples as indicated below.

- 10/20/16 3
- 42 Area 2
- Composite A10 – Composite Samples: H4-0.5' and H5-0.5' - analyze for OCPs -DUPLICATE
- 43 Area 3
- Composite B10 – Composite Samples: F16-0.5' and F17-0.5' – analyze for OCPs -DUPLICATE
- 44 Area 5
- Composite C2 – Composite Samples: MB-4-0.5', MB-5-0.5', and MB-6-0.5' - analyze for OCPs - DUPLICATE
 - 45 • Composite C8 – Composite Samples: HVAC-1-0.5', HVAC-2-0.5', and HAC-3-0.5' - analyze for PCBs - DUPLICATE
 - 46 • Composite C12 – Composite Samples: Q4-0.5', R4-0.5', S4-0.5', and T4-0.5' - analyze for OCPs - DUPLICATE

We are approaching holding times on some of these samples, so we will have to move quickly on the analysis of these samples. Let me know if you have any questions

Thanks,

John Nordenstam, PG
Senior Project Geologist



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From: Nordenstam, John

Sent: Tuesday, October 18, 2016 1:42 PM

To: 'Rachelle Arada' <Rachelle@atlglobal.com>

Cc: Edric Caballero (edric@atlglobal.com) <edric@atlglobal.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>

Subject: LAUSD Roosevelt HS PEA - Compositing Instructions for Areas 2, 3, and 5

Importance: High

Rachelle – As per our conversation yesterday, attached are the compositing instructions for the samples collected from LAUSD Roosevelt HS for Areas 2, 3, and 5. These samples were collected on October 8, 9, 15, and 16, 2016. All composite samples are composed of samples collected from 0.5-foot and are being analyzed for organochlorine pesticides (OCPs) and polychlorinated biphenyls (PCBs). We are approaching holding times on some of these samples, so we will have to move quickly on the compositing and analysis of these samples. Please let me know if you have any questions regarding these samples.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603727

Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a white background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
X-8-0.5	1603727-01	Soil	10/22/16 7:40	10/22/16 18:30
X-8-2.5	1603727-02	Soil	10/22/16 7:50	10/22/16 18:30
X-9-0.5	1603727-03	Soil	10/22/16 8:00	10/22/16 18:30
X-9-2.5	1603727-04	Soil	10/22/16 8:10	10/22/16 18:30
Y-8-0.5	1603727-05	Soil	10/22/16 8:15	10/22/16 18:30
Y-8-2.5	1603727-06	Soil	10/22/16 8:25	10/22/16 18:30
Y-9-0.5	1603727-07	Soil	10/22/16 8:30	10/22/16 18:30
Y-9-2.5	1603727-08	Soil	10/22/16 8:35	10/22/16 18:30
X-10-0.5	1603727-09	Soil	10/22/16 8:40	10/22/16 18:30
X-10-2.5	1603727-10	Soil	10/22/16 8:45	10/22/16 18:30
X-11-0.5	1603727-11	Soil	10/22/16 8:43	10/22/16 18:30
X-11-2.5	1603727-12	Soil	10/22/16 8:53	10/22/16 18:30
Y-10-0.5	1603727-13	Soil	10/22/16 9:08	10/22/16 18:30
Y-10-2.5	1603727-14	Soil	10/22/16 9:15	10/22/16 18:30
Y-11-0.5	1603727-15	Soil	10/22/16 9:20	10/22/16 18:30
Y-11-2.5	1603727-16	Soil	10/22/16 9:30	10/22/16 18:30
AA923-4-0.5	1603727-17	Soil	10/22/16 9:52	10/22/16 18:30
AA923-4-2.5	1603727-18	Soil	10/22/16 9:59	10/22/16 18:30
AA923-5-0.5	1603727-19	Soil	10/22/16 10:05	10/22/16 18:30
AA923-5-2.5	1603727-20	Soil	10/22/16 10:12	10/22/16 18:30
AA923-6-0.5	1603727-21	Soil	10/22/16 10:20	10/22/16 18:30
AA923-6-2.5	1603727-22	Soil	10/22/16 10:30	10/22/16 18:30
AA923-1-0.5	1603727-23	Soil	10/22/16 10:37	10/22/16 18:30
AA923-1-2.5	1603727-24	Soil	10/22/16 10:45	10/22/16 18:30
AA923-2-0.5	1603727-25	Soil	10/22/16 11:00	10/22/16 18:30
AA923-2-2.5	1603727-26	Soil	10/22/16 11:10	10/22/16 18:30
AA923-3-0.5	1603727-27	Soil	10/22/16 11:12	10/22/16 18:30
AA923-3-2.5	1603727-28	Soil	10/22/16 11:18	10/22/16 18:30
AA1322-5-0.5	1603727-29	Soil	10/22/16 11:55	10/22/16 18:30
AA1322-5-2.5	1603727-30	Soil	10/22/16 12:30	10/22/16 18:30
AA1322-6-0.5	1603727-31	Soil	10/22/16 12:45	10/22/16 18:30
AA1322-6-2.5	1603727-32	Soil	10/22/16 12:50	10/22/16 18:30
AA1322-1-0.5	1603727-33	Soil	10/22/16 13:00	10/22/16 18:30
AA1322-1-2.5	1603727-34	Soil	10/22/16 13:10	10/22/16 18:30
AA1322-2-0.5	1603727-35	Soil	10/22/16 13:20	10/22/16 18:30
AA1322-2-2.5	1603727-36	Soil	10/22/16 13:30	10/22/16 18:30
AA1322-3-0.5	1603727-37	Soil	10/22/16 13:35	10/22/16 18:30



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AA1322-3-2.5	1603727-38	Soil	10/22/16 13:40	10/22/16 18:30
AA1322-4-0.5	1603727-39	Soil	10/22/16 13:50	10/22/16 18:30
AA1322-4-2.5	1603727-40	Soil	10/22/16 13:55	10/22/16 18:30
AA828-5-0.5	1603727-41	Soil	10/22/16 14:00	10/22/16 18:30
AA828-5-2.5	1603727-42	Soil	10/22/16 14:05	10/22/16 18:30
AA828-6-0.5	1603727-43	Soil	10/22/16 14:15	10/22/16 18:30
AA828-6-2.5	1603727-44	Soil	10/22/16 14:20	10/22/16 18:30
AA828-4-0.5	1603727-45	Soil	10/22/16 14:30	10/22/16 18:30
AA828-4-2.5	1603727-46	Soil	10/22/16 14:40	10/22/16 18:30
EB-8-/10/22/16	1603727-47	Water	10/22/16 15:12	10/22/16 18:30
Y-9-2.5 Duplicate	1603727-48	Soil	10/22/16 8:35	10/22/16 18:30
AA923-2-2.5 Duplicate	1603727-49	Soil	10/22/16 11:10	10/22/16 18:30
AA828-6-2.5 Duplicate	1603727-50	Soil	10/22/16 14:20	10/22/16 18:30
Y-8-0.5 Duplicate	1603727-51	Soil	10/22/16 8:15	10/22/16 18:30
AA923-1-0.5 Duplicate	1603727-52	Soil	10/22/16 10:37	10/22/16 18:30
AA828-5-0.5 Duplicate	1603727-53	Soil	10/22/16 14:00	10/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Client Sample ID X-8-0.5

Lab ID: 1603727-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:56	
Lead	2.2	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:56	



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Client Sample ID X-8-2.5

Lab ID: 1603727-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 13:59	
Lead	1.6	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 13:59	



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Client Sample ID X-9-0.5

Lab ID: 1603727-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 10:59	
Lead	1.1	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 10:59	



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Client Sample ID X-9-2.5

Lab ID: 1603727-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:03	
Lead	1.2	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:03	



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Client Sample ID Y-8-0.5

Lab ID: 1603727-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:02	
Lead	1.4	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:02	



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Client Sample ID Y-8-2.5

Lab ID: 1603727-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:04	
Lead	1.3	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:04	



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Client Sample ID Y-9-0.5

Lab ID: 1603727-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:06	
Lead	1.5	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:06	



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Client Sample ID Y-9-2.5

Lab ID: 1603727-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:05	
Lead	1.4	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:05	



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Client Sample ID X-10-0.5

Lab ID: 1603727-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:09	
Lead	1.3	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:09	



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Client Sample ID X-10-2.5

Lab ID: 1603727-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.85	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:06	J
Lead	1.2	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:06	



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Client Sample ID X-11-0.5

Lab ID: 1603727-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:12	
Lead	3.8	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:12	



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Client Sample ID X-11-2.5

Lab ID: 1603727-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:07	
Lead	1.6	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:07	



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Client Sample ID Y-10-0.5

Lab ID: 1603727-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:16	
Lead	0.68	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:16	J



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Client Sample ID Y-10-2.5

Lab ID: 1603727-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:09	
Lead	1.7	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:09	



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Client Sample ID Y-11-0.5

Lab ID: 1603727-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:20	
Lead	2.8	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:20	



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Client Sample ID Y-11-2.5

Lab ID: 1603727-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:10	
Lead	1.8	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:10	



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Client Sample ID AA923-4-0.5

Lab ID: 1603727-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.0	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:23	
Lead	1.4	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:23	



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Client Sample ID AA923-4-2.5

Lab ID: 1603727-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:11	
Lead	1.7	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:11	



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Client Sample ID AA923-5-0.5

Lab ID: 1603727-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:33	
Lead	2.6	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:33	



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Client Sample ID AA923-5-2.5

Lab ID: 1603727-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:12	
Lead	3.8	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:12	



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Client Sample ID AA923-6-0.5

Lab ID: 1603727-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:36	
Lead	4.8	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:36	



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Client Sample ID AA923-6-2.5

Lab ID: 1603727-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:13	
Lead	2.7	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:13	



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Client Sample ID AA923-1-0.5

Lab ID: 1603727-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:40	
Lead	1.9	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:40	



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Client Sample ID AA923-1-2.5

Lab ID: 1603727-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:17	
Lead	1.8	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:17	



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Client Sample ID AA923-2-0.5

Lab ID: 1603727-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6J0812	10/29/2016	10/31/16 11:43	
Lead	1.5	1.0	0.11	1	B6J0812	10/29/2016	10/31/16 11:43	



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Client Sample ID AA923-2-2.5

Lab ID: 1603727-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:18	
Lead	1.2	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:18	



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Client Sample ID AA923-3-0.5

Lab ID: 1603727-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 10:56	
Lead	11	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 10:56	



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Client Sample ID AA923-3-2.5

Lab ID: 1603727-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0043	11/02/2016	11/03/16 14:19	
Lead	1.8	1.0	0.11	1	B6K0043	11/02/2016	11/03/16 14:19	



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Client Sample ID AA1322-5-0.5

Lab ID: 1603727-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.6	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 14:12	
Lead	1.9	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 14:12	



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Client Sample ID AA1322-5-2.5

Lab ID: 1603727-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:25	
Lead	1.3	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:25	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
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Client Sample ID AA1322-6-0.5

Lab ID: 1603727-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 14:13	
Lead	3.0	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 14:13	



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Client Sample ID AA1322-6-2.5

Lab ID: 1603727-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:32	
Lead	1.6	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:32	



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Client Sample ID AA1322-1-0.5

Lab ID: 1603727-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.1	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:03	
Lead	1.6	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:03	



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Client Sample ID AA1322-1-2.5

Lab ID: 1603727-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 16:13	
Lead	2.1	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 16:13	



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Client Sample ID AA1322-2-0.5

Lab ID: 1603727-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:04	
Lead	1.6	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:04	



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Client Sample ID AA1322-2-2.5

Lab ID: 1603727-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:34	
Lead	1.4	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:34	



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Client Sample ID AA1322-3-0.5

Lab ID: 1603727-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.6	1.0	0.70	1	B6J0813	10/29/2016	11/01/16 12:08	
Lead	2.3	1.0	0.11	1	B6J0813	10/29/2016	11/01/16 12:08	



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Client Sample ID AA1322-3-2.5

Lab ID: 1603727-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 16:14	
Lead	1.3	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 16:14	



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Client Sample ID AA1322-4-0.5

Lab ID: 1603727-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6J0813	10/29/2016	11/01/16 11:02	
Lead	1.8	1.0	0.11	1	B6J0813	10/29/2016	11/01/16 11:02	



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Reported : 11/08/2016

Client Sample ID AA1322-4-2.5

Lab ID: 1603727-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:36	
Lead	1.8	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:36	



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Client Sample ID AA828-5-0.5

Lab ID: 1603727-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:30	
Lead	2.0	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:30	



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Client Sample ID AA828-5-2.5

Lab ID: 1603727-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:37	
Lead	1.3	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:37	



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Client Sample ID AA828-6-0.5

Lab ID: 1603727-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:31	
Lead	1.8	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:31	



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Client Sample ID AA828-6-2.5

Lab ID: 1603727-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:38	
Lead	1.9	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:38	



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Client Sample ID AA828-4-0.5

Lab ID: 1603727-45

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:13	
Lead	16	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:13	



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Client Sample ID AA828-4-2.5

Lab ID: 1603727-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:39	
Lead	1.4	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:39	



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Report To : John Nordenstam
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Client Sample ID EB-8-/10/22/16

Lab ID: 1603727-47

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0749	10/27/2016	10/28/16 10:32	
Lead	ND	0.0050	0.0028	1	B6J0749	10/27/2016	10/28/16 10:32	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
4,4'-DDE	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
4,4'-DDT	ND	0.05	0.004	1	B6J0756	10/27/2016	10/27/16 13:57	
Aldrin	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 13:57	
alpha-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 13:57	
alpha-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
beta-BHC	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Chlordane	ND	0.25	0.03	1	B6J0756	10/27/2016	10/27/16 13:57	
delta-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 13:57	
Dieldrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Endosulfan I	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Endosulfan II	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Endrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Endrin aldehyde	ND	0.05	0.006	1	B6J0756	10/27/2016	10/27/16 13:57	
Endrin ketone	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
gamma-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 13:57	
gamma-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Heptachlor	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 13:57	
Methoxychlor	ND	0.25	0.004	1	B6J0756	10/27/2016	10/27/16 13:57	
Toxaphene	ND	2.5	0.23	1	B6J0756	10/27/2016	10/27/16 13:57	
Surrogate: Decachlorobiphenyl	31.2 %		7 - 127		B6J0756	10/27/2016	10/27/16 13:57	
Surrogate: Tetrachloro-m-xylene	63.1 %		14 - 122		B6J0756	10/27/2016	10/27/16 13:57	



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Client Sample ID EB-8-/10/22/16

Lab ID: 1603727-47

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1221	ND	1.0	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1232	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1242	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1248	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1254	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1260	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1262	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Aroclor 1268	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 11:58	
Surrogate: Decachlorobiphenyl	46.6 %		7 - 127		B6J0756	10/27/2016	10/28/16 11:58	
Surrogate: Tetrachloro-m-xylene	87.2 %		14 - 122		B6J0756	10/27/2016	10/28/16 11:58	



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Client Sample ID Y-9-2.5 Duplicate

Lab ID: 1603727-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0209	11/05/2016	11/07/16 14:14	
Lead	1.3	1.0	0.11	1	B6K0209	11/05/2016	11/07/16 14:14	



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Client Sample ID AA923-2-2.5 Duplicate
Lab ID: 1603727-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 14:24	
Lead	1.0	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 14:24	



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Client Sample ID AA828-6-2.5 Duplicate

Lab ID: 1603727-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 14:44	
Lead	1.4	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 14:44	



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Client Sample ID Y-8-0.5 Duplicate

Lab ID: 1603727-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 14:48	
Lead	1.7	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 14:48	



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Client Sample ID AA923-1-0.5 Duplicate

Lab ID: 1603727-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 14:51	
Lead	1.9	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 14:51	



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Client Sample ID AA828-5-0.5 Duplicate
Lab ID: 1603727-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 14:54	
Lead	1.9	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 14:54	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0749 - EPA 3010A_W

Blank (B6J0749-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0749-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	0.916230	0.010	1.00000		91.6	80 - 120			
Lead	0.944383	0.0050	1.00000		94.4	80 - 120			

Duplicate (B6J0749-DUP1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0749-MS1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.22285	0.010	2.50000	ND	88.9	74 - 123			
Lead	2.27123	0.0050	2.50000	ND	90.8	78 - 109			

Matrix Spike Dup (B6J0749-MSD1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.28565	0.010	2.50000	ND	91.4	74 - 123	2.79	20	
Lead	2.33496	0.0050	2.50000	ND	93.4	78 - 109	2.77	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0812 - EPA 3050B_S

Blank (B6J0812-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0812-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	40.7673	1.0	50.0000		81.5	80 - 120			
Lead	43.9380	1.0	50.0000		87.9	80 - 120			

Duplicate (B6J0812-DUP1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	2.12716	1.0		2.81603	NR		27.9	20	R
Lead	17.6780	1.0		21.7051	NR		20.5	20	R

Matrix Spike (B6J0812-MS1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	56.9830	1.0	125.628	2.81603	43.1	59 - 103			M1
Lead	80.4784	1.0	125.628	21.7051	46.8	34 - 129			

Matrix Spike Dup (B6J0812-MSD1)

Source: 1603544-26

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	43.2135	1.0	125.628	2.81603	32.2	59 - 103	27.5	20	M1, R
Lead	68.8367	1.0	125.628	21.7051	37.5	34 - 129	15.6	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0813 - EPA 3050B_S

Blank (B6J0813-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0813-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	48.2736	1.0	50.0000		96.5	80 - 120			
Lead	50.5006	1.0	50.0000		101	80 - 120			

Duplicate (B6J0813-DUP1)

Source: 1603727-27

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	2.39233	1.0		3.17500	NR		28.1	20	R
Lead	2.97771	1.0		11.0596	NR		115	20	R

Matrix Spike (B6J0813-MS1)

Source: 1603727-27

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	90.0671	1.0	125.000	3.17500	69.5	59 - 103			
Lead	88.6304	1.0	125.000	11.0596	62.1	34 - 129			

Matrix Spike Dup (B6J0813-MSD1)

Source: 1603727-27

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	89.8784	1.0	125.000	3.17500	69.4	59 - 103	0.210	20	
Lead	87.9738	1.0	125.000	11.0596	61.5	34 - 129	0.744	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0043 - EPA 3050B_S

Blank (B6K0043-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0043-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	44.8666	1.0	50.0000		89.7	80 - 120			
Lead	47.2677	1.0	50.0000		94.5	80 - 120			

Duplicate (B6K0043-DUP1)

Source: 1603634-45

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	1.86134	1.0		2.01360	NR		7.86	20	
Lead	3.32168	1.0		3.44296	NR		3.59	20	

Matrix Spike (B6K0043-MS1)

Source: 1603634-45

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	102.284	1.0	125.000	2.01360	80.2	59 - 103			
Lead	105.913	1.0	125.000	3.44296	82.0	34 - 129			

Matrix Spike Dup (B6K0043-MSD1)

Source: 1603634-45

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	99.7378	1.0	125.000	2.01360	78.2	59 - 103	2.52	20	
Lead	103.178	1.0	125.000	3.44296	79.8	34 - 129	2.62	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0044 - EPA 3050B_S

Blank (B6K0044-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0044-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	50.8298	1.0	50.0000		102	80 - 120			
Lead	53.5886	1.0	50.0000		107	80 - 120			

Duplicate (B6K0044-DUP1)

Source: 1603727-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	4.00932	1.0		3.40448	NR		16.3	20	
Lead	1.57294	1.0		1.25545	NR		22.5	20	R

Matrix Spike (B6K0044-MS1)

Source: 1603727-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	110.643	1.0	125.000	3.40448	85.8	59 - 103			
Lead	111.316	1.0	125.000	1.25545	88.0	34 - 129			

Matrix Spike Dup (B6K0044-MSD1)

Source: 1603727-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	114.071	1.0	125.000	3.40448	88.5	59 - 103	3.05	20	
Lead	113.984	1.0	125.000	1.25545	90.2	34 - 129	2.37	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0209 - EPA 3050B_S

Blank (B6K0209-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.174437	1.0			NR				J

LCS (B6K0209-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	42.6521	1.0	50.0000		85.3	80 - 120			
Lead	47.2810	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K0209-DUP1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.92740	1.0		2.61448	NR		11.3	20	
Lead	30.9422	1.0		27.9383	NR		10.2	20	

Matrix Spike (B6K0209-MS1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	97.9575	1.0	125.000	2.61448	76.3	59 - 103			
Lead	128.472	1.0	125.000	27.9383	80.4	34 - 129			

Matrix Spike Dup (B6K0209-MSD1)

Source: 1603543-18

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	91.8844	1.0	125.000	2.61448	71.4	59 - 103	6.40	20	
Lead	119.983	1.0	125.000	27.9383	73.6	34 - 129	6.83	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0210 - EPA 3050B_S

Blank (B6K0210-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.178046	1.0			NR				J

LCS (B6K0210-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	43.2665	1.0	50.0000		86.5	80 - 120			
Lead	48.1315	1.0	50.0000		96.3	80 - 120			

Duplicate (B6K0210-DUP1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	4.71497	1.0		3.84095	NR		20.4	20	R
Lead	1.44785	1.0		1.04040	NR		32.8	20	R

Matrix Spike (B6K0210-MS1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	111.199	1.0	125.000	3.84095	85.9	59 - 103			
Lead	115.917	1.0	125.000	1.04040	91.9	34 - 129			

Matrix Spike Dup (B6K0210-MSD1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	108.492	1.0	125.000	3.84095	83.7	59 - 103	2.46	20	
Lead	113.096	1.0	125.000	1.04040	89.6	34 - 129	2.46	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0756-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3321		0.500000		66.4	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3389		0.500000		67.8	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000		77.2	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4132		0.500000		82.6	14 - 122		

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.389980	0.05	0.500000		78.0	59 - 109		
4,4'-DDD [2C]	0.400360	0.05	0.500000		80.1	59 - 109		
4,4'-DDE	0.382070	0.05	0.500000		76.4	63 - 101		
4,4'-DDE [2C]	0.393755	0.05	0.500000		78.8	63 - 101		
4,4'-DDT	0.312965	0.05	0.500000		62.6	36 - 96		
4,4'-DDT [2C]	0.306415	0.05	0.500000		61.3	36 - 96		
Aldrin	0.395040	0.02	0.500000		79.0	64 - 96		
Aldrin [2C]	0.405005	0.02	0.500000		81.0	64 - 96		
alpha-BHC	0.393195	0.02	0.500000		78.6	63 - 92		
alpha-BHC [2C]	0.408610	0.02	0.500000		81.7	63 - 92		
alpha-Chlordane	0.381445	0.02	0.500000		76.3	63 - 101		
alpha-Chlordane [2C]	0.387965	0.02	0.500000		77.6	63 - 101		
beta-BHC	0.383430	0.02	0.500000		76.7	58 - 95		
beta-BHC [2C]	0.397770	0.02	0.500000		79.6	58 - 95		
delta-BHC	0.279005	0.02	0.500000		55.8	37 - 107		
delta-BHC [2C]	0.286245	0.02	0.500000		57.2	37 - 107		
Dieldrin	0.397825	0.05	0.500000		79.6	62 - 102		
Dieldrin [2C]	0.400380	0.05	0.500000		80.1	62 - 102		
Endosulfan I	0.380945	0.02	0.500000		76.2	61 - 97		
Endosulfan I [2C]	0.389895	0.02	0.500000		78.0	61 - 97		
Endosulfan II	0.380440	0.05	0.500000		76.1	61 - 103		
Endosulfan II [2C]	0.377870	0.05	0.500000		75.6	61 - 103		
Endosulfan sulfate	0.334510	0.05	0.500000		66.9	60 - 112		
Endosulfan Sulfate [2C]	0.338545	0.05	0.500000		67.7	60 - 112		
Endrin	0.442345	0.05	0.500000		88.5	62 - 103		
Endrin [2C]	0.452120	0.05	0.500000		90.4	62 - 103		
Endrin aldehyde	0.361285	0.05	0.500000		72.3	64 - 116		
Endrin aldehyde [2C]	0.372550	0.05	0.500000		74.5	64 - 116		
Endrin ketone	0.346515	0.05	0.500000		69.3	56 - 113		
Endrin ketone [2C]	0.349980	0.05	0.500000		70.0	56 - 113		
gamma-BHC	0.401575	0.02	0.500000		80.3	64 - 95		
gamma-BHC [2C]	0.413670	0.02	0.500000		82.7	64 - 95		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0756-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

gamma-Chlordane	0.379495	0.02	0.500000		75.9	64 - 99			
gamma-Chlordane [2C]	0.386585	0.02	0.500000		77.3	64 - 99			
Heptachlor	0.401695	0.02	0.500000		80.3	64 - 93			
Heptachlor [2C]	0.406790	0.02	0.500000		81.4	64 - 93			
Heptachlor epoxide	0.389420	0.02	0.500000		77.9	65 - 98			
Heptachlor epoxide [2C]	0.396635	0.02	0.500000		79.3	65 - 98			
Methoxychlor	0.326050	0.25	0.500000		65.2	0 - 141			
Methoxychlor [2C]	0.329225	0.25	0.500000		65.8	0 - 141			
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3537</i>		<i>0.500000</i>		<i>70.7</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3480</i>		<i>0.500000</i>		<i>69.6</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.3958</i>		<i>0.500000</i>		<i>79.2</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4328</i>		<i>0.500000</i>		<i>86.6</i>	<i>14 - 122</i>			

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.382190	0.05	0.500000		76.4	59 - 109	2.02	20	
4,4'-DDD [2C]	0.396440	0.05	0.500000		79.3	59 - 109	0.984	20	
4,4'-DDE	0.374120	0.05	0.500000		74.8	63 - 101	2.10	20	
4,4'-DDE [2C]	0.388570	0.05	0.500000		77.7	63 - 101	1.33	20	
4,4'-DDT	0.301065	0.05	0.500000		60.2	36 - 96	3.88	20	
4,4'-DDT [2C]	0.295700	0.05	0.500000		59.1	36 - 96	3.56	20	
Aldrin	0.387615	0.02	0.500000		77.5	64 - 96	1.90	20	
Aldrin [2C]	0.401730	0.02	0.500000		80.3	64 - 96	0.812	20	
alpha-BHC	0.384635	0.02	0.500000		76.9	63 - 92	2.20	20	
alpha-BHC [2C]	0.401870	0.02	0.500000		80.4	63 - 92	1.66	20	
alpha-Chlordane	0.373095	0.02	0.500000		74.6	63 - 101	2.21	20	
alpha-Chlordane [2C]	0.383550	0.02	0.500000		76.7	63 - 101	1.14	20	
beta-BHC	0.374495	0.02	0.500000		74.9	58 - 95	2.36	20	
beta-BHC [2C]	0.391100	0.02	0.500000		78.2	58 - 95	1.69	20	
delta-BHC	0.273035	0.02	0.500000		54.6	37 - 107	2.16	20	
delta-BHC [2C]	0.281320	0.02	0.500000		56.3	37 - 107	1.74	20	
Dieldrin	0.389230	0.05	0.500000		77.8	62 - 102	2.18	20	
Dieldrin [2C]	0.395445	0.05	0.500000		79.1	62 - 102	1.24	20	
Endosulfan I	0.373770	0.02	0.500000		74.8	61 - 97	1.90	20	
Endosulfan I [2C]	0.385820	0.02	0.500000		77.2	61 - 97	1.05	20	
Endosulfan II	0.371020	0.05	0.500000		74.2	61 - 103	2.51	20	
Endosulfan II [2C]	0.370560	0.05	0.500000		74.1	61 - 103	1.95	20	
Endosulfan sulfate	0.323020	0.05	0.500000		64.6	60 - 112	3.49	20	
Endosulfan Sulfate [2C]	0.319495	0.05	0.500000		63.9	60 - 112	5.79	20	
Endrin	0.427475	0.05	0.500000		85.5	62 - 103	3.42	20	
Endrin [2C]	0.441245	0.05	0.500000		88.2	62 - 103	2.43	20	
Endrin aldehyde	0.352420	0.05	0.500000		70.5	64 - 116	2.48	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Endrin aldehyde [2C]	0.364575	0.05	0.500000		72.9	64 - 116	2.16	20	
Endrin ketone	0.334495	0.05	0.500000		66.9	56 - 113	3.53	20	
Endrin ketone [2C]	0.326635	0.05	0.500000		65.3	56 - 113	6.90	20	
gamma-BHC	0.392935	0.02	0.500000		78.6	64 - 95	2.17	20	
gamma-BHC [2C]	0.407880	0.02	0.500000		81.6	64 - 95	1.41	20	
gamma-Chlordane	0.371900	0.02	0.500000		74.4	64 - 99	2.02	20	
gamma-Chlordane [2C]	0.382560	0.02	0.500000		76.5	64 - 99	1.05	20	
Heptachlor	0.394790	0.02	0.500000		79.0	64 - 93	1.73	20	
Heptachlor [2C]	0.403430	0.02	0.500000		80.7	64 - 93	0.829	20	
Heptachlor epoxide	0.382100	0.02	0.500000		76.4	65 - 98	1.90	20	
Heptachlor epoxide [2C]	0.393685	0.02	0.500000		78.7	65 - 98	0.747	20	
Methoxychlor	0.311510	0.25	0.500000		62.3	0 - 141	4.56	20	
Methoxychlor [2C]	0.300570	0.25	0.500000		60.1	0 - 141	9.10	20	
Surrogate: Decachlorobiphenyl	0.3365		0.500000		67.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3304		0.500000		66.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.3868		0.500000		77.4	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4238		0.500000		84.8	14 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				
Surrogate: Decachlorobiphenyl	0.3321		0.500000		66.4	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000		77.2	14 - 122			

Blank (B6J0756-BLK2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				
Surrogate: Decachlorobiphenyl	0.4919		0.500000		98.4	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4931		0.500000		98.6	14 - 122			

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96			
Aroclor 1260	ND	0.50			NR	64 - 106			
Surrogate: Decachlorobiphenyl	0.3537		0.500000		70.7	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.3958		0.500000		79.2	14 - 122			

LCS (B6J0756-BS2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	4.15151	0.50	5.00000		83.0	68 - 96			
Aroclor 1260	4.42908	0.50	5.00000		88.6	64 - 106			
Surrogate: Decachlorobiphenyl	0.4784		0.500000		95.7	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4737		0.500000		94.7	14 - 122			

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96		20	
Aroclor 1260	ND	0.50			NR	64 - 106		20	
Surrogate: Decachlorobiphenyl	0.3365		0.500000		67.3	7 - 127			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Surrogate: Tetrachloro-m-xylene 0.3868 0.500000 77.4 14 - 122

LCS Dup (B6J0756-BSD2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	4.39845	0.50	5.00000	88.0	68 - 96	5.78	20
Aroclor 1260	4.68570	0.50	5.00000	93.7	64 - 106	5.63	20
Surrogate: Decachlorobiphenyl	0.4810		0.500000	96.2	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.4868		0.500000	97.4	14 - 122		



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCO Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/>	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	<input type="checkbox"/>	3. CONTAINER INTACT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Company: **TRC Solutions Inc** Address: **9685 Research Drive** City: **Irvine** State: **CA** Zip: **92618**

Attn: **John Nordenstam** Email: **john.nordenstam@trcsolutions.com**

Company: **TRC Solutions Inc** Address: **9685 Research Drive** City: **Irvine** State: **CA** Zip: **92618**

City: **Irvine** State: **CA** Zip: **92618**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1603727-1	X-8-0.5		10-22-16	0740	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
2	1	X-8-2.5		10-22-16	0750	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
3	1	X-9-0.5		10-22-16	0800	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
4	1	X-9-2.5		10-22-16	0810	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
5	1	Y-8-0.5		10-22-16	0815	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
6	1	Y-8-2.5		10-22-16	0825	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
7	1	Y-9-0.5		10-22-16	0830	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
8	1	Y-9-2.5		10-22-16	0835	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
9	1	X-10-0.5		10-22-16	0840	TO-15	SOIL / SEDIMENT / SLUDGE	51	4
10	1	X-10-2.5		10-22-16	0845	TO-15	SOIL / SEDIMENT / SLUDGE	51	4

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **ROSS SURGENCY** Signature: **ROSS SURGENCY**

Relinquished by: (Signature and Printed Name) **Wardan Howe** Date: **10/22/16** Time: **1545**

Relinquished by: (Signature and Printed Name) **John Nordenstam** Date: **10/27/16** Time: **1830**

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

Method of Transport		Simple Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VSA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER IMPACT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Company: **TRC Solutions Inc** Address: **9685 Research Drive** Tel: **949 341-7467**
City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**
SEND REPORT TO: **John Nordenstam jnordenstam@trcsolutions.com** Email: **949-727-7311**
SEND INVOICE TO: **TRC Solutions Inc** Email: **949-727-7311**

Attn: **John Nordenstam** Email: **jnordenstam@trcsolutions.com**
Company: **TRC Solutions Inc**
Address: **9685 Research Dr**
City: **Irvine** State: **CA** Zip: **92618**

Project Name: **LAUSD - Roosevelt HS** Quote No: **E16I131**
Project No.: **265642-0000/TA002** DO#: **100816**
Sampler: **Warren Howe**

ITEM	Lab No.	Sample Description		Date	Time	Encircle or Write Requested Analysis										Encircle Sample Matrix				Container		REMARKS					
		Sample ID / Location				8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	6010 / 7000 (Title 22 Metals)	TO-15	As EPA 6010B	Pb EPA 6010B		SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT		#	Type: 1=Tube, 2=VOA, 3=Canister, 5=Jar, 6=Bed, 7=Canister, 4=Pin, 3=Metal	Material: 1=Glass, 2=Plastic, 3=Metal	Preservative: 1=HCl, 2=HNO3, 3=H2SO4, 4=As, 5=Zn (As), 6=NaOH, 7=NA2S2O3	QA/QC
1	1603727-01	X-11 - 0.5		10/22/16	0843									X	X		X					51	51	4	4	4	hold
2	-11	X-11 - 2.5		10/22/16	0853									X	X		X					51	51	4	4	4	hold
3	-13	Y-10 - 0.5		10/22/16	0908									X	X		X					51	51	4	4	4	hold
4	-14	Y-10 - 2.5		10/22/16	0915									X	X		X					51	51	4	4	4	hold
5	-15	Y-11 - 0.5		10/22/16	0920									X	X		X					51	51	4	4	4	hold
6	-16	Y-11 - 2.5		10/22/16	0930									X	X		X					51	51	4	4	4	hold
7	-17	AA923-4 - 0.5		10/22/16	0952									X	X		X					51	51	4	4	4	hold
8	-18	AA923-4 - 2.5		10/22/16	0959									X	X		X					51	51	4	4	4	hold
9	-19	AA923-5 - 0.5		10/22/16	1005									X	X		X					51	51	4	4	4	hold
10	-20	AA923-5 - 2.5		10/22/16	1012									X	X		X					51	51	4	4	4	hold

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Ross SUGANEY** Signature: **Ross SUGANEY**
Date: **10/22/16** Time: **1545**

Received by: (Signature and Printed Name) **John Nordenstam** Date: **10/22/16** Time: **1545**
Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/22/16** Time: **1545**
Relinquished by: (Signature and Printed Name) **John Nordenstam** Date: **10/22/16** Time: **1545**

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD
Page 4 of 5

For Laboratory Use Only
ATLCC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
Y	N	Y	N
<input type="checkbox"/> Client	<input checked="" type="checkbox"/> ATL	<input type="checkbox"/> Condition	<input type="checkbox"/> Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH DOC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (N2A)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C:
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/>

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc
Address: 9685 Research Drive
City: Irvine
State: CA
Zip: 92618

Attn: John Nordenstam
Email: jnordenstam@trcsolutions.com
Company: TRC Solutions Inc
Address: 9685 Research Drive
City: Irvine
State: CA
Zip: 92618

Quote No: ELB131
Project No: 265642.000/TA0200.#:
Sample: Warren Howe 100816

Project Name:		Quote No:		Special Instructions/Comments:	
LAUSD-Rosevelt HS		ELB131			
Project No:		265642.000/TA0200.#:			
Sample:		Warren Howe 100816			
ITEM	Lab No.	Sample Description		Encircle or Write Requested Analysis	
		Sample ID / Location	Time		
1	1603727-31	AA1322-6-0.5	10/22/16 1245	8260 / 624 (Volatiles)	8015 (GRO)
2	-32	AA1322-6-2.5	10/22/16 1250	8015 (DRO)	8270 (Semi-volatiles)
3	-33	AA1322-1-0.5	10/22/16 1300	8082 (Organochlorine Pesticides)	6010 / 7000 (Title 22 Metals)
4	-34	AA1322-1-2.5	10/22/16 1310	TO-15	AS EPA 6010B
5	-35	AA1322-2-0.5	10/22/16 1320	XX	XX
6	-36	AA1322-2-2.5	10/22/16 1330	XX	XX
7	-37	AA1322-3-0.5	10/22/16 1335	XX	XX
8	-38	AA1322-3-2.5	10/22/16 1340	XX	XX
9	-39	AA1322-4-0.5	10/22/16 1350	XX	XX
10	-40	AA1322-4-2.5	10/22/16 1355	XX	XX

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: Ross Suranay
Signature: Dan Suranay

Submitter Print Name: Ross Suranay

Relinquished by: (Signature and Printed Name) Dan Suranay
Relinquished by: (Signature and Printed Name) Dan Suranay
Relinquished by: (Signature and Printed Name) Dan Suranay

Date: 10/22/16
Date: 10/22/16
Date: 10/22/16

Time: 1545
Time: 1545
Time: 1545

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:56 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 0.5 feet)

Rachelle,

For the soil samples collected at 0.5 feet on October 22/23, 2016, please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 22, 2016 (46 samples at 0.5 feet)

- Sample W-14-0.5
- Sample X-17-0.5
- Sample Y-8-0.5
- Sample AA923-1-0.5
- Sample AA828-5-0.5

Samples collected on October 23, 2016 (39 samples at 0.5 feet)

- Sample AA651/683-3-0.5
- Sample AA955-3-0.5
- Sample AA831-3-0.5
- Sample D-8-0.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603729

Client Reference : LAUSD ROOSEVELT HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
V-13-0.5	1603729-01	Soil	10/22/16 8:50	10/22/16 18:30
V-13-2.5	1603729-02	Soil	10/22/16 9:00	10/22/16 18:30
V-14-0.5	1603729-03	Soil	10/22/16 8:40	10/22/16 18:30
V-14-2.5	1603729-04	Soil	10/22/16 8:50	10/22/16 18:30
V-15-0.5	1603729-05	Soil	10/22/16 9:00	10/22/16 18:30
V-15-2.5	1603729-06	Soil	10/22/16 9:10	10/22/16 18:30
V-16-0.5	1603729-07	Soil	10/22/16 9:25	10/22/16 18:30
V-16-2.5	1603729-08	Soil	10/22/16 9:35	10/22/16 18:30
V-17-0.5	1603729-09	Soil	10/22/16 9:20	10/22/16 18:30
V-17-2.5	1603729-10	Soil	10/22/16 9:30	10/22/16 18:30
W-12-0.5	1603729-11	Soil	10/22/16 11:20	10/22/16 18:30
W-12-2.5	1603729-12	Soil	10/22/16 11:30	10/22/16 18:30
W-13-0.5	1603729-13	Soil	10/22/16 10:50	10/22/16 18:30
W-13-2.5	1603729-14	Soil	10/22/16 11:00	10/22/16 18:30
W-14-0.5	1603729-15	Soil	10/22/16 10:55	10/22/16 18:30
W-14-2.5	1603729-16	Soil	10/22/16 11:05	10/22/16 18:30
W-15-0.5	1603729-17	Soil	10/22/16 10:30	10/22/16 18:30
W-15-2.5	1603729-18	Soil	10/22/16 10:40	10/22/16 18:30
W-16-0.5	1603729-19	Soil	10/22/16 10:00	10/22/16 18:30
W-16-2.5	1603729-20	Soil	10/22/16 10:10	10/22/16 18:30
W-17-0.5	1603729-21	Soil	10/22/16 10:20	10/22/16 18:30
W-17-2.5	1603729-22	Soil	10/22/16 10:30	10/22/16 18:30
X-12-0.5	1603729-23	Soil	10/22/16 11:40	10/22/16 18:30
X-12-2.5	1603729-24	Soil	10/22/16 11:50	10/22/16 18:30
X-13-0.5	1603729-25	Soil	10/22/16 11:45	10/22/16 18:30
X-13-2.5	1603729-26	Soil	10/22/16 11:55	10/22/16 18:30
X-14-0.5	1603729-27	Soil	10/22/16 12:00	10/22/16 18:30
X-14-2.5	1603729-28	Soil	10/22/16 12:10	10/22/16 18:30
X-15-0.5	1603729-29	Soil	10/22/16 12:05	10/22/16 18:30
X-15-2.5	1603729-30	Soil	10/22/16 12:15	10/22/16 18:30
X-16-0.5	1603729-31	Soil	10/22/16 12:35	10/22/16 18:30
X-16-2.5	1603729-32	Soil	10/22/16 12:45	10/22/16 18:30
X-17-0.5	1603729-33	Soil	10/22/16 12:40	10/22/16 18:30
X-17-2.5	1603729-34	Soil	10/22/16 12:50	10/22/16 18:30
Y-12-0.5	1603729-35	Soil	10/22/16 12:55	10/22/16 18:30
Y-12-2.5	1603729-36	Soil	10/22/16 13:05	10/22/16 18:30
Y-13-0.5	1603729-37	Soil	10/22/16 13:20	10/22/16 18:30



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Y-13-2.5	1603729-38	Soil	10/22/16 13:30	10/22/16 18:30
Y-14-0.5	1603729-39	Soil	10/22/16 13:30	10/22/16 18:30
Y-14-2.5	1603729-40	Soil	10/22/16 13:40	10/22/16 18:30
Y-15-0.5	1603729-41	Soil	10/22/16 13:00	10/22/16 18:30
Y-15-2.5	1603729-42	Soil	10/22/16 13:10	10/22/16 18:30
Y-16-0.5	1603729-43	Soil	10/22/16 13:05	10/22/16 18:30
Y-16-2.5	1603729-44	Soil	10/22/16 13:15	10/22/16 18:30
Y-17-0.5	1603729-45	Soil	10/22/16 13:15	10/22/16 18:30
Y-17-2.5	1603729-46	Soil	10/22/16 13:25	10/22/16 18:30
EB-9-10/22/16	1603729-47	Water	10/22/16 15:30	10/22/16 18:30
EB-10-10/22/16	1603729-48	Water	10/22/16 15:35	10/22/16 18:30
W-15-2.5 Duplicate	1603729-49	Soil	10/22/16 10:40	10/22/16 18:30
Y-12-2.5 Duplicate	1603729-50	Soil	10/22/16 13:05	10/22/16 18:30
W-14-0.5 Duplicate	1603729-51	Soil	10/22/16 10:55	10/22/16 18:30
X-17-0.5 Duplicate	1603729-52	Soil	10/22/16 12:40	10/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Client Sample ID V-13-0.5

Lab ID: 1603729-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:14	
Lead	6.3	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:14	



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Client Sample ID V-13-2.5

Lab ID: 1603729-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:41	
Lead	2.0	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:41	



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Client Sample ID V-14-0.5

Lab ID: 1603729-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:15	
Lead	54	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:15	



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Client Sample ID V-14-2.5

Lab ID: 1603729-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:44	
Lead	4.1	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:44	



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Client Sample ID V-15-0.5

Lab ID: 1603729-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:16	
Lead	46	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:16	



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Client Sample ID V-15-2.5

Lab ID: 1603729-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:45	
Lead	27	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:45	



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Client Sample ID V-16-0.5

Lab ID: 1603729-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:17	
Lead	390	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:17	



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Client Sample ID V-16-2.5

Lab ID: 1603729-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6K0044	11/02/2016	11/03/16 14:47	
Lead	25	1.0	0.11	1	B6K0044	11/02/2016	11/03/16 14:47	



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Client Sample ID V-17-0.5

Lab ID: 1603729-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.8	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:18	
Lead	12	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:18	



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Client Sample ID V-17-2.5

Lab ID: 1603729-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:18	
Lead	23	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:18	



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Client Sample ID W-12-0.5

Lab ID: 1603729-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.7	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:22	
Lead	12	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:22	



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Client Sample ID W-12-2.5

Lab ID: 1603729-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:25	
Lead	2.0	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:25	



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Client Sample ID W-13-0.5

Lab ID: 1603729-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:23	
Lead	1.2	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:23	



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Client Sample ID W-13-2.5

Lab ID: 1603729-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:26	
Lead	4.5	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:26	



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Client Sample ID W-14-0.5

Lab ID: 1603729-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:24	
Lead	1.5	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:24	



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Client Sample ID W-14-2.5

Lab ID: 1603729-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:27	
Lead	250	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:27	



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Client Sample ID W-15-0.5

Lab ID: 1603729-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0813	10/29/2016	10/31/16 11:25	
Lead	1.9	1.0	0.11	1	B6J0813	10/29/2016	10/31/16 11:25	



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Client Sample ID W-15-2.5

Lab ID: 1603729-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:28	
Lead	14	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:28	



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Client Sample ID W-16-0.5

Lab ID: 1603729-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:45	
Lead	11	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:45	



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Client Sample ID W-16-2.5

Lab ID: 1603729-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:29	
Lead	8.8	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:29	



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Client Sample ID W-17-0.5

Lab ID: 1603729-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:49	
Lead	23	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:49	



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Client Sample ID W-17-2.5

Lab ID: 1603729-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:30	
Lead	8.4	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:30	



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Client Sample ID X-12-0.5

Lab ID: 1603729-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:50	
Lead	13	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:50	



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Client Sample ID X-12-2.5

Lab ID: 1603729-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:32	
Lead	3.3	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:32	



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Client Sample ID X-13-0.5

Lab ID: 1603729-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:51	
Lead	5.3	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:51	



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Client Sample ID X-13-2.5

Lab ID: 1603729-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:33	
Lead	41	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:33	



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Client Sample ID X-14-0.5

Lab ID: 1603729-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:52	
Lead	13	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:52	



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Client Sample ID X-14-2.5

Lab ID: 1603729-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:34	
Lead	80	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:34	



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Client Sample ID X-15-0.5

Lab ID: 1603729-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.0	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:56	
Lead	10	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:56	



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Client Sample ID X-15-2.5

Lab ID: 1603729-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.0	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:35	
Lead	8.2	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:35	



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Client Sample ID X-16-0.5

Lab ID: 1603729-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.1	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:57	
Lead	8.5	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:57	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000/
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID X-16-2.5

Lab ID: 1603729-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:39	
Lead	5.0	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:39	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000/
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID X-17-0.5

Lab ID: 1603729-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:58	
Lead	9.0	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:58	



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Reported : 11/08/2016

Client Sample ID X-17-2.5

Lab ID: 1603729-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:40	
Lead	7.2	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:40	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Y-12-0.5

Lab ID: 1603729-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.5	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 11:59	
Lead	12	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 11:59	



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Client Sample ID Y-12-2.5

Lab ID: 1603729-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:41	
Lead	4.1	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:41	



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Report To : John Nordenstam
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Client Sample ID Y-13-0.5

Lab ID: 1603729-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:00	
Lead	8.9	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:00	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Y-13-2.5

Lab ID: 1603729-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:42	
Lead	30	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:42	



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Client Sample ID Y-14-0.5

Lab ID: 1603729-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.8	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:02	
Lead	8.2	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:02	



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Client Sample ID Y-14-2.5

Lab ID: 1603729-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:43	
Lead	4.4	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:43	



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Report To : John Nordenstam
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Client Sample ID Y-15-0.5

Lab ID: 1603729-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.6	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:03	
Lead	8.9	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:03	



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Client Sample ID Y-15-2.5

Lab ID: 1603729-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:44	
Lead	8.0	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:44	



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Client Sample ID Y-16-0.5

Lab ID: 1603729-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:04	
Lead	6.1	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:04	



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Client Sample ID Y-16-2.5

Lab ID: 1603729-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.9	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:45	
Lead	11	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:45	



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Client Sample ID Y-17-0.5

Lab ID: 1603729-45

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:05	
Lead	12	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:05	



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Client Sample ID Y-17-2.5

Lab ID: 1603729-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0045	11/02/2016	11/03/16 15:46	
Lead	7.5	1.0	0.11	1	B6K0045	11/02/2016	11/03/16 15:46	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID EB-9-10/22/16

Lab ID: 1603729-47

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0749	10/27/2016	10/28/16 10:36	
Lead	0.0066	0.0050	0.0028	1	B6J0749	10/27/2016	10/28/16 10:36	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
4,4'-DDE	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
4,4'-DDT	ND	0.05	0.004	1	B6J0756	10/27/2016	10/27/16 14:08	
Aldrin	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:08	
alpha-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:08	
alpha-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
beta-BHC	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Chlordane	ND	0.25	0.03	1	B6J0756	10/27/2016	10/27/16 14:08	
delta-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:08	
Dieldrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Endosulfan I	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Endosulfan II	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Endrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Endrin aldehyde	ND	0.05	0.006	1	B6J0756	10/27/2016	10/27/16 14:08	
Endrin ketone	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
gamma-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:08	
gamma-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Heptachlor	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:08	
Methoxychlor	ND	0.25	0.004	1	B6J0756	10/27/2016	10/27/16 14:08	
Toxaphene	ND	2.5	0.23	1	B6J0756	10/27/2016	10/27/16 14:08	
Surrogate: Decachlorobiphenyl	30.9 %		7 - 127		B6J0756	10/27/2016	10/27/16 14:08	
Surrogate: Tetrachloro-m-xylene	62.6 %		14 - 122		B6J0756	10/27/2016	10/27/16 14:08	



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Reported : 11/08/2016

Client Sample ID EB-9-10/22/16

Lab ID: 1603729-47

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1221	ND	1.0	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1232	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1242	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1248	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1254	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1260	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1262	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
Aroclor 1268	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:17	
<i>Surrogate: Decachlorobiphenyl</i>	<i>43.3 %</i>		<i>7 - 127</i>		B6J0756	10/27/2016	<i>10/28/16 12:17</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>79.1 %</i>		<i>14 - 122</i>		B6J0756	10/27/2016	<i>10/28/16 12:17</i>	



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Reported : 11/08/2016

Client Sample ID EB-10-10/22/16

Lab ID: 1603729-48

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0749	10/27/2016	10/28/16 10:40	
Lead	ND	0.0050	0.0028	1	B6J0749	10/27/2016	10/28/16 10:40	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
4,4'-DDE	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
4,4'-DDT	ND	0.05	0.004	1	B6J0756	10/27/2016	10/27/16 14:18	
Aldrin	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:18	
alpha-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:18	
alpha-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
beta-BHC	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Chlordane	ND	0.25	0.03	1	B6J0756	10/27/2016	10/27/16 14:18	
delta-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:18	
Dieldrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Endosulfan I	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Endosulfan II	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Endrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Endrin aldehyde	ND	0.05	0.006	1	B6J0756	10/27/2016	10/27/16 14:18	
Endrin ketone	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
gamma-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:18	
gamma-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Heptachlor	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:18	
Methoxychlor	ND	0.25	0.004	1	B6J0756	10/27/2016	10/27/16 14:18	
Toxaphene	ND	2.5	0.23	1	B6J0756	10/27/2016	10/27/16 14:18	
Surrogate: Decachlorobiphenyl	20.0 %		7 - 127		B6J0756	10/27/2016	10/27/16 14:18	
Surrogate: Tetrachloro-m-xylene	49.4 %		14 - 122		B6J0756	10/27/2016	10/27/16 14:18	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000/
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID EB-10-10/22/16

Lab ID: 1603729-48

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1221	ND	1.0	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1232	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1242	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1248	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1254	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1260	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1262	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Aroclor 1268	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:36	
Surrogate: Decachlorobiphenyl	27.2 %		7 - 127		B6J0756	10/27/2016	10/28/16 12:36	
Surrogate: Tetrachloro-m-xylene	62.0 %		14 - 122		B6J0756	10/27/2016	10/28/16 12:36	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000/
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID W-15-2.5 Duplicate
Lab ID: 1603729-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.6	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 14:57	
Lead	6.3	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 14:57	



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Reported : 11/08/2016

Client Sample ID Y-12-2.5 Duplicate
Lab ID: 1603729-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:01	
Lead	4.0	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:01	



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Reported : 11/08/2016

Client Sample ID W-14-0.5 Duplicate
Lab ID: 1603729-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:04	
Lead	21	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:04	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID X-17-0.5 Duplicate
Lab ID: 1603729-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	15	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:15	
Lead	8.7	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:15	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000/
Report To : John Nordenstam
Reported : 11/08/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0749 - EPA 3010A_W

Blank (B6J0749-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0749-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	0.916230	0.010	1.00000		91.6	80 - 120			
Lead	0.944383	0.0050	1.00000		94.4	80 - 120			

Duplicate (B6J0749-DUP1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0749-MS1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.22285	0.010	2.50000	ND	88.9	74 - 123			
Lead	2.27123	0.0050	2.50000	ND	90.8	78 - 109			

Matrix Spike Dup (B6J0749-MSD1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.28565	0.010	2.50000	ND	91.4	74 - 123	2.79	20	
Lead	2.33496	0.0050	2.50000	ND	93.4	78 - 109	2.77	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0813 - EPA 3050B_S

Blank (B6J0813-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0813-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	48.2736	1.0	50.0000		96.5	80 - 120			
Lead	50.5006	1.0	50.0000		101	80 - 120			

Duplicate (B6J0813-DUP1)

Source: 1603727-27

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	2.39233	1.0		3.17500	NR		28.1	20	R
Lead	2.97771	1.0		11.0596	NR		115	20	R

Matrix Spike (B6J0813-MS1)

Source: 1603727-27

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	90.0671	1.0	125.000	3.17500	69.5	59 - 103			
Lead	88.6304	1.0	125.000	11.0596	62.1	34 - 129			

Matrix Spike Dup (B6J0813-MSD1)

Source: 1603727-27

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	89.8784	1.0	125.000	3.17500	69.4	59 - 103	0.210	20	
Lead	87.9738	1.0	125.000	11.0596	61.5	34 - 129	0.744	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0814 - EPA 3050B_S

Blank (B6J0814-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0814-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	46.9384	1.0	50.0000		93.9	80 - 120			
Lead	48.7594	1.0	50.0000		97.5	80 - 120			

Duplicate (B6J0814-DUP1)

Source: 1603729-19

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	4.24594	1.0		3.79605	NR		11.2	20	
Lead	10.8741	1.0		11.2837	NR		3.70	20	

Matrix Spike (B6J0814-MS1)

Source: 1603729-19

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	80.8612	1.0	125.000	3.79605	61.7	59 - 103			
Lead	87.0080	1.0	125.000	11.2837	60.6	34 - 129			

Matrix Spike Dup (B6J0814-MSD1)

Source: 1603729-19

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	52.9376	1.0	125.000	3.79605	39.3	59 - 103	41.7	20	M1, R
Lead	60.6496	1.0	125.000	11.2837	39.5	34 - 129	35.7	20	R



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0044 - EPA 3050B_S

Blank (B6K0044-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0044-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	50.8298	1.0	50.0000		102	80 - 120			
Lead	53.5886	1.0	50.0000		107	80 - 120			

Duplicate (B6K0044-DUP1)

Source: 1603727-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	4.00932	1.0		3.40448	NR		16.3	20	
Lead	1.57294	1.0		1.25545	NR		22.5	20	R

Matrix Spike (B6K0044-MS1)

Source: 1603727-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	110.643	1.0	125.000	3.40448	85.8	59 - 103			
Lead	111.316	1.0	125.000	1.25545	88.0	34 - 129			

Matrix Spike Dup (B6K0044-MSD1)

Source: 1603727-30

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	114.071	1.0	125.000	3.40448	88.5	59 - 103	3.05	20	
Lead	113.984	1.0	125.000	1.25545	90.2	34 - 129	2.37	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0045 - EPA 3050B_S

Blank (B6K0045-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0045-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	47.0153	1.0	50.0000		94.0	80 - 120			
Lead	49.9764	1.0	50.0000		100	80 - 120			

Duplicate (B6K0045-DUP1)

Source: 1603729-10

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	2.24912	1.0		2.33448	NR		3.72	20	
Lead	23.4665	1.0		23.4772	NR		0.0454	20	

Matrix Spike (B6K0045-MS1)

Source: 1603729-10

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	98.4598	1.0	125.000	2.33448	76.9	59 - 103			
Lead	130.889	1.0	125.000	23.4772	85.9	34 - 129			

Matrix Spike Dup (B6K0045-MSD1)

Source: 1603729-10

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	99.8020	1.0	125.000	2.33448	78.0	59 - 103	1.35	20	
Lead	117.294	1.0	125.000	23.4772	75.1	34 - 129	11.0	20	



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Project Number : LAUSD ROOSEVELT HS, 265642.0000/
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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0210 - EPA 3050B_S

Blank (B6K0210-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.178046	1.0			NR				J

LCS (B6K0210-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	43.2665	1.0	50.0000		86.5	80 - 120			
Lead	48.1315	1.0	50.0000		96.3	80 - 120			

Duplicate (B6K0210-DUP1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	4.71497	1.0		3.84095	NR		20.4	20	R
Lead	1.44785	1.0		1.04040	NR		32.8	20	R

Matrix Spike (B6K0210-MS1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	111.199	1.0	125.000	3.84095	85.9	59 - 103			
Lead	115.917	1.0	125.000	1.04040	91.9	34 - 129			

Matrix Spike Dup (B6K0210-MSD1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	108.492	1.0	125.000	3.84095	83.7	59 - 103	2.46	20	
Lead	113.096	1.0	125.000	1.04040	89.6	34 - 129	2.46	20	



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0756-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3321		0.500000		66.4	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3389		0.500000		67.8	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000		77.2	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4132		0.500000		82.6	14 - 122		

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.389980	0.05	0.500000		78.0	59 - 109		
4,4'-DDD [2C]	0.400360	0.05	0.500000		80.1	59 - 109		
4,4'-DDE	0.382070	0.05	0.500000		76.4	63 - 101		
4,4'-DDE [2C]	0.393755	0.05	0.500000		78.8	63 - 101		
4,4'-DDT	0.312965	0.05	0.500000		62.6	36 - 96		
4,4'-DDT [2C]	0.306415	0.05	0.500000		61.3	36 - 96		
Aldrin	0.395040	0.02	0.500000		79.0	64 - 96		
Aldrin [2C]	0.405005	0.02	0.500000		81.0	64 - 96		
alpha-BHC	0.393195	0.02	0.500000		78.6	63 - 92		
alpha-BHC [2C]	0.408610	0.02	0.500000		81.7	63 - 92		
alpha-Chlordane	0.381445	0.02	0.500000		76.3	63 - 101		
alpha-Chlordane [2C]	0.387965	0.02	0.500000		77.6	63 - 101		
beta-BHC	0.383430	0.02	0.500000		76.7	58 - 95		
beta-BHC [2C]	0.397770	0.02	0.500000		79.6	58 - 95		
delta-BHC	0.279005	0.02	0.500000		55.8	37 - 107		
delta-BHC [2C]	0.286245	0.02	0.500000		57.2	37 - 107		
Dieldrin	0.397825	0.05	0.500000		79.6	62 - 102		
Dieldrin [2C]	0.400380	0.05	0.500000		80.1	62 - 102		
Endosulfan I	0.380945	0.02	0.500000		76.2	61 - 97		
Endosulfan I [2C]	0.389895	0.02	0.500000		78.0	61 - 97		
Endosulfan II	0.380440	0.05	0.500000		76.1	61 - 103		
Endosulfan II [2C]	0.377870	0.05	0.500000		75.6	61 - 103		
Endosulfan sulfate	0.334510	0.05	0.500000		66.9	60 - 112		
Endosulfan Sulfate [2C]	0.338545	0.05	0.500000		67.7	60 - 112		
Endrin	0.442345	0.05	0.500000		88.5	62 - 103		
Endrin [2C]	0.452120	0.05	0.500000		90.4	62 - 103		
Endrin aldehyde	0.361285	0.05	0.500000		72.3	64 - 116		
Endrin aldehyde [2C]	0.372550	0.05	0.500000		74.5	64 - 116		
Endrin ketone	0.346515	0.05	0.500000		69.3	56 - 113		
Endrin ketone [2C]	0.349980	0.05	0.500000		70.0	56 - 113		
gamma-BHC	0.401575	0.02	0.500000		80.3	64 - 95		
gamma-BHC [2C]	0.413670	0.02	0.500000		82.7	64 - 95		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0756-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

gamma-Chlordane	0.379495	0.02	0.500000		75.9	64 - 99		
gamma-Chlordane [2C]	0.386585	0.02	0.500000		77.3	64 - 99		
Heptachlor	0.401695	0.02	0.500000		80.3	64 - 93		
Heptachlor [2C]	0.406790	0.02	0.500000		81.4	64 - 93		
Heptachlor epoxide	0.389420	0.02	0.500000		77.9	65 - 98		
Heptachlor epoxide [2C]	0.396635	0.02	0.500000		79.3	65 - 98		
Methoxychlor	0.326050	0.25	0.500000		65.2	0 - 141		
Methoxychlor [2C]	0.329225	0.25	0.500000		65.8	0 - 141		
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3537</i>		<i>0.500000</i>		<i>70.7</i>	<i>7 - 127</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3480</i>		<i>0.500000</i>		<i>69.6</i>	<i>7 - 127</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.3958</i>		<i>0.500000</i>		<i>79.2</i>	<i>14 - 122</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4328</i>		<i>0.500000</i>		<i>86.6</i>	<i>14 - 122</i>		

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.382190	0.05	0.500000		76.4	59 - 109	2.02	20
4,4'-DDD [2C]	0.396440	0.05	0.500000		79.3	59 - 109	0.984	20
4,4'-DDE	0.374120	0.05	0.500000		74.8	63 - 101	2.10	20
4,4'-DDE [2C]	0.388570	0.05	0.500000		77.7	63 - 101	1.33	20
4,4'-DDT	0.301065	0.05	0.500000		60.2	36 - 96	3.88	20
4,4'-DDT [2C]	0.295700	0.05	0.500000		59.1	36 - 96	3.56	20
Aldrin	0.387615	0.02	0.500000		77.5	64 - 96	1.90	20
Aldrin [2C]	0.401730	0.02	0.500000		80.3	64 - 96	0.812	20
alpha-BHC	0.384635	0.02	0.500000		76.9	63 - 92	2.20	20
alpha-BHC [2C]	0.401870	0.02	0.500000		80.4	63 - 92	1.66	20
alpha-Chlordane	0.373095	0.02	0.500000		74.6	63 - 101	2.21	20
alpha-Chlordane [2C]	0.383550	0.02	0.500000		76.7	63 - 101	1.14	20
beta-BHC	0.374495	0.02	0.500000		74.9	58 - 95	2.36	20
beta-BHC [2C]	0.391100	0.02	0.500000		78.2	58 - 95	1.69	20
delta-BHC	0.273035	0.02	0.500000		54.6	37 - 107	2.16	20
delta-BHC [2C]	0.281320	0.02	0.500000		56.3	37 - 107	1.74	20
Dieldrin	0.389230	0.05	0.500000		77.8	62 - 102	2.18	20
Dieldrin [2C]	0.395445	0.05	0.500000		79.1	62 - 102	1.24	20
Endosulfan I	0.373770	0.02	0.500000		74.8	61 - 97	1.90	20
Endosulfan I [2C]	0.385820	0.02	0.500000		77.2	61 - 97	1.05	20
Endosulfan II	0.371020	0.05	0.500000		74.2	61 - 103	2.51	20
Endosulfan II [2C]	0.370560	0.05	0.500000		74.1	61 - 103	1.95	20
Endosulfan sulfate	0.323020	0.05	0.500000		64.6	60 - 112	3.49	20
Endosulfan Sulfate [2C]	0.319495	0.05	0.500000		63.9	60 - 112	5.79	20
Endrin	0.427475	0.05	0.500000		85.5	62 - 103	3.42	20
Endrin [2C]	0.441245	0.05	0.500000		88.2	62 - 103	2.43	20
Endrin aldehyde	0.352420	0.05	0.500000		70.5	64 - 116	2.48	20



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Endrin aldehyde [2C]	0.364575	0.05	0.500000		72.9	64 - 116	2.16	20	
Endrin ketone	0.334495	0.05	0.500000		66.9	56 - 113	3.53	20	
Endrin ketone [2C]	0.326635	0.05	0.500000		65.3	56 - 113	6.90	20	
gamma-BHC	0.392935	0.02	0.500000		78.6	64 - 95	2.17	20	
gamma-BHC [2C]	0.407880	0.02	0.500000		81.6	64 - 95	1.41	20	
gamma-Chlordane	0.371900	0.02	0.500000		74.4	64 - 99	2.02	20	
gamma-Chlordane [2C]	0.382560	0.02	0.500000		76.5	64 - 99	1.05	20	
Heptachlor	0.394790	0.02	0.500000		79.0	64 - 93	1.73	20	
Heptachlor [2C]	0.403430	0.02	0.500000		80.7	64 - 93	0.829	20	
Heptachlor epoxide	0.382100	0.02	0.500000		76.4	65 - 98	1.90	20	
Heptachlor epoxide [2C]	0.393685	0.02	0.500000		78.7	65 - 98	0.747	20	
Methoxychlor	0.311510	0.25	0.500000		62.3	0 - 141	4.56	20	
Methoxychlor [2C]	0.300570	0.25	0.500000		60.1	0 - 141	9.10	20	
Surrogate: Decachlorobiphenyl	0.3365		0.500000		67.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3304		0.500000		66.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.3868		0.500000		77.4	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4238		0.500000		84.8	14 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine, CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.3321		0.500000	66.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000	77.2	14 - 122

Blank (B6J0756-BLK2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.4919		0.500000	98.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4931		0.500000	98.6	14 - 122

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96			
Aroclor 1260	ND	0.50			NR	64 - 106			
Surrogate: Decachlorobiphenyl	0.3537		0.500000	70.7	7 - 127				
Surrogate: Tetrachloro-m-xylene	0.3958		0.500000	79.2	14 - 122				

LCS (B6J0756-BS2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	4.15151	0.50	5.00000	83.0	68 - 96				
Aroclor 1260	4.42908	0.50	5.00000	88.6	64 - 106				
Surrogate: Decachlorobiphenyl	0.4784		0.500000	95.7	7 - 127				
Surrogate: Tetrachloro-m-xylene	0.4737		0.500000	94.7	14 - 122				

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96		20	
Aroclor 1260	ND	0.50			NR	64 - 106		20	
Surrogate: Decachlorobiphenyl	0.3365		0.500000	67.3	7 - 127				



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/

Report To : John Nordenstam

Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Surrogate: Tetrachloro-m-xylene 0.3868 0.500000 77.4 14 - 122

LCS Dup (B6J0756-BSD2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016 4.39845 0.50 5.00000 88.0 68 - 96 5.78 20

Aroclor 1260 4.68570 0.50 5.00000 93.7 64 - 106 5.63 20

Surrogate: Decachlorobiphenyl 0.4810 0.500000 96.2 7 - 127

Surrogate: Tetrachloro-m-xylene 0.4868 0.500000 97.4 14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GS0 <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	Condition Y N 1. CHILLED <input checked="" type="checkbox"/> 5. # OF SAMPLES MATCH COC <input checked="" type="checkbox"/> 2. HEADSPACE (VOA) <input type="checkbox"/> 6. PRESERVED <input type="checkbox"/> 3. CONTAINER INTACT <input checked="" type="checkbox"/> 7. COOLER TEMP deg.C: 4. SEALED <input type="checkbox"/>	ATTCCOC Ver: 20130715

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 944-341-7467	
City: IRVINE		State: CA		Zip: 92618	
Attn: JOHN NORDENSTAM, jnordenstam@trcsolutions.com		Email: IRVINE		Fax: 944-727-7311	
Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: 944-341-7467	
City: IRVINE		State: CA		Zip: 92618	

Project Name: LAUSD MOOSEVIEW HS		Quote No: 61613	
Project No.: 265642-0000/TA02		PO #: 100816	
Sampler: Gruseppe Cefalu			

ITEM	Lab No.	Sample Description			Time	Encircle or Write Requested Analysis														Encircle Sample Matrix				Container		QA/QC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Sample ID / Location	Date			8260 (624 Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	6010 / 7000 (Title 22 Metals)	TO-15	As EPA 60103	Pb EPA 60103	AQUEOUS / LAYERED - OIL				Type: 1-Tube, 2-VOA, 3-Liter, 4-Pint, 5-Gal, 6-Teddy, 7 - Canister																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitted Print Name: **ROSS SIMENY** Signature: **ROSS SIMENY** Date: **10/22/16**
 Date: **10/22/16** Time: **1553**

Received by: **ROSS SIMENY** Signature: **ROSS SIMENY** Date: **10/22/16** Time: **1553**
 Received by: **ROSS SIMENY** Signature: **ROSS SIMENY** Date: **10/22/16** Time: **1553**

Relinquished by: **ROSS SIMENY** Signature: **ROSS SIMENY** Date: **10/22/16** Time: **1553**
 Relinquished by: **ROSS SIMENY** Signature: **ROSS SIMENY** Date: **10/22/16** Time: **1553**

CHAIN OF CUSTODY RECORD

Page 4 of 5

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt			
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input checked="" type="checkbox"/>
<input type="checkbox"/> GS0	<input type="checkbox"/> Other:	2. HEADSPACE (V24)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input checked="" type="checkbox"/>
<input type="checkbox"/>		3. CONTAINER INTACT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP deg. C:
<input type="checkbox"/>		4. SEALED	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel: _____	
City: FALVINE		State: CA		Zip: 92618	
Attn: JOHN NORDENSTAM, jnordenstam@trcsolutions.com		Email: _____		Fax: _____	
Company: TRC SOLUTIONS, INC		Address: _____		City: _____	
State: CA		Zip: 92618		Tel: _____	

Project Name:		Quote No:		Special Instructions/Comments:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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1	1603729-31	X-16-0.5	10/22/16	1235	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000 (Title 22 Metals)	TO-15	AS EPA 6010B	Pb EPA 6010B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

<p>1. Samples received hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.</p> <p>3. The following turnaround time conditions apply:</p> <p>TAT = 0: 100% Surcharge 1st Business Day (received by 9:00 AM)</p> <p>TAT = 1: 200% Surcharge 2nd Business Day (COB 5:00 PM)</p> <p>TAT = 2: 300% Surcharge 3rd Business Day (COB 5:00 PM)</p> <p>TAT = 3: 400% Surcharge 4th Business Day (COB 5:00 PM)</p> <p>TAT = 4: 500% Surcharge 5th Business Day (COB 5:00 PM)</p> <p>TAT = 5: NO SURCHARGE 5th Business Day (COB 5:00 PM)</p> <p>4. Weekend, holiday, after-hours work - ask for quote.</p> <p>5. Subject to the above conditions, 15 business days for projects requiring shorter TATs will incur a surcharge.</p> <p>6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>7. Electronic records maintained for five (5) years from report date.</p> <p>8. Hard copy reports will be disposed of after 45 calendar days from report date.</p> <p>9. Storage and Report Fees:</p> <ul style="list-style-type: none"> - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reprocesst EDD. 10. Rush TAT/SLIC samples, and 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample. 		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>Ross S. Agency <i>Ross S. Agency</i> Signature Submitter Print Name</p> <p>Date: 10/22/16 Time: 1554 Date: 10/27/16 Time: 1830</p>
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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:56 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 0.5 feet)

Rachelle,

For the soil samples collected at 0.5 feet on October 22/23, 2016, please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 22, 2016 (46 samples at 0.5 feet)

- Sample W-14-0.5
- Sample X-17-0.5
- Sample Y-8-0.5
- Sample AA923-1-0.5
- Sample AA828-5-0.5

Samples collected on October 23, 2016 (39 samples at 0.5 feet)

- Sample AA651/683-3-0.5
- Sample AA955-3-0.5
- Sample AA831-3-0.5
- Sample D-8-0.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com



January 16, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603729

Client Reference : LAUSD ROOSEVELT HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/

Report To : John Nordenstam

Reported : 01/16/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
V-16-0.5	1603729-07	Soil	10/22/16 9:25	10/22/16 18:30
W-14-2.5	1603729-16	Soil	10/22/16 11:05	10/22/16 18:30
X-14-2.5	1603729-28	Soil	10/22/16 12:10	10/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD ROOSEVELT HS, 265642.0000/
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Client Sample ID V-16-0.5

Lab ID: 1603729-07

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.2	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:26	



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Client Sample ID W-14-2.5

Lab ID: 1603729-16

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	17	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 16:58	D1



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Reported : 01/16/2017

Client Sample ID X-14-2.5

Lab ID: 1603729-28

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.5	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 16:59	D1



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QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0221 - STLC_S Extraction									
Blank (B7A0221-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0221-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0221-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.14591		2.00000		107	80 - 120			
Duplicate (B7A0221-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	9.66282	1.0		9.72033	NR		0.593	20	
Duplicate (B7A0221-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	18.7563	1.0		18.6238	NR		0.709	20	
Matrix Spike (B7A0221-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.4314		2.00000	9.72033	85.6	44 - 130			
Matrix Spike (B7A0221-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	19.9180		2.00000	18.6238	64.7	44 - 130			
Matrix Spike Dup (B7A0221-MSD1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.7140		2.00000	9.72033	99.7	44 - 130	2.44	20	



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STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0390 - STLC_S Extraction

Blank (B7A0390-BLK1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
Blank (B7A0390-BLK2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
LCS (B7A0390-BS1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.07992		2.00000		104	80 - 120			
Duplicate (B7A0390-DUP1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.12101	1.0		2.16394	NR		2.00	20	
Duplicate (B7A0390-DUP2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	7.06563	1.0		6.40204	NR		9.85	20	
Matrix Spike (B7A0390-MS1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	4.42433		2.50000	2.16394	90.4	44 - 130			
Matrix Spike (B7A0390-MS2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	9.15801		2.50000	6.40204	110	44 - 130			
Matrix Spike Dup (B7A0390-MSD1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	4.28918		2.50000	2.16394	85.0	44 - 130	3.10	20	



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Notes and Definitions

D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TTLC mg/L	TCLP mg/L	
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
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Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC			
				mg/kg	mg/L	mg/kg	mg/L			
Units:				TTL	STLC	TTL	STLC	TCLP		
Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19		---		
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16		---		
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25		---		
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26		---		
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17		---		
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17		---		
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17		---		
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16		---		
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26		---		
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34		---		
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35		---		
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11		---		
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9		---		
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13		---		
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15		---		
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0		---		
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10		---		
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13		---		
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8		---		
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12		---		
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14		---		
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12		---		
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19		---		
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13		---		
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14		---		
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7		---		
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35		---		
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74		---		
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61		---		
IM-3c-0-5	11/23/2016	1604246	0.5	66	X			---	Perform laboratory analysis for STLC for arsenic	
IM-3c-2-5	11/23/2016	1604246	2.5	22	---			---		

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456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L		
Units: Screening Level:										
IM-3c-3.5	11/23/2016	1604246	3.5	16	5.0	80	5.0			
IM-4-0.5	10/30/2016	1603842	0.5	16		66				
IM-4-2.5	10/30/2016	1603842	2.5	20		22				
IM-5-0.5	10/30/2016	1603842	0.5	29		54				
IM-5-2.5	10/30/2016	1603842	2.5	22		40				
IM-5d-0.5	11/23/2016	1604246	0.5	24						
IM-5d-3.5	11/23/2016	1604246	3.5	14						
IM-6-0.5	10/30/2016	1603842	0.5	12		36				
CRA-2-0.5	10/30/2016	1603842	0.5	3.6		110	X		Perform laboratory analysis for STLC for lead	
CRA-2-2.5	10/30/2016	1603842	2.5	3.5		140	X		Perform laboratory analysis for STLC for lead	
CRA-2b-0.5	11/22/2016	1604231	0.5			89	X		Perform laboratory analysis for STLC for lead	
CRA-2b-2.5	11/22/2016	1604231	2.5			720	X		Perform laboratory analysis for STLC for lead	
CRA-2c-3.5	11/22/2016	1604231	3.5			120	X		Perform laboratory analysis for STLC for lead	
CRA-3-0.5	10/30/2016	1603842	0.5	16		55				
CR1-2-0.5	10/30/2016	1603842	0.5	4.1		100	X		Perform laboratory analysis for STLC for lead	
CR1-2d-0.5	11/23/2016	1604246	0.5			120	X		Perform laboratory analysis for STLC for lead	
CR1-4-0.5	10/30/2016	1603842	0.5	4.9		130	X		Perform laboratory analysis for STLC for lead	
CR1-4b-0.5	11/23/2016	1604246	0.5			350	X		Perform laboratory analysis for STLC for lead	
CR1-5-0.25	11/23/2016	1604246	0.25	9.3		170	X		Perform laboratory analysis for STLC for lead	
CR1-5-0.5	10/30/2016	1603842	0.5	23		310	X		Perform laboratory analysis for STLC for lead	
CR1-5-2.5	10/30/2016	1603842	2.5	15		18				
CR1-5b-0.25	11/23/2016	1604246	0.25	13		190	X		Perform laboratory analysis for STLC for lead	
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13		180	X		Perform laboratory analysis for STLC for lead	
CR1-5b-0.5	11/23/2016	1604246	0.5	32		630	X		Perform laboratory analysis for STLC for lead	
CR1-5b-2.5	11/23/2016	1604246	2.5	19		140	X		Perform laboratory analysis for STLC for lead	
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6		91	X		Perform laboratory analysis for STLC for lead	
P15-0.5	10/30/2016	1603842	0.5	3.4		90	X		Perform laboratory analysis for STLC for lead	
P15-2.5	10/30/2016	1603842	2.5	2.9		140	X		Perform laboratory analysis for STLC for lead	
P15a-2.5	11/22/2016	1604231	2.5			150	X		Perform laboratory analysis for STLC for lead	
P15b-0.5	11/22/2016	1604231	0.5			190	X		Perform laboratory analysis for STLC for lead	
P15d-0.5	11/22/2016	1604231	0.5			140	X		Perform laboratory analysis for STLC for lead	
P15d-2.5	11/22/2016	1604231	2.5			440	X		Perform laboratory analysis for STLC for lead	
P15d-2.5 DUP	11/22/2016	1604231	2.5			110	X		Perform laboratory analysis for STLC for lead	
P16-0.5	10/30/2016	1603842	0.5	2.9		110	X		Perform laboratory analysis for STLC for lead	
P16c-0.5	11/22/2016	1604231	0.5	3.1		84	X		Perform laboratory analysis for STLC for lead	
Q15-0.5	10/30/2016	1603842	0.5	3.1		110	X		Perform laboratory analysis for STLC for lead	
Q15a-2.5	11/22/2016	1604231	2.5			4200	X		Perform laboratory analysis for STLC for lead	
Q15a-3.5	11/22/2016	1604231	3.5			190	X		Perform laboratory analysis for STLC for lead	
Q15a-3.5 DUP	11/22/2016	1604231	3.5			280	X		Perform laboratory analysis for STLC for lead	
R15-0.25	11/22/2016	1604231	0.25			95	X		Perform laboratory analysis for STLC for lead	

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC	TCLP		
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Screening Level:				12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 25, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603729

Client Reference : LAUSD ROOSEVELT HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/

Report To : John Nordenstam

Reported : 01/25/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W-14-2.5	1603729-16	Soil	10/22/16 11:05	10/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID W-14-2.5

Lab ID: 1603729-16

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.47	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 10:34	D1



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Reported : 01/25/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0627 - EPA 3010A_S									
Blank (B7A0627-BLK1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	ND	0.050			NR				
LCS (B7A0627-BS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	1.03480	0.050	1.00000		103	80 - 120			
Duplicate (B7A0627-DUP1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	0.542394	0.25		0.468285	NR		14.7	20	
Matrix Spike (B7A0627-MS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	3.01524	0.25	2.50000	0.468285	102	78 - 109			
Matrix Spike Dup (B7A0627-MSD1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	3.00022	0.25	2.50000	0.468285	101	78 - 109	0.500	20	



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS, 265642.0000/

Report To : John Nordenstam

Reported : 01/25/2017

Notes and Definitions

D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 18, 2017 2:21 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Rachelle – we need to conduct additional analyses for TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 44 samples to be analyzed for TCLP for lead. Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TtLC	TCLP	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Units:										
Screening Level:										
PE-3-2.5	10/15/2016	1603632	2.5	12	5.0	80	5.0	5.0	X	Perform laboratory analysis for TCLP for lead
PE-3b-2.5	11/23/2016	1604246	2.5	1.8	---	92	5.5	5.5	X	Perform laboratory analysis for TCLP for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	5.8	5.8	X	Perform laboratory analysis for TCLP for lead
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	4.7	4.7	---	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	16	16	X	Perform laboratory analysis for TCLP for lead
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	2.6	2.6	---	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	3.3	---	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	3.3	3.3	---	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	4.1	4.1	---	
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	6.1	0.029 J	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.3	6.3	X	Perform laboratory analysis for TCLP for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	---	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	3.6	3.6	---	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	---	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	0.095 J	---	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	3.0	3.0	---	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	6.6	6.6	X	Perform laboratory analysis for TCLP for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	ND<0.25	---	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	74	74	X	Perform laboratory analysis for TCLP for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	10	10	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	13	13	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	22	22	X	Perform laboratory analysis for TCLP for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	0.41	---	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	ND<1.0	ND<1.0	---	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	17	17	X	Perform laboratory analysis for TCLP for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	0.59	---	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	9.7	9.7	X	Perform laboratory analysis for TCLP for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	6.0	6.0	X	Perform laboratory analysis for TCLP for lead

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LAUSD - Roosevelt High School
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Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments	
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B				
				TTL	mg/kg	STLC	TTL	mg/kg	STLC		TCLP
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Units:				Screening Level:							
AUD-6-0.25	11/21/2016	1604222	0.25	12	5.0	80	5.0	7.8	X	Perform laboratory analysis for TCLP for lead	
AUD-6-0.5	10/16/2016	1603634	0.5	5.2	---	160	---	26	1.5		
AUD-6b-0.5	11/21/2016	1604222	0.5	--	---	160	---	13	X	Perform laboratory analysis for TCLP for lead	
AUD-6c-0.25	11/21/2016	1604222	0.25	--	---	110	---	3.9	---		
AUD-6c-0.25 DUP	11/21/2016	1604222	0.25	--	---	82	---	6.2	X	Perform laboratory analysis for TCLP for lead	
AA1917-4-2.5	10/29/2016	1603827	2.5	2.5	---	220	0.52 J	---	---		
AA2684-2-0.5	10/29/2016	1603827	0.5	18	---	19	---	---	---		
AA2684-2-2.5	10/29/2016	1603827	2.5	20	---	16	---	---	---		
AA2684-3-2.5	10/29/2016	1603827	2.5	33	---	25	---	---	---		
AA2684-6-0.5	12/21/2016	1604849	0.5	27	---	---	---	---	---		
AA2684-6-0.5 DUP	12/21/2016	1604849	0.5	28	---	---	---	---	---		
AA2684-6-2.5	12/21/2016	1604849	2.5	28	---	---	---	---	---		
AA2684-6-3.5	12/21/2016	1604849	3.5	23	---	---	---	---	---		
AA2543-1-2.5	10/29/2016	1603827	2.5	34	---	26	---	---	---		
AA2543-2-0.5	10/29/2016	1603827	0.5	23	---	17	---	---	---		
AA2543-2-2.5	10/29/2016	1603827	2.5	25	---	17	---	---	---		
AA2543-2-2.5 DUP	10/29/2016	1603827	2.5	24	---	17	---	---	---		
AA2543-5-0.5	10/29/2016	1603827	0.5	25	---	16	---	---	---		
AA2543-5-2.5	10/29/2016	1603827	2.5	34	---	26	---	---	---		
AA2543-6-0.5	10/29/2016	1603827	0.5	39	---	34	---	---	---		
AA2543-6-2.5	10/29/2016	1603827	2.5	19	---	35	---	---	---		
AA2038-1-0.5	10/30/2016	1603843	0.5	23	---	11	---	---	---		
AA2038-1-2.5	10/30/2016	1603843	2.5	23	---	7.9	---	---	---		
AA2038-2-0.5	10/30/2016	1603843	0.5	14	---	13	---	---	---		
AA2038-2-2.5	10/30/2016	1603843	2.5	31	---	15	---	---	---		
AA2038-3-0.5	10/30/2016	1603843	0.5	13	---	8.0	---	---	---		
AA2038-3-2.5	10/30/2016	1603843	2.5	27	---	10	---	---	---		
AA2038-4-0.5	10/30/2016	1603843	0.5	16	---	13	---	---	---		
AA2038-4-2.5	10/30/2016	1603843	2.5	20	---	9.8	---	---	---		
AA2038-4-2.5 DUP	10/30/2016	1603843	2.5	21	---	12	---	---	---		
AA2038-7-0.5	12/21/2016	1604849	0.5	12	---	---	---	---	---		
AA2249-1-0.5	10/30/2016	1603843	0.5	24	---	14	---	---	---		
AA2249-1-2.5	10/30/2016	1603843	2.5	33	---	12	---	---	---		
AA2249-2-0.5	10/30/2016	1603843	0.5	22	---	19	---	---	---		
AA2249-2-2.5	10/30/2016	1603843	2.5	35	---	13	---	---	---		
AA2249-2-2.5 DUP	10/30/2016	1603843	2.5	31	---	14	---	---	---		
FS-2-0.5	10/23/2016	1603435	0.5	20	---	6.7	---	---	---		
IM-1-2.5	10/30/2016	1603842	2.5	20	---	35	---	---	---		
IM-2-2.5	10/30/2016	1603842	2.5	4.6	---	160	13	---	X	Perform laboratory analysis for TCLP for lead	
IM-2b-0.5	11/23/2016	1604246	0.5	17	---	100	6.8	---	X	Perform laboratory analysis for TCLP for lead	



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Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TTLc	STLC	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Units:				Screening Level:						
IM-2b-0.5 DUP	11/23/2016	1604246	0.5	12	5.0	80	5.0	X	Perform laboratory analysis for TCLP for lead	
IM-3-0.5	10/30/2016	1603842	0.5	17	---	150	6.3	---		
IM-3-0.5 DUP	10/30/2016	1603842	0.5	25	---	74	---	---		
IM-3c-0.5	10/30/2016	1603842	0.5	22	---	61	---	---		
IM-3c-0.5	11/23/2016	1604246	0.5	66	4.1	---	---	---		
IM-3c-2.5	11/23/2016	1604246	2.5	22	---	---	---	---		
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	---		
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---		
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---		
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---		
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---		
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---		
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---		
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---		
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	10	X	Perform laboratory analysis for TCLP for lead	
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	5.4	X	Perform laboratory analysis for TCLP for lead	
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	4.5	---		
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	140	X	Perform laboratory analysis for TCLP for lead	
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	5.6	X	Perform laboratory analysis for TCLP for lead	
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---		
CRI-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	6.3	X	Perform laboratory analysis for TCLP for lead	
CRI-2d-0.5	11/23/2016	1604246	0.5	---	---	120	26	X	Perform laboratory analysis for TCLP for lead	
CRI-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	32	X	Perform laboratory analysis for TCLP for lead	
CRI-4b-0.5	11/23/2016	1604246	0.5	---	---	350	22	X	Perform laboratory analysis for TCLP for lead	
CRI-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	11	X	Perform laboratory analysis for TCLP for lead	
CRI-5-0.5	10/30/2016	1603842	0.5	23	---	310	25	X	Perform laboratory analysis for TCLP for lead	
CRI-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---		
CRI-5b-0.25	11/23/2016	1604246	0.25	13	---	190	9.0	X	Perform laboratory analysis for TCLP for lead	
CRI-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	12	X	Perform laboratory analysis for TCLP for lead	
CRI-5b-0.5	11/23/2016	1604246	0.5	32	---	630	25	X	Perform laboratory analysis for TCLP for lead	
CRI-5b-2.5	11/23/2016	1604246	2.5	19	---	140	14	X	Perform laboratory analysis for TCLP for lead	
CRI-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	8.5	X	Perform laboratory analysis for TCLP for lead	
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	4.9	---		
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	9.7	X	Perform laboratory analysis for TCLP for lead	
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	2.2	---		
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	8.5	X	Perform laboratory analysis for TCLP for lead	
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	4.8	---		
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	7.3	X	Perform laboratory analysis for TCLP for lead	
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	11	X	Perform laboratory analysis for TCLP for lead	
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	7.4	X	Perform laboratory analysis for TCLP for lead	
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	3.6	---		

DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California										
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TCLP		
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Screening Level:				12	5.0	80	5.0			
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	6.0	X	Perform laboratory analysis for TCLP for lead	
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	190	X	Perform laboratory analysis for TCLP for lead	
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	120	X	Perform laboratory analysis for TCLP for lead	
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	6.5	X	Perform laboratory analysis for TCLP for lead	
R15-0.25	11/22/2016	1604231	0.25	---	---	95	0.78 J	---		
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	1.9	---		
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	8.3	X	Perform laboratory analysis for TCLP for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	2.2	---		
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	17	X	Perform laboratory analysis for TCLP for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	1.3	---		
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	3.4	---		
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	1.5	---		
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRR) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = micrograms per liter

µg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 1.1J Aroclor 1260

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TtLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg =

mg/L =

μg/L =

DUP =

J =

Duplicate of preceding sample

Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) =

(2) =

3.8J Aroclor 1260

11J Aroclor 1260



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603730
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on October 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FILL 2-10.0-10.5	1603730-03	Soil	10/22/16 7:50	10/22/16 18:30
FILL 1-5.0-5.5	1603730-06	Soil	10/22/16 9:00	10/22/16 18:30
EB-UF-10-22-16	1603730-08	Water	10/22/16 9:20	10/22/16 18:30
Trip Blank	1603730-09	Water	10/22/16 0:00	10/22/16 18:30
Composite 1	1603730-10	Soil	10/22/16 0:00	10/22/16 18:30
Composite 2	1603730-11	Soil	10/22/16 0:00	10/22/16 18:30

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID FILL 2-10.0-10.5

Lab ID: 1603730-03

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	0.20	1	B6J0661	10/25/2016	10/25/16 14:30	
Surrogate: 4-Bromofluorobenzene	70.1 %		36 - 125		B6J0661	10/25/2016	10/25/16 14:30	

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 13:00	
1,1,1-Trichloroethane	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 13:00	
1,1,2,2-Tetrachloroethane	ND	4.6	0.84	1	B6J0781	10/28/2016	10/28/16 13:00	
1,1,2-Trichloroethane	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 13:00	
1,1-Dichloroethane	ND	4.6	1.4	1	B6J0781	10/28/2016	10/28/16 13:00	
1,1-Dichloroethene	ND	4.6	0.64	1	B6J0781	10/28/2016	10/28/16 13:00	
1,1-Dichloropropene	ND	4.6	2.2	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2,3-Trichloropropane	ND	4.6	1.1	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2,3-Trichlorobenzene	ND	4.6	0.97	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2,4-Trichlorobenzene	ND	4.6	0.88	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2,4-Trimethylbenzene	ND	4.6	0.49	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2-Dibromo-3-chloropropane	ND	9.2	1.0	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2-Dibromoethane	ND	4.6	0.73	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2-Dichlorobenzene	ND	4.6	0.47	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2-Dichloroethane	ND	4.6	0.48	1	B6J0781	10/28/2016	10/28/16 13:00	
1,2-Dichloropropane	ND	4.6	0.70	1	B6J0781	10/28/2016	10/28/16 13:00	
1,3,5-Trimethylbenzene	ND	4.6	0.53	1	B6J0781	10/28/2016	10/28/16 13:00	
1,3-Dichlorobenzene	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 13:00	
1,3-Dichloropropane	ND	4.6	0.54	1	B6J0781	10/28/2016	10/28/16 13:00	
1,4-Dichlorobenzene	ND	4.6	0.67	1	B6J0781	10/28/2016	10/28/16 13:00	
2,2-Dichloropropane	ND	4.6	0.63	1	B6J0781	10/28/2016	10/28/16 13:00	
2-Chlorotoluene	ND	4.6	0.62	1	B6J0781	10/28/2016	10/28/16 13:00	
4-Chlorotoluene	ND	4.6	0.56	1	B6J0781	10/28/2016	10/28/16 13:00	
4-Isopropyltoluene	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 13:00	
Benzene	ND	4.6	0.54	1	B6J0781	10/28/2016	10/28/16 13:00	
Bromobenzene	ND	4.6	1.8	1	B6J0781	10/28/2016	10/28/16 13:00	
Bromochloromethane	ND	4.6	2.9	1	B6J0781	10/28/2016	10/28/16 13:00	
Bromodichloromethane	ND	4.6	0.92	1	B6J0781	10/28/2016	10/28/16 13:00	
Bromoform	ND	4.6	0.64	1	B6J0781	10/28/2016	10/28/16 13:00	
Bromomethane	ND	4.6	3.9	1	B6J0781	10/28/2016	10/28/16 13:00	



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID FILL 2-10.0-10.5

Lab ID: 1603730-03

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon disulfide	ND	4.6	1.1	1	B6J0781	10/28/2016	10/28/16 13:00	
Carbon tetrachloride	ND	4.6	0.98	1	B6J0781	10/28/2016	10/28/16 13:00	
Chlorobenzene	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 13:00	
Chloroethane	ND	4.6	1.7	1	B6J0781	10/28/2016	10/28/16 13:00	
Chloroform	ND	4.6	1.2	1	B6J0781	10/28/2016	10/28/16 13:00	
Chloromethane	ND	4.6	1.7	1	B6J0781	10/28/2016	10/28/16 13:00	
cis-1,2-Dichloroethene	ND	4.6	0.79	1	B6J0781	10/28/2016	10/28/16 13:00	
cis-1,3-Dichloropropene	ND	4.6	0.73	1	B6J0781	10/28/2016	10/28/16 13:00	
Di-isopropyl ether	ND	4.6	0.47	1	B6J0781	10/28/2016	10/28/16 13:00	
Dibromochloromethane	ND	4.6	0.92	1	B6J0781	10/28/2016	10/28/16 13:00	
Dibromomethane	ND	4.6	0.91	1	B6J0781	10/28/2016	10/28/16 13:00	
Dichlorodifluoromethane	ND	4.6	2.0	1	B6J0781	10/28/2016	10/28/16 13:00	
Ethyl Acetate	ND	46	8.9	1	B6J0781	10/28/2016	10/28/16 13:00	
Ethyl Ether	ND	46	6.6	1	B6J0781	10/28/2016	10/28/16 13:00	
Ethyl tert-butyl ether	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 13:00	
Ethylbenzene	ND	4.6	0.60	1	B6J0781	10/28/2016	10/28/16 13:00	
Freon-113	ND	4.6	0.96	1	B6J0781	10/28/2016	10/28/16 13:00	
Hexachlorobutadiene	ND	4.6	0.71	1	B6J0781	10/28/2016	10/28/16 13:00	
Isopropylbenzene	ND	4.6	0.54	1	B6J0781	10/28/2016	10/28/16 13:00	
m,p-Xylene	ND	9.2	1.1	1	B6J0781	10/28/2016	10/28/16 13:00	
Methylene chloride	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 13:00	
MTBE	ND	4.6	0.46	1	B6J0781	10/28/2016	10/28/16 13:00	
n-Butylbenzene	ND	4.6	0.68	1	B6J0781	10/28/2016	10/28/16 13:00	
n-Propylbenzene	ND	4.6	0.50	1	B6J0781	10/28/2016	10/28/16 13:00	
Naphthalene	ND	4.6	1.1	1	B6J0781	10/28/2016	10/28/16 13:00	
o-Xylene	ND	4.6	0.79	1	B6J0781	10/28/2016	10/28/16 13:00	
sec-Butylbenzene	ND	4.6	0.73	1	B6J0781	10/28/2016	10/28/16 13:00	
Styrene	ND	4.6	0.75	1	B6J0781	10/28/2016	10/28/16 13:00	
tert-Amyl methyl ether	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 13:00	
tert-Butanol	ND	92	5.4	1	B6J0781	10/28/2016	10/28/16 13:00	
tert-Butylbenzene	ND	4.6	0.52	1	B6J0781	10/28/2016	10/28/16 13:00	
Tetrachloroethene	ND	4.6	0.59	1	B6J0781	10/28/2016	10/28/16 13:00	
Toluene	ND	4.6	0.73	1	B6J0781	10/28/2016	10/28/16 13:00	
trans-1,2-Dichloroethene	ND	4.6	1.4	1	B6J0781	10/28/2016	10/28/16 13:00	
trans-1,3-Dichloropropene	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 13:00	
Trichloroethene	ND	4.6	1.0	1	B6J0781	10/28/2016	10/28/16 13:00	
Trichlorofluoromethane	ND	4.6	0.82	1	B6J0781	10/28/2016	10/28/16 13:00	



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9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID FILL 2-10.0-10.5

Lab ID: 1603730-03

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl acetate	ND	46	5.2	1	B6J0781	10/28/2016	10/28/16 13:00	
Vinyl chloride	ND	4.6	1.9	1	B6J0781	10/28/2016	10/28/16 13:00	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>103 %</i>		<i>12 - 186</i>		B6J0781	10/28/2016	<i>10/28/16 13:00</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>105 %</i>		<i>23 - 162</i>		B6J0781	10/28/2016	<i>10/28/16 13:00</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>104 %</i>		<i>23 - 179</i>		B6J0781	10/28/2016	<i>10/28/16 13:00</i>	
<i>Surrogate: Toluene-d8</i>	<i>105 %</i>		<i>26 - 164</i>		B6J0781	10/28/2016	<i>10/28/16 13:00</i>	



Certificate of Analysis

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9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID FILL 1-5.0-5.5

Lab ID: 1603730-06

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.82	0.16	1	B6J0661	10/25/2016	10/25/16 14:45	
Surrogate: 4-Bromofluorobenzene	80.2 %	36 - 125			B6J0661	10/25/2016	10/25/16 14:45	

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.2	0.53	1	B6J0781	10/28/2016	10/28/16 13:19	
1,1,1-Trichloroethane	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 13:19	
1,1,2,2-Tetrachloroethane	ND	4.2	0.78	1	B6J0781	10/28/2016	10/28/16 13:19	
1,1,2-Trichloroethane	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 13:19	
1,1-Dichloroethane	ND	4.2	1.3	1	B6J0781	10/28/2016	10/28/16 13:19	
1,1-Dichloroethene	ND	4.2	0.59	1	B6J0781	10/28/2016	10/28/16 13:19	
1,1-Dichloropropene	ND	4.2	2.1	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2,3-Trichloropropane	ND	4.2	1.0	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2,3-Trichlorobenzene	ND	4.2	0.90	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2,4-Trichlorobenzene	ND	4.2	0.82	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2,4-Trimethylbenzene	ND	4.2	0.45	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2-Dibromo-3-chloropropane	ND	8.5	0.96	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2-Dibromoethane	ND	4.2	0.68	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2-Dichlorobenzene	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2-Dichloroethane	ND	4.2	0.45	1	B6J0781	10/28/2016	10/28/16 13:19	
1,2-Dichloropropane	ND	4.2	0.65	1	B6J0781	10/28/2016	10/28/16 13:19	
1,3,5-Trimethylbenzene	ND	4.2	0.49	1	B6J0781	10/28/2016	10/28/16 13:19	
1,3-Dichlorobenzene	ND	4.2	0.53	1	B6J0781	10/28/2016	10/28/16 13:19	
1,3-Dichloropropane	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 13:19	
1,4-Dichlorobenzene	ND	4.2	0.62	1	B6J0781	10/28/2016	10/28/16 13:19	
2,2-Dichloropropane	ND	4.2	0.58	1	B6J0781	10/28/2016	10/28/16 13:19	
2-Chlorotoluene	ND	4.2	0.58	1	B6J0781	10/28/2016	10/28/16 13:19	
4-Chlorotoluene	ND	4.2	0.52	1	B6J0781	10/28/2016	10/28/16 13:19	
4-Isopropyltoluene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 13:19	
Benzene	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 13:19	
Bromobenzene	ND	4.2	1.7	1	B6J0781	10/28/2016	10/28/16 13:19	
Bromochloromethane	ND	4.2	2.7	1	B6J0781	10/28/2016	10/28/16 13:19	
Bromodichloromethane	ND	4.2	0.85	1	B6J0781	10/28/2016	10/28/16 13:19	
Bromoform	ND	4.2	0.60	1	B6J0781	10/28/2016	10/28/16 13:19	
Bromomethane	ND	4.2	3.6	1	B6J0781	10/28/2016	10/28/16 13:19	



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Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID FILL 1-5.0-5.5

Lab ID: 1603730-06

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon disulfide	ND	4.2	0.99	1	B6J0781	10/28/2016	10/28/16 13:19	
Carbon tetrachloride	ND	4.2	0.90	1	B6J0781	10/28/2016	10/28/16 13:19	
Chlorobenzene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 13:19	
Chloroethane	ND	4.2	1.6	1	B6J0781	10/28/2016	10/28/16 13:19	
Chloroform	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 13:19	
Chloromethane	ND	4.2	1.6	1	B6J0781	10/28/2016	10/28/16 13:19	
cis-1,2-Dichloroethene	ND	4.2	0.74	1	B6J0781	10/28/2016	10/28/16 13:19	
cis-1,3-Dichloropropene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 13:19	
Di-isopropyl ether	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 13:19	
Dibromochloromethane	ND	4.2	0.85	1	B6J0781	10/28/2016	10/28/16 13:19	
Dibromomethane	ND	4.2	0.84	1	B6J0781	10/28/2016	10/28/16 13:19	
Dichlorodifluoromethane	ND	4.2	1.9	1	B6J0781	10/28/2016	10/28/16 13:19	
Ethyl Acetate	ND	42	8.2	1	B6J0781	10/28/2016	10/28/16 13:19	
Ethyl Ether	ND	42	6.2	1	B6J0781	10/28/2016	10/28/16 13:19	
Ethyl tert-butyl ether	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 13:19	
Ethylbenzene	ND	4.2	0.55	1	B6J0781	10/28/2016	10/28/16 13:19	
Freon-113	ND	4.2	0.89	1	B6J0781	10/28/2016	10/28/16 13:19	
Hexachlorobutadiene	ND	4.2	0.66	1	B6J0781	10/28/2016	10/28/16 13:19	
Isopropylbenzene	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 13:19	
m,p-Xylene	ND	8.5	1.0	1	B6J0781	10/28/2016	10/28/16 13:19	
Methylene chloride	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 13:19	
MTBE	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 13:19	
n-Butylbenzene	ND	4.2	0.63	1	B6J0781	10/28/2016	10/28/16 13:19	
n-Propylbenzene	ND	4.2	0.47	1	B6J0781	10/28/2016	10/28/16 13:19	
Naphthalene	ND	4.2	1.0	1	B6J0781	10/28/2016	10/28/16 13:19	
o-Xylene	ND	4.2	0.73	1	B6J0781	10/28/2016	10/28/16 13:19	
sec-Butylbenzene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 13:19	
Styrene	ND	4.2	0.70	1	B6J0781	10/28/2016	10/28/16 13:19	
tert-Amyl methyl ether	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 13:19	
tert-Butanol	ND	85	5.0	1	B6J0781	10/28/2016	10/28/16 13:19	
tert-Butylbenzene	ND	4.2	0.48	1	B6J0781	10/28/2016	10/28/16 13:19	
Tetrachloroethene	ND	4.2	0.55	1	B6J0781	10/28/2016	10/28/16 13:19	
Toluene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 13:19	
trans-1,2-Dichloroethene	ND	4.2	1.3	1	B6J0781	10/28/2016	10/28/16 13:19	
trans-1,3-Dichloropropene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 13:19	
Trichloroethene	ND	4.2	0.93	1	B6J0781	10/28/2016	10/28/16 13:19	
Trichlorofluoromethane	ND	4.2	0.76	1	B6J0781	10/28/2016	10/28/16 13:19	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID FILL 1-5.0-5.5

Lab ID: 1603730-06

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl acetate	ND	42	4.8	1	B6J0781	10/28/2016	10/28/16 13:19	
Vinyl chloride	ND	4.2	1.7	1	B6J0781	10/28/2016	10/28/16 13:19	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>111 %</i>		<i>12 - 186</i>		B6J0781	10/28/2016	<i>10/28/16 13:19</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>106 %</i>		<i>23 - 162</i>		B6J0781	10/28/2016	<i>10/28/16 13:19</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>106 %</i>		<i>23 - 179</i>		B6J0781	10/28/2016	<i>10/28/16 13:19</i>	
<i>Surrogate: Toluene-d8</i>	<i>105 %</i>		<i>26 - 164</i>		B6J0781	10/28/2016	<i>10/28/16 13:19</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID EB-UF-10-22-16

Lab ID: 1603730-08

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	0.0028	0.010	0.0021	1	B6J0751	10/27/2016	10/28/16 12:21	J
Arsenic	ND	0.010	0.0067	1	B6J0751	10/27/2016	10/28/16 12:21	
Barium	ND	0.0030	0.0008	1	B6J0751	10/27/2016	10/28/16 12:21	
Beryllium	0.0005	0.0030	0.0004	1	B6J0751	10/27/2016	10/28/16 12:21	J
Cadmium	ND	0.0030	0.0002	1	B6J0751	10/27/2016	10/28/16 12:21	
Chromium	ND	0.0030	0.0016	1	B6J0751	10/27/2016	10/28/16 12:21	
Cobalt	ND	0.0030	0.0007	1	B6J0751	10/27/2016	10/28/16 12:21	
Copper	ND	0.0090	0.0023	1	B6J0751	10/27/2016	10/28/16 12:21	
Lead	ND	0.0050	0.0028	1	B6J0751	10/27/2016	10/28/16 12:21	
Molybdenum	0.0011	0.0050	0.0007	1	B6J0751	10/27/2016	10/28/16 12:21	J
Nickel	ND	0.0050	0.0024	1	B6J0751	10/27/2016	10/28/16 12:21	
Selenium	0.0058	0.010	0.0034	1	B6J0751	10/27/2016	10/28/16 12:21	J
Silver	ND	0.0030	0.0006	1	B6J0751	10/27/2016	10/28/16 12:21	
Thallium	0.0028	0.015	0.0026	1	B6J0751	10/27/2016	10/28/16 12:21	J
Vanadium	ND	0.0030	0.0011	1	B6J0751	10/27/2016	10/28/16 12:21	
Zinc	ND	0.025	0.0021	1	B6J0751	10/27/2016	10/28/16 12:21	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: SB

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	0.13	1	B6J0754	10/27/2016	10/27/16 13:57	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.05	0.05	1	B6J0662	10/25/2016	10/25/16 11:10	
Surrogate: 4-Bromofluorobenzene	108 %		70 - 130		B6J0662	10/25/2016	10/25/16 11:10	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	ND	0.05	0.05	1	B6J0774	10/27/2016	10/27/16 17:13	
C23-C36	ND	0.05	0.05	1	B6J0774	10/27/2016	10/27/16 17:13	
Surrogate: p-Terphenyl	35.5 %		20 - 150		B6J0774	10/27/2016	10/27/16 17:13	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID EB-UF-10-22-16

Lab ID: 1603730-08

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
4,4'-DDE	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
4,4'-DDT	ND	0.05	0.004	1	B6J0756	10/27/2016	10/27/16 14:29	
Aldrin	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:29	
alpha-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:29	
alpha-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
beta-BHC	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Chlordane	ND	0.25	0.03	1	B6J0756	10/27/2016	10/27/16 14:29	
delta-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:29	
Dieldrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Endosulfan I	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Endosulfan II	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Endrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Endrin aldehyde	ND	0.05	0.006	1	B6J0756	10/27/2016	10/27/16 14:29	
Endrin ketone	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
gamma-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:29	
gamma-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Heptachlor	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:29	
Methoxychlor	ND	0.25	0.004	1	B6J0756	10/27/2016	10/27/16 14:29	
Toxaphene	ND	2.5	0.23	1	B6J0756	10/27/2016	10/27/16 14:29	
Surrogate: Decachlorobiphenyl	34.2 %		7 - 127		B6J0756	10/27/2016	10/27/16 14:29	
Surrogate: Tetrachloro-m-xylene	69.9 %		14 - 122		B6J0756	10/27/2016	10/27/16 14:29	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID EB-UF-10-22-16

Lab ID: 1603730-08

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1221	ND	1.0	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1232	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1242	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1248	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1254	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1260	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1262	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Aroclor 1268	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 12:54	
Surrogate: Decachlorobiphenyl	45.4 %		7 - 127		B6J0756	10/27/2016	10/28/16 12:54	
Surrogate: Tetrachloro-m-xylene	85.4 %		14 - 122		B6J0756	10/27/2016	10/28/16 12:54	

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 20:19	
1,1,1-Trichloroethane	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 20:19	
1,1,2,2-Tetrachloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 20:19	
1,1,2-Trichloroethane	ND	0.50	0.12	1	B6J0753	10/27/2016	10/27/16 20:19	
1,1-Dichloroethane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:19	
1,1-Dichloroethene	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 20:19	
1,1-Dichloropropene	ND	0.50	0.30	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2,3-Trichloropropane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2,4-Trichlorobenzene	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2,4-Trimethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2-Dibromo-3-chloropropane	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2-Dibromoethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2-Dichlorobenzene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2-Dichloroethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 20:19	
1,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 20:19	
1,3,5-Trimethylbenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:19	
1,3-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:19	
1,3-Dichloropropane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 20:19	
1,4-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:19	
2,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 20:19	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID EB-UF-10-22-16

Lab ID: 1603730-08

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 20:19	
4-Chlorotoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:19	
4-Isopropyltoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:19	
Benzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:19	
Bromobenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:19	
Bromochloromethane	ND	0.50	0.36	1	B6J0753	10/27/2016	10/27/16 20:19	
Bromodichloromethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 20:19	
Bromoform	ND	0.50	0.10	1	B6J0753	10/27/2016	10/27/16 20:19	
Bromomethane	ND	0.50	0.28	1	B6J0753	10/27/2016	10/27/16 20:19	
Carbon disulfide	ND	1.0	0.31	1	B6J0753	10/27/2016	10/27/16 20:19	
Carbon tetrachloride	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:19	
Chlorobenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 20:19	
Chloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 20:19	
Chloroform	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:19	
Chloromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:19	
cis-1,2-Dichloroethene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:19	
cis-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:19	
Di-isopropyl ether	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:19	
Dibromochloromethane	ND	0.50	0.13	1	B6J0753	10/27/2016	10/27/16 20:19	
Dibromomethane	ND	0.50	0.14	1	B6J0753	10/27/2016	10/27/16 20:19	
Dichlorodifluoromethane	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 20:19	
Ethyl Acetate	ND	10	3.4	1	B6J0753	10/27/2016	10/27/16 20:19	
Ethyl Ether	ND	10	1.5	1	B6J0753	10/27/2016	10/27/16 20:19	
Ethyl tert-butyl ether	ND	0.50	0.38	1	B6J0753	10/27/2016	10/27/16 20:19	
Ethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:19	
Freon-113	ND	0.50	0.29	1	B6J0753	10/27/2016	10/27/16 20:19	
Hexachlorobutadiene	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 20:19	
Isopropylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:19	
m,p-Xylene	ND	1.0	0.45	1	B6J0753	10/27/2016	10/27/16 20:19	
Methylene chloride	ND	1.0	0.30	1	B6J0753	10/27/2016	10/27/16 20:19	
MTBE	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:19	
n-Butylbenzene	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 20:19	
n-Propylbenzene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:19	
Naphthalene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:19	
o-Xylene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:19	
sec-Butylbenzene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 20:19	
Styrene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:19	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID EB-UF-10-22-16

Lab ID: 1603730-08

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 20:19	
tert-Butanol	ND	10	1.2	1	B6J0753	10/27/2016	10/27/16 20:19	
tert-Butylbenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 20:19	
Tetrachloroethene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:19	
Toluene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:19	
trans-1,2-Dichloroethene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:19	
trans-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:19	
Trichloroethene	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 20:19	
Trichlorofluoromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:19	
Vinyl acetate	ND	10	1.7	1	B6J0753	10/27/2016	10/27/16 20:19	
Vinyl chloride	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:19	
Surrogate: 1,2-Dichloroethane-d4	103 %		51 - 157		B6J0753	10/27/2016	10/27/16 20:19	
Surrogate: 4-Bromofluorobenzene	108 %		61 - 123		B6J0753	10/27/2016	10/27/16 20:19	
Surrogate: Dibromofluoromethane	99.6 %		57 - 147		B6J0753	10/27/2016	10/27/16 20:19	
Surrogate: Toluene-d8	108 %		61 - 119		B6J0753	10/27/2016	10/27/16 20:19	

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 20:37	
1,2-Dichlorobenzene	ND	10	2.2	1	B6J0681	10/25/2016	10/26/16 20:37	
1,3-Dichlorobenzene	ND	10	2.0	1	B6J0681	10/25/2016	10/26/16 20:37	
1,4-Dichlorobenzene	ND	10	2.1	1	B6J0681	10/25/2016	10/26/16 20:37	
2,4,5-Trichlorophenol	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
2,4,6-Trichlorophenol	ND	10	4.9	1	B6J0681	10/25/2016	10/26/16 20:37	
2,4-Dichlorophenol	ND	10	4.9	1	B6J0681	10/25/2016	10/26/16 20:37	
2,4-Dimethylphenol	ND	10	4.5	1	B6J0681	10/25/2016	10/26/16 20:37	
2,4-Dinitrophenol	ND	50	3.8	1	B6J0681	10/25/2016	10/26/16 20:37	
2,4-Dinitrotoluene	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
2,6-Dinitrotoluene	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 20:37	
2-Chloronaphthalene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 20:37	
2-Chlorophenol	ND	10	4.2	1	B6J0681	10/25/2016	10/26/16 20:37	
2-Methylnaphthalene	ND	10	2.9	1	B6J0681	10/25/2016	10/26/16 20:37	
2-Methylphenol	ND	10	2.2	1	B6J0681	10/25/2016	10/26/16 20:37	
2-Nitroaniline	ND	50	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
2-Nitrophenol	ND	10	4.9	1	B6J0681	10/25/2016	10/26/16 20:37	



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Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID EB-UF-10-22-16

Lab ID: 1603730-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3'-Dichlorobenzidine	ND	20	19	1	B6J0681	10/25/2016	10/26/16 20:37	
3-Nitroaniline	ND	50	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
4,6-Dinitro-2-methylphenol	ND	50	5.9	1	B6J0681	10/25/2016	10/26/16 20:37	
4-Bromophenyl-phenylether	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 20:37	
4-Chloro-3-methylphenol	ND	50	5.4	1	B6J0681	10/25/2016	10/26/16 20:37	
4-Chloroaniline	ND	20	3.4	1	B6J0681	10/25/2016	10/26/16 20:37	
4-Chlorophenyl-phenylether	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
4-Methylphenol	ND	10	2.3	1	B6J0681	10/25/2016	10/26/16 20:37	
4-Nitroaniline	ND	20	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
4-Nitrophenol	ND	50	2.8	1	B6J0681	10/25/2016	10/26/16 20:37	
Acenaphthene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 20:37	
Acenaphthylene	ND	10	2.5	1	B6J0681	10/25/2016	10/26/16 20:37	
Anthracene	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzidine (M)	ND	50	44	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzo(a)anthracene	ND	10	3.5	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzo(a)pyrene	ND	10	4.4	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzo(b)fluoranthene	ND	10	4.5	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzo(g,h,i)perylene	ND	10	4.0	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzo(k)fluoranthene	ND	10	4.4	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzoic acid	ND	50	17	1	B6J0681	10/25/2016	10/26/16 20:37	
Benzyl alcohol	ND	20	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
bis(2-chloroethoxy)methane	ND	10	2.7	1	B6J0681	10/25/2016	10/26/16 20:37	
bis(2-Chloroethyl)ether	ND	10	2.4	1	B6J0681	10/25/2016	10/26/16 20:37	
bis(2-chloroisopropyl)ether	ND	10	2.6	1	B6J0681	10/25/2016	10/26/16 20:37	
bis(2-ethylhexyl)phthalate	ND	10	3.3	1	B6J0681	10/25/2016	10/26/16 20:37	
Butylbenzylphthalate	ND	10	3.3	1	B6J0681	10/25/2016	10/26/16 20:37	
Chrysene	ND	10	3.5	1	B6J0681	10/25/2016	10/26/16 20:37	
Di-n-butylphthalate	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 20:37	
Di-n-octylphthalate	ND	10	3.7	1	B6J0681	10/25/2016	10/26/16 20:37	
Dibenz(a,h)anthracene	ND	10	4.0	1	B6J0681	10/25/2016	10/26/16 20:37	
Dibenzofuran	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
Diethyl phthalate	ND	10	3.4	1	B6J0681	10/25/2016	10/26/16 20:37	
Dimethyl phthalate	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 20:37	
Fluoranthene	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 20:37	
Fluorene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 20:37	
Hexachlorobenzene	ND	10	3.4	1	B6J0681	10/25/2016	10/26/16 20:37	
Hexachlorobutadiene	ND	20	2.8	1	B6J0681	10/25/2016	10/26/16 20:37	



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Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID EB-UF-10-22-16

Lab ID: 1603730-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	10	2.1	1	B6J0681	10/25/2016	10/26/16 20:37	
Hexachloroethane	ND	10	2.1	1	B6J0681	10/25/2016	10/26/16 20:37	
Indeno(1,2,3-cd)pyrene	ND	10	4.3	1	B6J0681	10/25/2016	10/26/16 20:37	
Isophorone	ND	10	2.6	1	B6J0681	10/25/2016	10/26/16 20:37	
N-Nitroso-di-n propylamine	ND	10	2.3	1	B6J0681	10/25/2016	10/26/16 20:37	
N-Nitrosodiphenylamine	ND	10	3.3	1	B6J0681	10/25/2016	10/26/16 20:37	
Naphthalene	ND	10	2.3	1	B6J0681	10/25/2016	10/26/16 20:37	
Nitrobenzene	ND	10	2.7	1	B6J0681	10/25/2016	10/26/16 20:37	
Pentachlorophenol	ND	50	3.6	1	B6J0681	10/25/2016	10/26/16 20:37	
Phenanthrene	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 20:37	
Phenol	ND	10	2.5	1	B6J0681	10/25/2016	10/26/16 20:37	
Pyrene	ND	10	3.0	1	B6J0681	10/25/2016	10/26/16 20:37	
Pyridine	ND	50	10	1	B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: 1,2-Dichlorobenzene-d4	64.2 %	17 - 101			B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: 2,4,6-Tribromophenol	81.6 %	38 - 101			B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: 2-Chlorophenol-d4	61.3 %	21 - 86			B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: 2-Fluorobiphenyl	72.8 %	29 - 109			B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: 2-Fluorophenol	35.3 %	9 - 58			B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: 4-Terphenyl-d14	99.7 %	49 - 122			B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: Nitrobenzene-d5	70.8 %	19 - 111			B6J0681	10/25/2016	10/26/16 20:37	
Surrogate: Phenol-d5	25.8 %	6 - 50			B6J0681	10/25/2016	10/26/16 20:37	



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID Trip Blank

Lab ID: 1603730-09

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.05	0.05	1	B6J0743	10/27/2016	10/27/16 11:28	
Surrogate: 4-Bromofluorobenzene	112 %		70 - 130		B6J0743	10/27/2016	10/27/16 11:28	

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 19:55	
1,1,1-Trichloroethane	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 19:55	
1,1,2,2-Tetrachloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 19:55	
1,1,2-Trichloroethane	ND	0.50	0.12	1	B6J0753	10/27/2016	10/27/16 19:55	
1,1-Dichloroethane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 19:55	
1,1-Dichloroethene	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 19:55	
1,1-Dichloropropene	ND	0.50	0.30	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2,3-Trichloropropane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2,4-Trichlorobenzene	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2,4-Trimethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2-Dibromo-3-chloropropane	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2-Dibromoethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2-Dichlorobenzene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2-Dichloroethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 19:55	
1,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 19:55	
1,3,5-Trimethylbenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 19:55	
1,3-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 19:55	
1,3-Dichloropropane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 19:55	
1,4-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 19:55	
2,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 19:55	
2-Chlorotoluene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 19:55	
4-Chlorotoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 19:55	
4-Isopropyltoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 19:55	
Benzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 19:55	
Bromobenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 19:55	
Bromochloromethane	ND	0.50	0.36	1	B6J0753	10/27/2016	10/27/16 19:55	
Bromodichloromethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 19:55	
Bromoform	ND	0.50	0.10	1	B6J0753	10/27/2016	10/27/16 19:55	
Bromomethane	ND	0.50	0.28	1	B6J0753	10/27/2016	10/27/16 19:55	



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Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID Trip Blank

Lab ID: 1603730-09

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon disulfide	ND	1.0	0.31	1	B6J0753	10/27/2016	10/27/16 19:55	
Carbon tetrachloride	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 19:55	
Chlorobenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 19:55	
Chloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 19:55	
Chloroform	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 19:55	
Chloromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 19:55	
cis-1,2-Dichloroethene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 19:55	
cis-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 19:55	
Di-isopropyl ether	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 19:55	
Dibromochloromethane	ND	0.50	0.13	1	B6J0753	10/27/2016	10/27/16 19:55	
Dibromomethane	ND	0.50	0.14	1	B6J0753	10/27/2016	10/27/16 19:55	
Dichlorodifluoromethane	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 19:55	
Ethyl Acetate	ND	10	3.4	1	B6J0753	10/27/2016	10/27/16 19:55	
Ethyl Ether	ND	10	1.5	1	B6J0753	10/27/2016	10/27/16 19:55	
Ethyl tert-butyl ether	ND	0.50	0.38	1	B6J0753	10/27/2016	10/27/16 19:55	
Ethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 19:55	
Freon-113	ND	0.50	0.29	1	B6J0753	10/27/2016	10/27/16 19:55	
Hexachlorobutadiene	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 19:55	
Isopropylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 19:55	
m,p-Xylene	ND	1.0	0.45	1	B6J0753	10/27/2016	10/27/16 19:55	
Methylene chloride	ND	1.0	0.30	1	B6J0753	10/27/2016	10/27/16 19:55	
MTBE	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 19:55	
n-Butylbenzene	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 19:55	
n-Propylbenzene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 19:55	
Naphthalene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 19:55	
o-Xylene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 19:55	
sec-Butylbenzene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 19:55	
Styrene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 19:55	
tert-Amyl methyl ether	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 19:55	
tert-Butanol	ND	10	1.2	1	B6J0753	10/27/2016	10/27/16 19:55	
tert-Butylbenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 19:55	
Tetrachloroethene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 19:55	
Toluene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 19:55	
trans-1,2-Dichloroethene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 19:55	
trans-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 19:55	
Trichloroethene	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 19:55	
Trichlorofluoromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 19:55	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Trip Blank

Lab ID: 1603730-09

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl acetate	ND	10	1.7	1	B6J0753	10/27/2016	10/27/16 19:55	
Vinyl chloride	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 19:55	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>102 %</i>		<i>51 - 157</i>		B6J0753	10/27/2016	<i>10/27/16 19:55</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>108 %</i>		<i>61 - 123</i>		B6J0753	10/27/2016	<i>10/27/16 19:55</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>98.2 %</i>		<i>57 - 147</i>		B6J0753	10/27/2016	<i>10/27/16 19:55</i>	
<i>Surrogate: Toluene-d8</i>	<i>106 %</i>		<i>61 - 119</i>		B6J0753	10/27/2016	<i>10/27/16 19:55</i>	



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Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Composite 1

Lab ID: 1603730-10

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6K0229	11/05/2016	11/07/16 11:34	
Arsenic	3.0	1.0	0.70	1	B6K0229	11/05/2016	11/07/16 11:34	
Barium	74	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:34	
Beryllium	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 11:34	
Cadmium	0.13	1.0	0.09	1	B6K0229	11/05/2016	11/07/16 11:34	J
Chromium	10	1.0	0.12	1	B6K0229	11/05/2016	11/07/16 11:34	
Cobalt	4.8	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:34	
Copper	8.0	2.0	0.11	1	B6K0229	11/05/2016	11/07/16 11:34	
Lead	6.9	1.0	0.11	1	B6K0229	11/05/2016	11/07/16 11:34	
Molybdenum	ND	1.0	0.13	1	B6K0229	11/05/2016	11/07/16 11:34	
Nickel	6.7	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:34	
Selenium	ND	1.0	0.88	1	B6K0229	11/05/2016	11/07/16 11:34	
Silver	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 11:34	
Thallium	ND	1.0	0.42	1	B6K0229	11/05/2016	11/07/16 11:34	
Vanadium	33	1.0	0.19	1	B6K0229	11/05/2016	11/07/16 11:34	
Zinc	23	1.0	0.18	1	B6K0229	11/05/2016	11/07/16 11:34	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6K0224	11/05/2016	11/07/16 08:16	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.7	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 21:46	
C23-C36	3.4	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 21:46	
Surrogate: p-Terphenyl	50.7 %		18 - 130		B6K0069	11/01/2016	11/01/16 21:46	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID Composite 1

Lab ID: 1603730-10

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0035	11/01/2016	11/03/16 19:00	
4,4'-DDE	ND	2.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:00	
4,4'-DDT	ND	2.0	0.13	1	B6K0035	11/01/2016	11/03/16 19:00	
Aldrin	ND	1.0	0.27	1	B6K0035	11/01/2016	11/03/16 19:00	
alpha-BHC	ND	1.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:00	
alpha-Chlordane	ND	1.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:00	
beta-BHC	ND	1.0	0.23	1	B6K0035	11/01/2016	11/03/16 19:00	
Chlordane	ND	8.5	0.90	1	B6K0035	11/01/2016	11/03/16 19:00	
delta-BHC	ND	1.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:00	
Dieldrin	ND	2.0	0.25	1	B6K0035	11/01/2016	11/03/16 19:00	
Endosulfan I	ND	1.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:00	
Endosulfan II	ND	2.0	0.22	1	B6K0035	11/01/2016	11/03/16 19:00	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:00	
Endrin	ND	2.0	0.23	1	B6K0035	11/01/2016	11/03/16 19:00	
Endrin aldehyde	ND	2.0	0.28	1	B6K0035	11/01/2016	11/03/16 19:00	
Endrin ketone	ND	2.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:00	
gamma-BHC	ND	1.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:00	
gamma-Chlordane	ND	1.0	0.23	1	B6K0035	11/01/2016	11/03/16 19:00	
Heptachlor	ND	1.0	0.19	1	B6K0035	11/01/2016	11/03/16 19:00	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:00	
Methoxychlor	ND	5.0	0.18	1	B6K0035	11/01/2016	11/03/16 19:00	
Toxaphene	ND	50	8.2	1	B6K0035	11/01/2016	11/03/16 19:00	
Surrogate: Decachlorobiphenyl	65.6 %		27 - 123		B6K0035	11/01/2016	11/03/16 19:00	
Surrogate: Tetrachloro-m-xylene	73.2 %		26 - 108		B6K0035	11/01/2016	11/03/16 19:00	



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Lab ID: 1603730-10

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1221	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1232	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1242	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1248	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1254	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1260	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1262	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Aroclor 1268	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 14:39	
Surrogate: Decachlorobiphenyl	98.7 %		26 - 137		B6K0035	11/01/2016	11/01/16 14:39	
Surrogate: Tetrachloro-m-xylene	94.0 %		28 - 102		B6K0035	11/01/2016	11/01/16 14:39	

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6K0118	11/02/2016	11/04/16 03:51	
1,2-Dichlorobenzene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 03:51	
1,3-Dichlorobenzene	ND	330	65	1	B6K0118	11/02/2016	11/04/16 03:51	
1,4-Dichlorobenzene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 03:51	
2,4,5-Trichlorophenol	ND	330	61	1	B6K0118	11/02/2016	11/04/16 03:51	
2,4,6-Trichlorophenol	ND	330	220	1	B6K0118	11/02/2016	11/04/16 03:51	
2,4-Dichlorophenol	ND	1600	120	1	B6K0118	11/02/2016	11/04/16 03:51	
2,4-Dimethylphenol	ND	330	120	1	B6K0118	11/02/2016	11/04/16 03:51	
2,4-Dinitrophenol	ND	1600	86	1	B6K0118	11/02/2016	11/04/16 03:51	
2,4-Dinitrotoluene	ND	330	46	1	B6K0118	11/02/2016	11/04/16 03:51	
2,6-Dinitrotoluene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 03:51	
2-Chloronaphthalene	ND	330	59	1	B6K0118	11/02/2016	11/04/16 03:51	
2-Chlorophenol	ND	330	120	1	B6K0118	11/02/2016	11/04/16 03:51	
2-Methylnaphthalene	ND	330	67	1	B6K0118	11/02/2016	11/04/16 03:51	
2-Methylphenol	ND	330	67	1	B6K0118	11/02/2016	11/04/16 03:51	
2-Nitroaniline	ND	1600	200	1	B6K0118	11/02/2016	11/04/16 03:51	
2-Nitrophenol	ND	330	110	1	B6K0118	11/02/2016	11/04/16 03:51	
3,3'-Dichlorobenzidine	ND	660	280	1	B6K0118	11/02/2016	11/04/16 03:51	
3-Nitroaniline	ND	1600	44	1	B6K0118	11/02/2016	11/04/16 03:51	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6K0118	11/02/2016	11/04/16 03:51	
4-Bromophenyl-phenylether	ND	330	50	1	B6K0118	11/02/2016	11/04/16 03:51	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID Composite 1

Lab ID: 1603730-10

Semivolatle Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chloro-3-methylphenol	ND	660	110	1	B6K0118	11/02/2016	11/04/16 03:51	
4-Chloroaniline	ND	660	53	1	B6K0118	11/02/2016	11/04/16 03:51	
4-Chlorophenyl-phenylether	ND	330	48	1	B6K0118	11/02/2016	11/04/16 03:51	
4-Methylphenol	ND	330	66	1	B6K0118	11/02/2016	11/04/16 03:51	
4-Nitroaniline	ND	1600	290	1	B6K0118	11/02/2016	11/04/16 03:51	
4-Nitrophenol	ND	330	150	1	B6K0118	11/02/2016	11/04/16 03:51	
Acenaphthene	ND	330	48	1	B6K0118	11/02/2016	11/04/16 03:51	
Acenaphthylene	ND	330	51	1	B6K0118	11/02/2016	11/04/16 03:51	
Anthracene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzidine (M)	ND	1600	1400	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzo(a)anthracene	ND	330	39	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzo(a)pyrene	ND	330	45	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzo(b)fluoranthene	ND	330	55	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzo(g,h,i)perylene	ND	330	38	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzo(k)fluoranthene	ND	330	52	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzoic acid	ND	1600	890	1	B6K0118	11/02/2016	11/04/16 03:51	
Benzyl alcohol	ND	660	67	1	B6K0118	11/02/2016	11/04/16 03:51	
bis(2-chloroethoxy)methane	ND	330	59	1	B6K0118	11/02/2016	11/04/16 03:51	
bis(2-Chloroethyl)ether	ND	330	57	1	B6K0118	11/02/2016	11/04/16 03:51	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6K0118	11/02/2016	11/04/16 03:51	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6K0118	11/02/2016	11/04/16 03:51	
Butylbenzylphthalate	ND	330	250	1	B6K0118	11/02/2016	11/04/16 03:51	
Chrysene	ND	330	43	1	B6K0118	11/02/2016	11/04/16 03:51	
Di-n-butylphthalate	ND	330	230	1	B6K0118	11/02/2016	11/04/16 03:51	
Di-n-octylphthalate	ND	330	48	1	B6K0118	11/02/2016	11/04/16 03:51	
Dibenz(a,h)anthracene	ND	330	43	1	B6K0118	11/02/2016	11/04/16 03:51	
Dibenzofuran	ND	330	55	1	B6K0118	11/02/2016	11/04/16 03:51	
Diethyl phthalate	ND	330	47	1	B6K0118	11/02/2016	11/04/16 03:51	
Dimethyl phthalate	ND	330	46	1	B6K0118	11/02/2016	11/04/16 03:51	
Fluoranthene	ND	330	47	1	B6K0118	11/02/2016	11/04/16 03:51	
Fluorene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 03:51	
Hexachlorobenzene	ND	330	41	1	B6K0118	11/02/2016	11/04/16 03:51	
Hexachlorobutadiene	ND	660	61	1	B6K0118	11/02/2016	11/04/16 03:51	
Hexachlorocyclopentadiene	ND	660	64	1	B6K0118	11/02/2016	11/04/16 03:51	
Hexachloroethane	ND	330	71	1	B6K0118	11/02/2016	11/04/16 03:51	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6K0118	11/02/2016	11/04/16 03:51	
Isophorone	ND	330	57	1	B6K0118	11/02/2016	11/04/16 03:51	



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Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID Composite 1

Lab ID: 1603730-10

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
N-Nitroso-di-n propylamine	ND	330	65	1	B6K0118	11/02/2016	11/04/16 03:51	
N-Nitrosodiphenylamine	ND	330	48	1	B6K0118	11/02/2016	11/04/16 03:51	
Naphthalene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 03:51	
Nitrobenzene	ND	330	67	1	B6K0118	11/02/2016	11/04/16 03:51	
Pentachlorophenol	ND	1600	190	1	B6K0118	11/02/2016	11/04/16 03:51	
Phenanthrene	ND	330	46	1	B6K0118	11/02/2016	11/04/16 03:51	
Phenol	ND	330	130	1	B6K0118	11/02/2016	11/04/16 03:51	
Pyrene	ND	330	53	1	B6K0118	11/02/2016	11/04/16 03:51	
Pyridine	ND	1600	270	1	B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: 1,2-Dichlorobenzene-d4	69.2 %		22 - 107		B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: 2,4,6-Tribromophenol	83.1 %		12 - 129		B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: 2-Chlorophenol-d4	67.7 %		34 - 102		B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: 2-Fluorobiphenyl	73.0 %		25 - 116		B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: 2-Fluorophenol	62.5 %		32 - 101		B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: 4-Terphenyl-d14	86.8 %		34 - 125		B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: Nitrobenzene-d5	67.3 %		30 - 115		B6K0118	11/02/2016	11/04/16 03:51	
Surrogate: Phenol-d5	67.8 %		34 - 104		B6K0118	11/02/2016	11/04/16 03:51	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Composite 2

Lab ID: 1603730-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6K0229	11/05/2016	11/07/16 11:53	
Arsenic	3.5	1.0	0.70	1	B6K0229	11/05/2016	11/07/16 11:53	
Barium	42	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:53	
Beryllium	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 11:53	
Cadmium	0.14	1.0	0.09	1	B6K0229	11/05/2016	11/07/16 11:53	J
Chromium	10	1.0	0.12	1	B6K0229	11/05/2016	11/07/16 11:53	
Cobalt	2.6	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:53	
Copper	5.1	2.0	0.11	1	B6K0229	11/05/2016	11/07/16 11:53	
Lead	1.3	1.0	0.11	1	B6K0229	11/05/2016	11/07/16 11:53	
Molybdenum	ND	1.0	0.13	1	B6K0229	11/05/2016	11/07/16 11:53	
Nickel	5.6	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:53	
Selenium	ND	1.0	0.88	1	B6K0229	11/05/2016	11/07/16 11:53	
Silver	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 11:53	
Thallium	ND	1.0	0.42	1	B6K0229	11/05/2016	11/07/16 11:53	
Vanadium	24	1.0	0.19	1	B6K0229	11/05/2016	11/07/16 11:53	
Zinc	17	1.0	0.18	1	B6K0229	11/05/2016	11/07/16 11:53	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6K0224	11/05/2016	11/07/16 08:27	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.5	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 21:29	
C23-C36	1.8	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 21:29	
Surrogate: <i>p</i> -Terphenyl	61.5 %		18 - 130		B6K0069	11/01/2016	11/01/16 21:29	



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Lab ID: 1603730-11

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0035	11/01/2016	11/03/16 19:10	
4,4'-DDE	ND	2.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:10	
4,4'-DDT	ND	2.0	0.13	1	B6K0035	11/01/2016	11/03/16 19:10	
Aldrin	ND	1.0	0.27	1	B6K0035	11/01/2016	11/03/16 19:10	
alpha-BHC	ND	1.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:10	
alpha-Chlordane	ND	1.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:10	
beta-BHC	ND	1.0	0.23	1	B6K0035	11/01/2016	11/03/16 19:10	
Chlordane	ND	8.5	0.90	1	B6K0035	11/01/2016	11/03/16 19:10	
delta-BHC	ND	1.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:10	
Dieldrin	ND	2.0	0.25	1	B6K0035	11/01/2016	11/03/16 19:10	
Endosulfan I	ND	1.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:10	
Endosulfan II	ND	2.0	0.22	1	B6K0035	11/01/2016	11/03/16 19:10	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0035	11/01/2016	11/03/16 19:10	
Endrin	ND	2.0	0.23	1	B6K0035	11/01/2016	11/03/16 19:10	
Endrin aldehyde	ND	2.0	0.28	1	B6K0035	11/01/2016	11/03/16 19:10	
Endrin ketone	ND	2.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:10	
gamma-BHC	ND	1.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:10	
gamma-Chlordane	ND	1.0	0.23	1	B6K0035	11/01/2016	11/03/16 19:10	
Heptachlor	ND	1.0	0.19	1	B6K0035	11/01/2016	11/03/16 19:10	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0035	11/01/2016	11/03/16 19:10	
Methoxychlor	ND	5.0	0.18	1	B6K0035	11/01/2016	11/03/16 19:10	
Toxaphene	ND	50	8.2	1	B6K0035	11/01/2016	11/03/16 19:10	
Surrogate: Decachlorobiphenyl	53.7 %		27 - 123		B6K0035	11/01/2016	11/03/16 19:10	
Surrogate: Tetrachloro-m-xylene	58.3 %		26 - 108		B6K0035	11/01/2016	11/03/16 19:10	



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Client Sample ID Composite 2

Lab ID: 1603730-11

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1221	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1232	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1242	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1248	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1254	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1260	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1262	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Aroclor 1268	ND	16	1.5	1	B6K0035	11/01/2016	11/01/16 15:37	
Surrogate: Decachlorobiphenyl	89.2 %		26 - 137		B6K0035	11/01/2016	11/01/16 15:37	
Surrogate: Tetrachloro-m-xylene	79.2 %		28 - 102		B6K0035	11/01/2016	11/01/16 15:37	

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6K0118	11/02/2016	11/04/16 04:18	
1,2-Dichlorobenzene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 04:18	
1,3-Dichlorobenzene	ND	330	65	1	B6K0118	11/02/2016	11/04/16 04:18	
1,4-Dichlorobenzene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 04:18	
2,4,5-Trichlorophenol	ND	330	61	1	B6K0118	11/02/2016	11/04/16 04:18	
2,4,6-Trichlorophenol	ND	330	220	1	B6K0118	11/02/2016	11/04/16 04:18	
2,4-Dichlorophenol	ND	1600	120	1	B6K0118	11/02/2016	11/04/16 04:18	
2,4-Dimethylphenol	ND	330	120	1	B6K0118	11/02/2016	11/04/16 04:18	
2,4-Dinitrophenol	ND	1600	86	1	B6K0118	11/02/2016	11/04/16 04:18	
2,4-Dinitrotoluene	ND	330	46	1	B6K0118	11/02/2016	11/04/16 04:18	
2,6-Dinitrotoluene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 04:18	
2-Chloronaphthalene	ND	330	59	1	B6K0118	11/02/2016	11/04/16 04:18	
2-Chlorophenol	ND	330	120	1	B6K0118	11/02/2016	11/04/16 04:18	
2-Methylnaphthalene	ND	330	67	1	B6K0118	11/02/2016	11/04/16 04:18	
2-Methylphenol	ND	330	67	1	B6K0118	11/02/2016	11/04/16 04:18	
2-Nitroaniline	ND	1600	200	1	B6K0118	11/02/2016	11/04/16 04:18	
2-Nitrophenol	ND	330	110	1	B6K0118	11/02/2016	11/04/16 04:18	
3,3'-Dichlorobenzidine	ND	660	280	1	B6K0118	11/02/2016	11/04/16 04:18	
3-Nitroaniline	ND	1600	44	1	B6K0118	11/02/2016	11/04/16 04:18	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6K0118	11/02/2016	11/04/16 04:18	
4-Bromophenyl-phenylether	ND	330	50	1	B6K0118	11/02/2016	11/04/16 04:18	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID Composite 2

Lab ID: 1603730-11

Semivolatle Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chloro-3-methylphenol	ND	660	110	1	B6K0118	11/02/2016	11/04/16 04:18	
4-Chloroaniline	ND	660	53	1	B6K0118	11/02/2016	11/04/16 04:18	
4-Chlorophenyl-phenylether	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:18	
4-Methylphenol	ND	330	66	1	B6K0118	11/02/2016	11/04/16 04:18	
4-Nitroaniline	ND	1600	290	1	B6K0118	11/02/2016	11/04/16 04:18	
4-Nitrophenol	ND	330	150	1	B6K0118	11/02/2016	11/04/16 04:18	
Acenaphthene	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:18	
Acenaphthylene	ND	330	51	1	B6K0118	11/02/2016	11/04/16 04:18	
Anthracene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzidine (M)	ND	1600	1400	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzo(a)anthracene	ND	330	39	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzo(a)pyrene	ND	330	45	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzo(b)fluoranthene	ND	330	55	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzo(g,h,i)perylene	ND	330	38	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzo(k)fluoranthene	ND	330	52	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzoic acid	ND	1600	890	1	B6K0118	11/02/2016	11/04/16 04:18	
Benzyl alcohol	ND	660	67	1	B6K0118	11/02/2016	11/04/16 04:18	
bis(2-chloroethoxy)methane	ND	330	59	1	B6K0118	11/02/2016	11/04/16 04:18	
bis(2-Chloroethyl)ether	ND	330	57	1	B6K0118	11/02/2016	11/04/16 04:18	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6K0118	11/02/2016	11/04/16 04:18	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6K0118	11/02/2016	11/04/16 04:18	
Butylbenzylphthalate	ND	330	250	1	B6K0118	11/02/2016	11/04/16 04:18	
Chrysene	ND	330	43	1	B6K0118	11/02/2016	11/04/16 04:18	
Di-n-butylphthalate	ND	330	230	1	B6K0118	11/02/2016	11/04/16 04:18	
Di-n-octylphthalate	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:18	
Dibenz(a,h)anthracene	ND	330	43	1	B6K0118	11/02/2016	11/04/16 04:18	
Dibenzofuran	ND	330	55	1	B6K0118	11/02/2016	11/04/16 04:18	
Diethyl phthalate	ND	330	47	1	B6K0118	11/02/2016	11/04/16 04:18	
Dimethyl phthalate	ND	330	46	1	B6K0118	11/02/2016	11/04/16 04:18	
Fluoranthene	ND	330	47	1	B6K0118	11/02/2016	11/04/16 04:18	
Fluorene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 04:18	
Hexachlorobenzene	ND	330	41	1	B6K0118	11/02/2016	11/04/16 04:18	
Hexachlorobutadiene	ND	660	61	1	B6K0118	11/02/2016	11/04/16 04:18	
Hexachlorocyclopentadiene	ND	660	64	1	B6K0118	11/02/2016	11/04/16 04:18	
Hexachloroethane	ND	330	71	1	B6K0118	11/02/2016	11/04/16 04:18	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6K0118	11/02/2016	11/04/16 04:18	
Isophorone	ND	330	57	1	B6K0118	11/02/2016	11/04/16 04:18	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Client Sample ID Composite 2

Lab ID: 1603730-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
N-Nitroso-di-n propylamine	ND	330	65	1	B6K0118	11/02/2016	11/04/16 04:18	
N-Nitrosodiphenylamine	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:18	
Naphthalene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 04:18	
Nitrobenzene	ND	330	67	1	B6K0118	11/02/2016	11/04/16 04:18	
Pentachlorophenol	ND	1600	190	1	B6K0118	11/02/2016	11/04/16 04:18	
Phenanthrene	ND	330	46	1	B6K0118	11/02/2016	11/04/16 04:18	
Phenol	ND	330	130	1	B6K0118	11/02/2016	11/04/16 04:18	
Pyrene	ND	330	53	1	B6K0118	11/02/2016	11/04/16 04:18	
Pyridine	ND	1600	270	1	B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: 1,2-Dichlorobenzene-d4	69.2 %		22 - 107		B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: 2,4,6-Tribromophenol	86.8 %		12 - 129		B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: 2-Chlorophenol-d4	69.1 %		34 - 102		B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: 2-Fluorobiphenyl	76.4 %		25 - 116		B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: 2-Fluorophenol	61.8 %		32 - 101		B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: 4-Terphenyl-d14	93.1 %		34 - 125		B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: Nitrobenzene-d5	69.7 %		30 - 115		B6K0118	11/02/2016	11/04/16 04:18	
Surrogate: Phenol-d5	68.7 %		34 - 104		B6K0118	11/02/2016	11/04/16 04:18	



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Report To : John Nordenstam

Reported : 11/08/2016

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W

Blank (B6J0751-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	ND	0.010			NR				
Arsenic	ND	0.010			NR				
Barium	ND	0.0030			NR				
Beryllium	ND	0.0030			NR				
Cadmium	ND	0.0030			NR				
Chromium	ND	0.0030			NR				
Cobalt	ND	0.0030			NR				
Copper	ND	0.0090			NR				
Lead	ND	0.0050			NR				
Molybdenum	ND	0.0050			NR				
Nickel	ND	0.0050			NR				
Selenium	0.004270	0.010			NR				J
Silver	ND	0.0030			NR				
Thallium	ND	0.015			NR				
Vanadium	ND	0.0030			NR				
Zinc	ND	0.025			NR				

LCS (B6J0751-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	0.898377	0.010	1.00000		89.8	80 - 120			
Arsenic	0.895492	0.010	1.00000		89.5	80 - 120			
Barium	0.964396	0.0030	1.00000		96.4	80 - 120			
Beryllium	0.961408	0.0030	1.00000		96.1	80 - 120			
Cadmium	0.928815	0.0030	1.00000		92.9	80 - 120			
Chromium	0.965730	0.0030	1.00000		96.6	80 - 120			
Cobalt	0.945595	0.0030	1.00000		94.6	80 - 120			
Copper	1.00626	0.0090	1.00000		101	80 - 120			
Lead	0.939372	0.0050	1.00000		93.9	80 - 120			
Molybdenum	0.938843	0.0050	1.00000		93.9	80 - 120			
Nickel	0.932543	0.0050	1.00000		93.3	80 - 120			
Selenium	0.865757	0.010	1.00000		86.6	80 - 120			
Silver	0.970209	0.0030	1.00000		97.0	80 - 120			
Thallium	0.949487	0.015	1.00000		94.9	80 - 120			
Vanadium	0.956655	0.0030	1.00000		95.7	80 - 120			
Zinc	0.905008	0.025	1.00000		90.5	80 - 120			

Duplicate (B6J0751-DUP1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	0.028335	0.010		0.028077	NR	0.915	20		
Arsenic	0.031794	0.010		0.030741	NR	3.37	20		
Barium	0.046911	0.0030		0.047026	NR	0.243	20		
Beryllium	0.000619	0.0030		0.000723	NR	15.4	20	J	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W (continued)

Duplicate (B6J0751-DUP1) - Continued

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Cadmium	0.008692	0.0030		0.008895	NR		2.31	20	
Chromium	0.226469	0.0030		0.229568	NR		1.36	20	
Cobalt	0.009954	0.0030		0.010281	NR		3.24	20	
Copper	0.066991	0.0090		0.068634	NR		2.42	20	
Lead	ND	0.0050		ND	NR			20	
Molybdenum	0.135758	0.0050		0.138068	NR		1.69	20	
Nickel	0.867118	0.0050		0.876803	NR		1.11	20	
Selenium	0.007675	0.010		4.6609E-3	NR		48.9	20	R, J
Silver	ND	0.0030		ND	NR			20	
Thallium	ND	0.015		ND	NR			20	
Vanadium	0.178865	0.0030		0.181667	NR		1.55	20	
Zinc	0.655494	0.025		0.663915	NR		1.28	20	

Matrix Spike (B6J0751-MS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	2.24067	0.010	2.50000	0.028077	88.5	76 - 118		
Arsenic	2.27050	0.010	2.50000	0.030741	89.6	74 - 123		
Barium	2.38965	0.0030	2.50000	0.047026	93.7	76 - 117		
Beryllium	2.33196	0.0030	2.50000	0.000723	93.2	84 - 114		
Cadmium	2.25071	0.0030	2.50000	0.008895	89.7	73 - 115		
Chromium	2.53643	0.0030	2.50000	0.229568	92.3	76 - 117		
Cobalt	2.34222	0.0030	2.50000	0.010281	93.3	78 - 113		
Copper	2.66179	0.0090	2.50000	0.068634	104	70 - 132		
Lead	2.29533	0.0050	2.50000	ND	91.8	78 - 109		
Molybdenum	2.45700	0.0050	2.50000	0.138068	92.8	84 - 111		
Nickel	3.16475	0.0050	2.50000	0.876803	91.5	66 - 125		
Selenium	2.08360	0.010	2.50000	4.6609E-3	83.2	76 - 117		
Silver	2.38309	0.0030	2.50000	ND	95.3	64 - 133		
Thallium	2.19292	0.015	2.50000	ND	87.7	63 - 118		
Vanadium	2.54727	0.0030	2.50000	0.181667	94.6	76 - 119		
Zinc	3.00323	0.025	2.50000	0.663915	93.6	56 - 131		

Matrix Spike Dup (B6J0751-MSD1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	2.06647	0.010	2.50000	0.028077	81.5	76 - 118	8.09	20
Arsenic	2.10355	0.010	2.50000	0.030741	82.9	74 - 123	7.63	20
Barium	2.21869	0.0030	2.50000	0.047026	86.9	76 - 117	7.42	20
Beryllium	2.14720	0.0030	2.50000	0.000723	85.9	84 - 114	8.25	20
Cadmium	2.08865	0.0030	2.50000	0.008895	83.2	73 - 115	7.47	20
Chromium	2.35172	0.0030	2.50000	0.229568	84.9	76 - 117	7.56	20
Cobalt	2.17633	0.0030	2.50000	0.010281	86.6	78 - 113	7.34	20
Copper	2.46898	0.0090	2.50000	0.068634	96.0	70 - 132	7.52	20
Lead	2.12708	0.0050	2.50000	ND	85.1	78 - 109	7.61	20
Molybdenum	2.27457	0.0050	2.50000	0.138068	85.5	84 - 111	7.71	20



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W (continued)

Matrix Spike Dup (B6J0751-MSD1) - Continued

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Nickel	2.92664	0.0050	2.50000	0.876803	82.0	66 - 125	7.82	20	
Selenium	1.94120	0.010	2.50000	4.6609E-3	77.5	76 - 117	7.08	20	
Silver	2.21274	0.0030	2.50000	ND	88.5	64 - 133	7.41	20	
Thallium	2.02811	0.015	2.50000	ND	81.1	63 - 118	7.81	20	
Vanadium	2.35250	0.0030	2.50000	0.181667	86.8	76 - 119	7.95	20	
Zinc	2.78904	0.025	2.50000	0.663915	85.0	56 - 131	7.40	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S

Blank (B6K0229-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	1.10770	2.0			NR				J
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	0.363399	1.0			NR				J
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	0.559874	1.0			NR				J

LCS (B6K0229-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	45.5051	2.0	50.0000		91.0	80 - 120			
Arsenic	43.1219	1.0	50.0000		86.2	80 - 120			
Barium	49.1519	1.0	50.0000		98.3	80 - 120			
Beryllium	48.3302	1.0	50.0000		96.7	80 - 120			
Cadmium	46.4037	1.0	50.0000		92.8	80 - 120			
Chromium	45.8652	1.0	50.0000		91.7	80 - 120			
Cobalt	47.9771	1.0	50.0000		96.0	80 - 120			
Copper	52.2430	2.0	50.0000		104	80 - 120			
Lead	48.3115	1.0	50.0000		96.6	80 - 120			
Molybdenum	47.8710	1.0	50.0000		95.7	80 - 120			
Nickel	47.7532	1.0	50.0000		95.5	80 - 120			
Selenium	40.7099	1.0	50.0000		81.4	80 - 120			
Silver	49.0272	1.0	50.0000		98.1	80 - 120			
Thallium	46.9539	1.0	50.0000		93.9	80 - 120			
Vanadium	49.8605	1.0	50.0000		99.7	80 - 120			
Zinc	45.0477	1.0	50.0000		90.1	80 - 120			

Duplicate (B6K0229-DUP1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	ND	2.0		ND	NR			20	
Arsenic	2.80174	1.0		2.97962	NR		6.15	20	
Barium	56.6238	1.0		74.2821	NR		27.0	20	R
Beryllium	ND	1.0		ND	NR			20	
Cadmium	0.116497	1.0		0.131128	NR		11.8	20	J
Chromium	8.71996	1.0		10.3073	NR		16.7	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S (continued)

Duplicate (B6K0229-DUP1) - Continued

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Cobalt	2.94698	1.0		4.84730	NR		48.8	20	R
Copper	7.22094	2.0		8.04672	NR		10.8	20	
Lead	8.01555	1.0		6.91284	NR		14.8	20	
Molybdenum	ND	1.0		ND	NR			20	
Nickel	5.64630	1.0		6.72532	NR		17.4	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	27.2420	1.0		32.9912	NR		19.1	20	
Zinc	20.5682	1.0		23.4546	NR		13.1	20	

Matrix Spike (B6K0229-MS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	89.9490	2.0	125.000	ND	72.0	34 - 103			
Arsenic	98.5760	1.0	125.000	2.97962	76.5	59 - 103			
Barium	165.983	1.0	125.000	74.2821	73.4	30 - 134			
Beryllium	103.037	1.0	125.000	ND	82.4	62 - 105			
Cadmium	98.0460	1.0	125.000	0.131128	78.3	53 - 102			
Chromium	104.057	1.0	125.000	10.3073	75.0	51 - 111			
Cobalt	104.077	1.0	125.000	4.84730	79.4	55 - 105			
Copper	118.076	2.0	125.000	8.04672	88.0	53 - 126			
Lead	109.682	1.0	125.000	6.91284	82.2	34 - 129			
Molybdenum	102.498	1.0	125.000	ND	82.0	57 - 105			
Nickel	107.139	1.0	125.000	6.72532	80.3	49 - 109			
Selenium	90.3816	1.0	125.000	ND	72.3	57 - 99			
Silver	101.481	1.0	125.000	ND	81.2	64 - 105			
Thallium	97.7323	1.0	125.000	ND	78.2	46 - 105			
Vanadium	137.939	1.0	125.000	32.9912	84.0	60 - 109			
Zinc	118.404	1.0	250.000	23.4546	38.0	29 - 122			

Matrix Spike Dup (B6K0229-MSD1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	90.6710	2.0	125.000	ND	72.5	34 - 103	0.799	20	
Arsenic	99.5055	1.0	125.000	2.97962	77.2	59 - 103	0.939	20	
Barium	178.567	1.0	125.000	74.2821	83.4	30 - 134	7.30	20	
Beryllium	105.050	1.0	125.000	ND	84.0	62 - 105	1.93	20	
Cadmium	99.4111	1.0	125.000	0.131128	79.4	53 - 102	1.38	20	
Chromium	106.656	1.0	125.000	10.3073	77.1	51 - 111	2.47	20	
Cobalt	105.876	1.0	125.000	4.84730	80.8	55 - 105	1.71	20	
Copper	119.487	2.0	125.000	8.04672	89.2	53 - 126	1.19	20	
Lead	113.647	1.0	125.000	6.91284	85.4	34 - 129	3.55	20	
Molybdenum	104.168	1.0	125.000	ND	83.3	57 - 105	1.62	20	
Nickel	108.277	1.0	125.000	6.72532	81.2	49 - 109	1.06	20	
Selenium	91.2408	1.0	125.000	ND	73.0	57 - 99	0.946	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S (continued)

Matrix Spike Dup (B6K0229-MSD1) - Continued

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Silver	103.562	1.0	125.000	ND	82.8	64 - 105	2.03	20	
Thallium	99.4544	1.0	125.000	ND	79.6	46 - 105	1.75	20	
Vanadium	136.534	1.0	125.000	32.9912	82.8	60 - 109	1.02	20	
Zinc	122.836	1.0	250.000	23.4546	39.8	29 - 122	3.67	20	



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Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0754 - EPA 245.1/7470_W

Blank (B6J0754-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury ND 0.20 NR

LCS (B6J0754-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 11.0803 0.20 10.0000 111 80 - 120

Duplicate (B6J0754-DUP1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury ND 0.20 ND NR 20

Matrix Spike (B6J0754-MS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 9.85804 0.20 10.0000 ND 98.6 70 - 130

Matrix Spike Dup (B6J0754-MSD1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 9.67796 0.20 10.0000 ND 96.8 70 - 130 1.84 20

Post Spike (B6J0754-PS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 5.08013 5.00000 0.012951 101 85 - 115



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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0224 - EPA 7471_S

Blank (B6K0224-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury ND 0.10 NR

LCS (B6K0224-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.862070 0.10 0.833333 103 80 - 120

Duplicate (B6K0224-DUP1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.033953 0.10 0.022283 NR 41.5 20 R, J

Matrix Spike (B6K0224-MS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.887587 0.10 0.833333 0.022283 104 70 - 130

Matrix Spike Dup (B6K0224-MSD1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.856328 0.10 0.833333 0.022283 100 70 - 130 3.58 20

Post Spike (B6K0224-PS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.007048 5.00000E-3 0.000267 136 85 - 115 M1



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0662 - GCVOA_W

Blank (B6J0662-BLK1)

Prepared: 10/25/2016 Analyzed: 10/25/2016

Gasoline Range Organics	ND	0.05			NR				
Surrogate: 4-Bromofluorobenzene	0.1061		0.100000		106	70 - 130			

LCS (B6J0662-BS1)

Prepared: 10/25/2016 Analyzed: 10/25/2016

Gasoline Range Organics	0.928000	0.05	1.00000		92.8	70 - 130			
Surrogate: 4-Bromofluorobenzene	0.1076		0.100000		108	70 - 130			

LCS Dup (B6J0662-BSD1)

Prepared: 10/25/2016 Analyzed: 10/25/2016

Gasoline Range Organics	0.950000	0.05	1.00000		95.0	70 - 130	2.34	20	
Surrogate: 4-Bromofluorobenzene	0.1115		0.100000		112	70 - 130			



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0743 - GCVOA_W

Blank (B6J0743-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Gasoline Range Organics	ND	0.05				NR			
Surrogate: 4-Bromofluorobenzene	0.1108		0.100000			111	70 - 130		

LCS (B6J0743-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Gasoline Range Organics	0.917000	0.05	1.00000			91.7	70 - 130		
Surrogate: 4-Bromofluorobenzene	0.1118		0.100000			112	70 - 130		

LCS Dup (B6J0743-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Gasoline Range Organics	0.923000	0.05	1.00000			92.3	70 - 130	0.652	20
Surrogate: 4-Bromofluorobenzene	0.1083		0.100000			108	70 - 130		



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Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0661 - GCVOA_S

Blank (B6J0661-BLK1)

Prepared: 10/25/2016 Analyzed: 10/25/2016

Gasoline Range Organics	ND	1.0			NR				
C4-C12	ND	1.0			NR				

Surrogate: 4-Bromofluorobenzene 0.1922 0.200000 96.1 36 - 125

LCS (B6J0661-BS1)

Prepared: 10/25/2016 Analyzed: 10/25/2016

Gasoline Range Organics	4.27100	1.0	5.00000		85.4	70 - 130			
Surrogate: 4-Bromofluorobenzene	0.1923		0.200000		96.2	36 - 125			

Matrix Spike (B6J0661-MS1)

Source: 1603747-03

Prepared: 10/25/2016 Analyzed: 10/25/2016

Gasoline Range Organics	3.05400	1.0	5.00000	ND	61.1	32 - 161			
Surrogate: 4-Bromofluorobenzene	0.1570		0.200000		78.5	36 - 125			

Matrix Spike Dup (B6J0661-MSD1)

Source: 1603747-03

Prepared: 10/25/2016 Analyzed: 10/25/2016

Gasoline Range Organics	3.57700	1.0	5.00000	ND	71.5	32 - 161	15.8	20	
Surrogate: 4-Bromofluorobenzene	0.1950		0.200000		97.5	36 - 125			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0774 - GCSEMI_DRO_W

Blank (B6J0774-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

C10-C22	ND	0.05			NR				
C23-C36	ND	0.05			NR				

Surrogate: <i>p</i> -Terphenyl	0.01842		8.00000E-2		23.0	20 - 150			
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LCS (B6J0774-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

DRO	0.747500	0.05	1.00000		74.8	42 - 142			
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Surrogate: <i>p</i> -Terphenyl	0.03372		8.00000E-2		42.2	20 - 150			
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LCS Dup (B6J0774-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

DRO	0.718070	0.05	1.00000		71.8	42 - 142	4.02	20	
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Surrogate: <i>p</i> -Terphenyl	0.03370		8.00000E-2		42.1	20 - 150			
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Reported : 11/08/2016

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K0069 - GCSEMI_DRO_LL_S									
Blank (B6K0069-BLK1)				Prepared: 11/1/2016 Analyzed: 11/2/2016					
C10-C22	ND	1.0			NR				
C23-C36	ND	1.0			NR				
<i>Surrogate: p-Terphenyl</i>	1.798		2.66667		67.4	18 - 130			
LCS (B6K0069-BS1)				Prepared: 11/1/2016 Analyzed: 11/1/2016					
DRO	17.1847	1.0	33.3333		51.6	34 - 120			
<i>Surrogate: p-Terphenyl</i>	1.557		2.66667		58.4	18 - 130			
Duplicate (B6K0069-DUP1)				Source: 1603730-10		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	3.44000	1.0		2.75867	NR		22.0	20	R
<i>Surrogate: p-Terphenyl</i>	1.309		2.66667		49.1	18 - 130			
Duplicate (B6K0069-DUP2)				Source: 1603733-34		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	1.82967	1.0		2.26633	NR		21.3	20	R
<i>Surrogate: p-Terphenyl</i>	1.685		2.66667		63.2	18 - 130			
Duplicate (B6K0069-DUP3)				Source: 1603732-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			
DRO	1.89067	1.0		1.73000	NR		8.87	20	
<i>Surrogate: p-Terphenyl</i>	2.040		2.66667		76.5	18 - 130			
Matrix Spike (B6K0069-MS1)				Source: 1603730-11		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	20.3963	1.0	33.3333	2.63567	53.3	12 - 132			
<i>Surrogate: p-Terphenyl</i>	1.657		2.66667		62.1	18 - 130			
Matrix Spike (B6K0069-MS2)				Source: 1603733-35		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	14.5147	1.0	33.3333	2.13433	37.1	12 - 132			
<i>Surrogate: p-Terphenyl</i>	1.285		2.66667		48.2	18 - 130			
Matrix Spike (B6K0069-MS3)				Source: 1603732-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			
DRO	22.5013	1.0	33.3333	1.73000	62.3	12 - 132			
<i>Surrogate: p-Terphenyl</i>	1.827		2.66667		68.5	18 - 130			
Matrix Spike Dup (B6K0069-MSD1)				Source: 1603730-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			
DRO	21.3440	1.0	33.3333	2.63567	56.1	12 - 132	4.54	20	
<i>Surrogate: p-Terphenyl</i>	1.712		2.66667		64.2	18 - 130			
Matrix Spike Dup (B6K0069-MSD2)				Source: 1603733-35		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	22.4903	1.0	33.3333	2.13433	61.1	12 - 132	43.1	20	R
<i>Surrogate: p-Terphenyl</i>	1.800		2.66667		67.5	18 - 130			
Matrix Spike Dup (B6K0069-MSD3)				Source: 1603732-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			



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Project Number : ROOSEVELT HS, 265642
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Reported : 11/08/2016

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0069 - GCSEMI_DRO_LL_S (continued)

Matrix Spike Dup (B6K0069-MSD3) - Continued Source: 1603732-11 Prepared: 11/2/2016 Analyzed: 11/2/2016

DRO	25.2887	1.0	33.3333	1.73000	70.7	12 - 132	11.7	20	
Surrogate: <i>p</i> -Terphenyl	2.010		2.66667		75.4	18 - 130			



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Project Number : ROOSEVELT HS, 265642

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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0756-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3321		0.500000		66.4	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3389		0.500000		67.8	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000		77.2	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4132		0.500000		82.6	14 - 122		

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.389980	0.05	0.500000		78.0	59 - 109		
4,4'-DDD [2C]	0.400360	0.05	0.500000		80.1	59 - 109		
4,4'-DDE	0.382070	0.05	0.500000		76.4	63 - 101		
4,4'-DDE [2C]	0.393755	0.05	0.500000		78.8	63 - 101		
4,4'-DDT	0.312965	0.05	0.500000		62.6	36 - 96		
4,4'-DDT [2C]	0.306415	0.05	0.500000		61.3	36 - 96		
Aldrin	0.395040	0.02	0.500000		79.0	64 - 96		
Aldrin [2C]	0.405005	0.02	0.500000		81.0	64 - 96		
alpha-BHC	0.393195	0.02	0.500000		78.6	63 - 92		
alpha-BHC [2C]	0.408610	0.02	0.500000		81.7	63 - 92		
alpha-Chlordane	0.381445	0.02	0.500000		76.3	63 - 101		
alpha-Chlordane [2C]	0.387965	0.02	0.500000		77.6	63 - 101		
beta-BHC	0.383430	0.02	0.500000		76.7	58 - 95		
beta-BHC [2C]	0.397770	0.02	0.500000		79.6	58 - 95		
delta-BHC	0.279005	0.02	0.500000		55.8	37 - 107		
delta-BHC [2C]	0.286245	0.02	0.500000		57.2	37 - 107		
Dieldrin	0.397825	0.05	0.500000		79.6	62 - 102		
Dieldrin [2C]	0.400380	0.05	0.500000		80.1	62 - 102		
Endosulfan I	0.380945	0.02	0.500000		76.2	61 - 97		
Endosulfan I [2C]	0.389895	0.02	0.500000		78.0	61 - 97		
Endosulfan II	0.380440	0.05	0.500000		76.1	61 - 103		
Endosulfan II [2C]	0.377870	0.05	0.500000		75.6	61 - 103		
Endosulfan sulfate	0.334510	0.05	0.500000		66.9	60 - 112		
Endosulfan Sulfate [2C]	0.338545	0.05	0.500000		67.7	60 - 112		
Endrin	0.442345	0.05	0.500000		88.5	62 - 103		
Endrin [2C]	0.452120	0.05	0.500000		90.4	62 - 103		
Endrin aldehyde	0.361285	0.05	0.500000		72.3	64 - 116		
Endrin aldehyde [2C]	0.372550	0.05	0.500000		74.5	64 - 116		
Endrin ketone	0.346515	0.05	0.500000		69.3	56 - 113		
Endrin ketone [2C]	0.349980	0.05	0.500000		70.0	56 - 113		
gamma-BHC	0.401575	0.02	0.500000		80.3	64 - 95		
gamma-BHC [2C]	0.413670	0.02	0.500000		82.7	64 - 95		



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Project Number : ROOSEVELT HS, 265642
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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0756-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

gamma-Chlordane	0.379495	0.02	0.500000		75.9	64 - 99		
gamma-Chlordane [2C]	0.386585	0.02	0.500000		77.3	64 - 99		
Heptachlor	0.401695	0.02	0.500000		80.3	64 - 93		
Heptachlor [2C]	0.406790	0.02	0.500000		81.4	64 - 93		
Heptachlor epoxide	0.389420	0.02	0.500000		77.9	65 - 98		
Heptachlor epoxide [2C]	0.396635	0.02	0.500000		79.3	65 - 98		
Methoxychlor	0.326050	0.25	0.500000		65.2	0 - 141		
Methoxychlor [2C]	0.329225	0.25	0.500000		65.8	0 - 141		
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3537</i>		<i>0.500000</i>		<i>70.7</i>	<i>7 - 127</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3480</i>		<i>0.500000</i>		<i>69.6</i>	<i>7 - 127</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.3958</i>		<i>0.500000</i>		<i>79.2</i>	<i>14 - 122</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4328</i>		<i>0.500000</i>		<i>86.6</i>	<i>14 - 122</i>		

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.382190	0.05	0.500000		76.4	59 - 109	2.02	20
4,4'-DDD [2C]	0.396440	0.05	0.500000		79.3	59 - 109	0.984	20
4,4'-DDE	0.374120	0.05	0.500000		74.8	63 - 101	2.10	20
4,4'-DDE [2C]	0.388570	0.05	0.500000		77.7	63 - 101	1.33	20
4,4'-DDT	0.301065	0.05	0.500000		60.2	36 - 96	3.88	20
4,4'-DDT [2C]	0.295700	0.05	0.500000		59.1	36 - 96	3.56	20
Aldrin	0.387615	0.02	0.500000		77.5	64 - 96	1.90	20
Aldrin [2C]	0.401730	0.02	0.500000		80.3	64 - 96	0.812	20
alpha-BHC	0.384635	0.02	0.500000		76.9	63 - 92	2.20	20
alpha-BHC [2C]	0.401870	0.02	0.500000		80.4	63 - 92	1.66	20
alpha-Chlordane	0.373095	0.02	0.500000		74.6	63 - 101	2.21	20
alpha-Chlordane [2C]	0.383550	0.02	0.500000		76.7	63 - 101	1.14	20
beta-BHC	0.374495	0.02	0.500000		74.9	58 - 95	2.36	20
beta-BHC [2C]	0.391100	0.02	0.500000		78.2	58 - 95	1.69	20
delta-BHC	0.273035	0.02	0.500000		54.6	37 - 107	2.16	20
delta-BHC [2C]	0.281320	0.02	0.500000		56.3	37 - 107	1.74	20
Dieldrin	0.389230	0.05	0.500000		77.8	62 - 102	2.18	20
Dieldrin [2C]	0.395445	0.05	0.500000		79.1	62 - 102	1.24	20
Endosulfan I	0.373770	0.02	0.500000		74.8	61 - 97	1.90	20
Endosulfan I [2C]	0.385820	0.02	0.500000		77.2	61 - 97	1.05	20
Endosulfan II	0.371020	0.05	0.500000		74.2	61 - 103	2.51	20
Endosulfan II [2C]	0.370560	0.05	0.500000		74.1	61 - 103	1.95	20
Endosulfan sulfate	0.323020	0.05	0.500000		64.6	60 - 112	3.49	20
Endosulfan Sulfate [2C]	0.319495	0.05	0.500000		63.9	60 - 112	5.79	20
Endrin	0.427475	0.05	0.500000		85.5	62 - 103	3.42	20
Endrin [2C]	0.441245	0.05	0.500000		88.2	62 - 103	2.43	20
Endrin aldehyde	0.352420	0.05	0.500000		70.5	64 - 116	2.48	20



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Endrin aldehyde [2C]	0.364575	0.05	0.500000		72.9	64 - 116	2.16	20	
Endrin ketone	0.334495	0.05	0.500000		66.9	56 - 113	3.53	20	
Endrin ketone [2C]	0.326635	0.05	0.500000		65.3	56 - 113	6.90	20	
gamma-BHC	0.392935	0.02	0.500000		78.6	64 - 95	2.17	20	
gamma-BHC [2C]	0.407880	0.02	0.500000		81.6	64 - 95	1.41	20	
gamma-Chlordane	0.371900	0.02	0.500000		74.4	64 - 99	2.02	20	
gamma-Chlordane [2C]	0.382560	0.02	0.500000		76.5	64 - 99	1.05	20	
Heptachlor	0.394790	0.02	0.500000		79.0	64 - 93	1.73	20	
Heptachlor [2C]	0.403430	0.02	0.500000		80.7	64 - 93	0.829	20	
Heptachlor epoxide	0.382100	0.02	0.500000		76.4	65 - 98	1.90	20	
Heptachlor epoxide [2C]	0.393685	0.02	0.500000		78.7	65 - 98	0.747	20	
Methoxychlor	0.311510	0.25	0.500000		62.3	0 - 141	4.56	20	
Methoxychlor [2C]	0.300570	0.25	0.500000		60.1	0 - 141	9.10	20	
Surrogate: Decachlorobiphenyl	0.3365		0.500000		67.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3304		0.500000		66.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.3868		0.500000		77.4	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4238		0.500000		84.8	14 - 122			



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0035 - GCSEMI_PCB/PEST_S

Blank (B6K0035-BLK1)

Prepared: 11/1/2016 Analyzed: 11/3/2016

4,4'-DDD	ND	2.0			NR
4,4'-DDD [2C]	ND	2.0			NR
4,4'-DDE	ND	2.0			NR
4,4'-DDE [2C]	ND	2.0			NR
4,4'-DDT	ND	2.0			NR
4,4'-DDT [2C]	ND	2.0			NR
Aldrin	ND	1.0			NR
Aldrin [2C]	ND	1.0			NR
alpha-BHC	ND	1.0			NR
alpha-BHC [2C]	ND	1.0			NR
alpha-Chlordane	ND	1.0			NR
alpha-Chlordane [2C]	ND	1.0			NR
beta-BHC	ND	1.0			NR
beta-BHC [2C]	ND	1.0			NR
Chlordane	ND	8.5			NR
Chlordane [2C]	ND	8.5			NR
delta-BHC	ND	1.0			NR
delta-BHC [2C]	ND	1.0			NR
Dieldrin	ND	2.0			NR
Dieldrin [2C]	ND	2.0			NR
Endosulfan I	ND	1.0			NR
Endosulfan I [2C]	ND	1.0			NR
Endosulfan II	ND	2.0			NR
Endosulfan II [2C]	ND	2.0			NR
Endosulfan sulfate	ND	2.0			NR
Endosulfan Sulfate [2C]	ND	2.0			NR
Endrin	ND	2.0			NR
Endrin [2C]	ND	2.0			NR
Endrin aldehyde	ND	2.0			NR
Endrin aldehyde [2C]	ND	2.0			NR
Endrin ketone	ND	2.0			NR
Endrin ketone [2C]	ND	2.0			NR
gamma-BHC	ND	1.0			NR
gamma-BHC [2C]	ND	1.0			NR
gamma-Chlordane	ND	1.0			NR
gamma-Chlordane [2C]	ND	1.0			NR
Heptachlor	ND	1.0			NR
Heptachlor [2C]	ND	1.0			NR
Heptachlor epoxide	ND	1.0			NR
Heptachlor epoxide [2C]	ND	1.0			NR
Methoxychlor	ND	5.0			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0035 - GCSEMI_PCB/PEST_S (continued)

Blank (B6K0035-BLK1) - Continued

Prepared: 11/1/2016 Analyzed: 11/3/2016

Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>10.42</i>		<i>16.6667</i>		<i>62.5</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>11.12</i>		<i>16.6667</i>		<i>66.7</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.55</i>		<i>16.6667</i>		<i>81.3</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>14.34</i>		<i>16.6667</i>		<i>86.1</i>	<i>26 - 108</i>		

LCS (B6K0035-BS1)

Prepared: 11/1/2016 Analyzed: 11/3/2016

4,4'-DDD	13.4665	2.0	16.6667		80.8	53 - 125		
4,4'-DDD [2C]	14.1395	2.0	16.6667		84.8	53 - 125		
4,4'-DDE	13.0137	2.0	16.6667		78.1	54 - 113		
4,4'-DDE [2C]	13.3800	2.0	16.6667		80.3	54 - 113		
4,4'-DDT	7.08250	2.0	16.6667		42.5	25 - 127		
4,4'-DDT [2C]	7.06867	2.0	16.6667		42.4	25 - 127		
Aldrin	13.2895	1.0	16.6667		79.7	59 - 107		
Aldrin [2C]	14.0918	1.0	16.6667		84.6	59 - 107		
alpha-BHC	13.3135	1.0	16.6667		79.9	59 - 104		
alpha-BHC [2C]	14.1553	1.0	16.6667		84.9	59 - 104		
alpha-Chlordane	12.5870	1.0	16.6667		75.5	54 - 110		
alpha-Chlordane [2C]	13.1557	1.0	16.6667		78.9	54 - 110		
beta-BHC	12.9593	1.0	16.6667		77.8	57 - 103		
beta-BHC [2C]	13.7805	1.0	16.6667		82.7	57 - 103		
delta-BHC	9.16383	1.0	16.6667		55.0	16 - 120		
delta-BHC [2C]	9.73050	1.0	16.6667		58.4	16 - 120		
Dieldrin	13.1120	2.0	16.6667		78.7	61 - 109		
Dieldrin [2C]	13.5312	2.0	16.6667		81.2	61 - 109		
Endosulfan I	12.7027	1.0	16.6667		76.2	60 - 106		
Endosulfan I [2C]	13.3307	1.0	16.6667		80.0	60 - 106		
Endosulfan II	12.5288	2.0	16.6667		75.2	59 - 108		
Endosulfan II [2C]	12.5552	2.0	16.6667		75.3	59 - 108		
Endosulfan sulfate	10.5903	2.0	16.6667		63.5	54 - 110		
Endosulfan Sulfate [2C]	10.9373	2.0	16.6667		65.6	54 - 110		
Endrin	14.2353	2.0	16.6667		85.4	63 - 112		
Endrin [2C]	14.9890	2.0	16.6667		89.9	63 - 112		
Endrin aldehyde	11.7728	2.0	16.6667		70.6	64 - 119		
Endrin aldehyde [2C]	12.3172	2.0	16.6667		73.9	64 - 119		
Endrin ketone	10.3507	2.0	16.6667		62.1	54 - 115		
Endrin ketone [2C]	10.5873	2.0	16.6667		63.5	54 - 115		
gamma-BHC	13.3553	1.0	16.6667		80.1	60 - 107		
gamma-BHC [2C]	14.0545	1.0	16.6667		84.3	60 - 107		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0035 - GCSEMI_PCB/PEST_S (continued)

LCS (B6K0035-BS1) - Continued

Prepared: 11/1/2016 Analyzed: 11/3/2016

gamma-Chlordane	12.5842	1.0	16.6667		75.5	57 - 106			
gamma-Chlordane [2C]	13.2060	1.0	16.6667		79.2	57 - 106			
Heptachlor	13.1537	1.0	16.6667		78.9	54 - 114			
Heptachlor [2C]	13.2727	1.0	16.6667		79.6	54 - 114			
Heptachlor epoxide	13.0308	1.0	16.6667		78.2	61 - 106			
Heptachlor epoxide [2C]	13.7203	1.0	16.6667		82.3	61 - 106			
Methoxychlor	8.07683	5.0	16.6667		48.5	18 - 138			
Methoxychlor [2C]	8.05883	5.0	16.6667		48.4	18 - 138			
<i>Surrogate: Decachlorobiphenyl</i>	<i>11.01</i>		<i>16.6667</i>		<i>66.1</i>	<i>27 - 123</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>11.60</i>		<i>16.6667</i>		<i>69.6</i>	<i>27 - 123</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.90</i>		<i>16.6667</i>		<i>83.4</i>	<i>26 - 108</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>15.31</i>		<i>16.6667</i>		<i>91.9</i>	<i>26 - 108</i>			

Duplicate (B6K0035-DUP1)

Source: 1603730-10

Prepared: 11/1/2016 Analyzed: 11/3/2016

4,4'-DDD	ND	2.0		ND	NR			20	
4,4'-DDD [2C]	ND	2.0		ND	NR			20	
4,4'-DDE	ND	2.0		ND	NR			20	
4,4'-DDE [2C]	ND	2.0		ND	NR			20	
4,4'-DDT	ND	2.0		ND	NR			20	
4,4'-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0035 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6K0035-DUP1) - Continued

Source: 1603730-10

Prepared: 11/1/2016 Analyzed: 11/3/2016

Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	8.795		16.6667		52.8	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	9.067		16.6667		54.4	27 - 123			
Surrogate: Tetrachloro-m-xylene	9.914		16.6667		59.5	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	11.25		16.6667		67.5	26 - 108			

Matrix Spike (B6K0035-MS1)

Source: 1603730-11

Prepared: 11/1/2016 Analyzed: 11/3/2016

4,4'-DDD	10.6437	2.0	16.6667	ND	63.9	25 - 141			
4,4'-DDD [2C]	11.9398	2.0	16.6667	ND	71.6	25 - 141			
4,4'-DDE	10.4130	2.0	16.6667	ND	62.5	22 - 141			
4,4'-DDE [2C]	11.5860	2.0	16.6667	ND	69.5	22 - 141			
4,4'-DDT	6.73117	2.0	16.6667	ND	40.4	15 - 136			
4,4'-DDT [2C]	8.14533	2.0	16.6667	ND	48.9	15 - 136			
Aldrin	10.5655	1.0	16.6667	ND	63.4	33 - 118			
Aldrin [2C]	12.0668	1.0	16.6667	ND	72.4	33 - 118			
alpha-BHC	10.5880	1.0	16.6667	ND	63.5	30 - 116			
alpha-BHC [2C]	12.1518	1.0	16.6667	ND	72.9	30 - 116			
alpha-Chlordane	10.1967	1.0	16.6667	ND	61.2	30 - 123			
alpha-Chlordane [2C]	11.6363	1.0	16.6667	ND	69.8	30 - 123			
beta-BHC	10.4882	1.0	16.6667	ND	62.9	24 - 121			
beta-BHC [2C]	13.3807	1.0	16.6667	ND	80.3	24 - 121			
delta-BHC	7.65500	1.0	16.6667	ND	45.9	7 - 120			
delta-BHC [2C]	8.67233	1.0	16.6667	ND	52.0	7 - 120			
Dieldrin	10.5970	2.0	16.6667	ND	63.6	25 - 136			
Dieldrin [2C]	11.8505	2.0	16.6667	ND	71.1	25 - 136			
Endosulfan I	10.1138	1.0	16.6667	ND	60.7	18 - 134			
Endosulfan I [2C]	11.5472	1.0	16.6667	ND	69.3	18 - 134			
Endosulfan II	10.1058	2.0	16.6667	ND	60.6	28 - 128			
Endosulfan II [2C]	10.2297	2.0	16.6667	ND	61.4	28 - 128			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0035 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6K0035-MS1) - Continued

Source: 1603730-11

Prepared: 11/1/2016 Analyzed: 11/3/2016

Endosulfan sulfate	8.67000	2.0	16.6667	ND	52.0	5 - 145			
Endosulfan Sulfate [2C]	9.83483	2.0	16.6667	ND	59.0	5 - 145			
Endrin	11.8790	2.0	16.6667	ND	71.3	26 - 142			
Endrin [2C]	13.3738	2.0	16.6667	ND	80.2	26 - 142			
Endrin aldehyde	9.24417	2.0	16.6667	ND	55.5	8 - 146			
Endrin aldehyde [2C]	8.08933	2.0	16.6667	ND	48.5	8 - 146			
Endrin ketone	8.76733	2.0	16.6667	ND	52.6	16 - 139			
Endrin ketone [2C]	10.2350	2.0	16.6667	ND	61.4	16 - 139			
gamma-BHC	11.1397	1.0	16.6667	ND	66.8	30 - 122			
gamma-BHC [2C]	12.2097	1.0	16.6667	ND	73.3	30 - 122			
gamma-Chlordane	10.1412	1.0	16.6667	ND	60.8	18 - 132			
gamma-Chlordane [2C]	11.8247	1.0	16.6667	ND	70.9	18 - 132			
Heptachlor	10.8578	1.0	16.6667	ND	65.1	34 - 122			
Heptachlor [2C]	12.1375	1.0	16.6667	ND	72.8	34 - 122			
Heptachlor epoxide	10.3522	1.0	16.6667	ND	62.1	21 - 135			
Heptachlor epoxide [2C]	12.0375	1.0	16.6667	ND	72.2	21 - 135			
Methoxychlor	8.17300	5.0	16.6667	ND	49.0	8 - 162			
Methoxychlor [2C]	9.07950	5.0	16.6667	ND	54.5	8 - 162			
Surrogate: Decachlorobiphenyl	9.262		16.6667		55.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	11.22		16.6667		67.3	27 - 123			
Surrogate: Tetrachloro-m-xylene	10.58		16.6667		63.5	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	12.68		16.6667		76.1	26 - 108			

Matrix Spike Dup (B6K0035-MSD1)

Source: 1603730-11

Prepared: 11/1/2016 Analyzed: 11/3/2016

4,4'-DDD	9.68117	2.0	16.6667	ND	58.1	25 - 141	9.47	20	
4,4'-DDD [2C]	10.6988	2.0	16.6667	ND	64.2	25 - 141	11.0	20	
4,4'-DDE	9.40983	2.0	16.6667	ND	56.5	22 - 141	10.1	20	
4,4'-DDE [2C]	10.2452	2.0	16.6667	ND	61.5	22 - 141	12.3	20	
4,4'-DDT	5.78300	2.0	16.6667	ND	34.7	15 - 136	15.2	20	
4,4'-DDT [2C]	7.00250	2.0	16.6667	ND	42.0	15 - 136	15.1	20	
Aldrin	9.54733	1.0	16.6667	ND	57.3	33 - 118	10.1	20	
Aldrin [2C]	10.6143	1.0	16.6667	ND	63.7	33 - 118	12.8	20	
alpha-BHC	9.61567	1.0	16.6667	ND	57.7	30 - 116	9.63	20	
alpha-BHC [2C]	10.8023	1.0	16.6667	ND	64.8	30 - 116	11.8	20	
alpha-Chlordane	9.21050	1.0	16.6667	ND	55.3	30 - 123	10.2	20	
alpha-Chlordane [2C]	10.3050	1.0	16.6667	ND	61.8	30 - 123	12.1	20	
beta-BHC	9.50183	1.0	16.6667	ND	57.0	24 - 121	9.87	20	
beta-BHC [2C]	11.9182	1.0	16.6667	ND	71.5	24 - 121	11.6	20	
delta-BHC	6.90400	1.0	16.6667	ND	41.4	7 - 120	10.3	20	
delta-BHC [2C]	7.60683	1.0	16.6667	ND	45.6	7 - 120	13.1	20	
Dieldrin	9.57350	2.0	16.6667	ND	57.4	25 - 136	10.1	20	



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Project Number : ROOSEVELT HS, 265642
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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0035 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6K0035-MSD1) - Continued

Source: 1603730-11

Prepared: 11/1/2016 Analyzed: 11/3/2016

Dieldrin [2C]	10.4917	2.0	16.6667	ND	63.0	25 - 136	12.2	20	
Endosulfan I	9.13250	1.0	16.6667	ND	54.8	18 - 134	10.2	20	
Endosulfan I [2C]	10.2248	1.0	16.6667	ND	61.3	18 - 134	12.1	20	
Endosulfan II	9.18083	2.0	16.6667	ND	55.1	28 - 128	9.59	20	
Endosulfan II [2C]	8.95600	2.0	16.6667	ND	53.7	28 - 128	13.3	20	
Endosulfan sulfate	7.91333	2.0	16.6667	ND	47.5	5 - 145	9.13	20	
Endosulfan Sulfate [2C]	8.78083	2.0	16.6667	ND	52.7	5 - 145	11.3	20	
Endrin	10.7330	2.0	16.6667	ND	64.4	26 - 142	10.1	20	
Endrin [2C]	12.1015	2.0	16.6667	ND	72.6	26 - 142	9.99	20	
Endrin aldehyde	8.43633	2.0	16.6667	ND	50.6	8 - 146	9.14	20	
Endrin aldehyde [2C]	7.10583	2.0	16.6667	ND	42.6	8 - 146	12.9	20	
Endrin ketone	7.98967	2.0	16.6667	ND	47.9	16 - 139	9.28	20	
Endrin ketone [2C]	8.84950	2.0	16.6667	ND	53.1	16 - 139	14.5	20	
gamma-BHC	10.0458	1.0	16.6667	ND	60.3	30 - 122	10.3	20	
gamma-BHC [2C]	10.8405	1.0	16.6667	ND	65.0	30 - 122	11.9	20	
gamma-Chlordane	9.13617	1.0	16.6667	ND	54.8	18 - 132	10.4	20	
gamma-Chlordane [2C]	10.4122	1.0	16.6667	ND	62.5	18 - 132	12.7	20	
Heptachlor	9.76383	1.0	16.6667	ND	58.6	34 - 122	10.6	20	
Heptachlor [2C]	10.6765	1.0	16.6667	ND	64.1	34 - 122	12.8	20	
Heptachlor epoxide	9.49917	1.0	16.6667	ND	57.0	21 - 135	8.59	20	
Heptachlor epoxide [2C]	10.6290	1.0	16.6667	ND	63.8	21 - 135	12.4	20	
Methoxychlor	7.35600	5.0	16.6667	ND	44.1	8 - 162	10.5	20	
Methoxychlor [2C]	7.98600	5.0	16.6667	ND	47.9	8 - 162	12.8	20	
Surrogate: Decachlorobiphenyl	8.345		16.6667		50.1	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	10.00		16.6667		60.0	27 - 123			
Surrogate: Tetrachloro-m-xylene	9.386		16.6667		56.3	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	11.22		16.6667		67.3	26 - 108			



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Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.3321		0.500000	66.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000	77.2	14 - 122

Blank (B6J0756-BLK2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.4919		0.500000	98.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4931		0.500000	98.6	14 - 122

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96			
Aroclor 1260	ND	0.50			NR	64 - 106			

Surrogate: Decachlorobiphenyl	0.3537		0.500000	70.7	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3958		0.500000	79.2	14 - 122

LCS (B6J0756-BS2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	4.15151	0.50	5.00000	83.0	68 - 96				
Aroclor 1260	4.42908	0.50	5.00000	88.6	64 - 106				

Surrogate: Decachlorobiphenyl	0.4784		0.500000	95.7	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4737		0.500000	94.7	14 - 122

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96		20	
Aroclor 1260	ND	0.50			NR	64 - 106		20	

Surrogate: Decachlorobiphenyl	0.3365		0.500000	67.3	7 - 127
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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Surrogate: Tetrachloro-m-xylene 0.3868 0.500000 77.4 14 - 122

LCS Dup (B6J0756-BSD2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016 4.39845 0.50 5.00000 88.0 68 - 96 5.78 20

Aroclor 1260 4.68570 0.50 5.00000 93.7 64 - 106 5.63 20

Surrogate: Decachlorobiphenyl 0.4810 0.500000 96.2 7 - 127

Surrogate: Tetrachloro-m-xylene 0.4868 0.500000 97.4 14 - 122



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0035 - GCSEMI_PCB/PEST_S

Blank (B6K0035-BLK2)

Prepared: 11/1/2016 Analyzed: 11/1/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

Surrogate: Decachlorobiphenyl	16.60		16.6667	99.6	26 - 137				
Surrogate: Tetrachloro-m-xylene	17.00		16.6667	102	28 - 102				

LCS (B6K0035-BS2)

Prepared: 11/1/2016 Analyzed: 11/1/2016

Aroclor 1016	161.782	16	166.667	97.1	70 - 107				
Aroclor 1260	174.234	16	166.667	105	69 - 120				
Surrogate: Decachlorobiphenyl	18.15		16.6667	109	26 - 137				
Surrogate: Tetrachloro-m-xylene	18.26		16.6667	110	28 - 102				S12

Duplicate (B6K0035-DUP2)

Source: 1603730-11

Prepared: 11/1/2016 Analyzed: 11/1/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	14.32		16.6667	85.9	26 - 137				
Surrogate: Tetrachloro-m-xylene	13.23		16.6667	79.4	28 - 102				

Matrix Spike (B6K0035-MS2)

Source: 1603730-10

Prepared: 11/1/2016 Analyzed: 11/1/2016

Aroclor 1016	144.005	16	166.667	ND	86.4	34 - 120			
Aroclor 1260	155.300	16	166.667	ND	93.2	39 - 128			
Surrogate: Decachlorobiphenyl	16.31		16.6667	97.9	26 - 137				
Surrogate: Tetrachloro-m-xylene	16.10		16.6667	96.6	28 - 102				

Matrix Spike Dup (B6K0035-MSD2)

Source: 1603730-10

Prepared: 11/1/2016 Analyzed: 11/1/2016

Aroclor 1016	141.110	16	166.667	ND	84.7	34 - 120	2.03	20	
Aroclor 1260	152.832	16	166.667	ND	91.7	39 - 128	1.60	20	
Surrogate: Decachlorobiphenyl	15.91		16.6667	95.5	26 - 137				
Surrogate: Tetrachloro-m-xylene	15.83		16.6667	95.0	28 - 102				



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Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W

Blank (B6J0753-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,1,1,2-Tetrachloroethane	ND	0.50			NR
1,1,1-Trichloroethane	ND	0.50			NR
1,1,2,2-Tetrachloroethane	ND	0.50			NR
1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromochloromethane	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon disulfide	ND	1.0			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Di-isopropyl ether	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

Blank (B6J0753-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Dichlorodifluoromethane	ND	0.50				NR			
Ethyl Acetate	ND	10				NR			
Ethyl Ether	ND	10				NR			
Ethyl tert-butyl ether	ND	0.50				NR			
Ethylbenzene	ND	0.50				NR			
Freon-113	ND	0.50				NR			
Hexachlorobutadiene	ND	0.50				NR			
Isopropylbenzene	ND	0.50				NR			
m,p-Xylene	ND	1.0				NR			
Methylene chloride	ND	1.0				NR			
MTBE	ND	0.50				NR			
n-Butylbenzene	ND	0.50				NR			
n-Propylbenzene	ND	0.50				NR			
Naphthalene	ND	0.50				NR			
o-Xylene	ND	0.50				NR			
sec-Butylbenzene	ND	0.50				NR			
Styrene	ND	0.50				NR			
tert-Amyl methyl ether	ND	0.50				NR			
tert-Butanol	ND	10				NR			
tert-Butylbenzene	ND	0.50				NR			
Tetrachloroethene	ND	0.50				NR			
Toluene	ND	0.50				NR			
trans-1,2-Dichloroethene	ND	0.50				NR			
trans-1,3-Dichloropropene	ND	0.50				NR			
Trichloroethene	ND	0.50				NR			
Trichlorofluoromethane	ND	0.50				NR			
Vinyl acetate	ND	10				NR			
Vinyl chloride	ND	0.50				NR			

Surrogate: 1,2-Dichloroethane-d4	24.52		25.0000		98.1	51 - 157
Surrogate: 4-Bromofluorobenzene	27.18		25.0000		109	61 - 123
Surrogate: Dibromofluoromethane	24.16		25.0000		96.6	57 - 147
Surrogate: Toluene-d8	26.20		25.0000		105	61 - 119

LCS (B6J0753-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,1,1,2-Tetrachloroethane	9.31000	0.50	10.0000		93.1	76 - 132
1,1,1-Trichloroethane	8.34000	0.50	10.0000		83.4	72 - 144
1,1,2,2-Tetrachloroethane	8.57000	0.50	10.0000		85.7	70 - 120
1,1,2-Trichloroethane	8.91000	0.50	10.0000		89.1	75 - 120
1,1-Dichloroethane	8.71000	0.50	10.0000		87.1	65 - 127
1,1-Dichloroethene	9.23000	0.50	10.0000		92.3	63 - 142
1,1-Dichloropropene	10.4500	0.50	10.0000		104	78 - 137



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Project Number : ROOSEVELT HS, 265642
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Reported : 11/08/2016

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS (B6J0753-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,2,3-Trichloropropane	8.47000	0.50	10.0000		84.7	73 - 118			
1,2,3-Trichlorobenzene	9.60000	0.50	10.0000		96.0	53 - 164			
1,2,4-Trichlorobenzene	9.62000	0.50	10.0000		96.2	58 - 144			
1,2,4-Trimethylbenzene	11.2100	0.50	10.0000		112	75 - 140			
1,2-Dibromo-3-chloropropane	8.07000	0.50	10.0000		80.7	61 - 131			
1,2-Dibromoethane	8.76000	0.50	10.0000		87.6	74 - 125			
1,2-Dichlorobenzene	9.99000	0.50	10.0000		99.9	78 - 122			
1,2-Dichloroethane	8.28000	0.50	10.0000		82.8	70 - 126			
1,2-Dichloropropane	9.36000	0.50	10.0000		93.6	69 - 120			
1,3,5-Trimethylbenzene	11.2100	0.50	10.0000		112	73 - 145			
1,3-Dichlorobenzene	10.2300	0.50	10.0000		102	76 - 126			
1,3-Dichloropropane	8.88000	0.50	10.0000		88.8	76 - 117			
1,4-Dichlorobenzene	9.87000	0.50	10.0000		98.7	77 - 120			
2,2-Dichloropropane	8.55000	0.50	10.0000		85.5	47 - 169			
2-Chlorotoluene	10.7200	0.50	10.0000		107	75 - 135			
4-Chlorotoluene	10.7000	0.50	10.0000		107	70 - 133			
4-Isopropyltoluene	11.3200	0.50	10.0000		113	72 - 153			
Benzene	20.5400	0.50	20.0000		103	73 - 123			
Bromobenzene	9.89000	0.50	10.0000		98.9	75 - 121			
Bromochloromethane	8.65000	0.50	10.0000		86.5	65 - 129			
Bromodichloromethane	8.42000	0.50	10.0000		84.2	73 - 124			
Bromoform	8.18000	0.50	10.0000		81.8	70 - 135			
Bromomethane	10.0000	0.50	10.0000		100	10 - 166			
Carbon disulfide	9.75000	1.0	10.0000		97.5	61 - 144			
Carbon tetrachloride	8.42000	0.50	10.0000		84.2	65 - 171			
Chlorobenzene	10.1900	0.50	10.0000		102	80 - 121			
Chloroethane	8.25000	0.50	10.0000		82.5	55 - 143			
Chloroform	8.30000	0.50	10.0000		83.0	65 - 130			
Chloromethane	8.27000	0.50	10.0000		82.7	21 - 141			
cis-1,2-Dichloroethene	8.48000	0.50	10.0000		84.8	64 - 126			
cis-1,3-Dichloropropene	8.79000	0.50	10.0000		87.9	70 - 131			
Di-isopropyl ether	8.22000	0.50	10.0000		82.2	59 - 125			
Dibromochloromethane	8.59000	0.50	10.0000		85.9	74 - 125			
Dibromomethane	8.91000	0.50	10.0000		89.1	74 - 116			
Dichlorodifluoromethane	8.87000	0.50	10.0000		88.7	40 - 186			
Ethyl Acetate	71.1600	10	100.000		71.2	53 - 137			
Ethyl Ether	77.3100	10	100.000		77.3	62 - 134			
Ethyl tert-butyl ether	7.89000	0.50	10.0000		78.9	52 - 130			
Ethylbenzene	21.4300	0.50	20.0000		107	77 - 130			
Freon-113	9.03000	0.50	10.0000		90.3	68 - 167			
Hexachlorobutadiene	10.3400	0.50	10.0000		103	52 - 176			
Isopropylbenzene	11.4500	0.50	10.0000		114	77 - 144			



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS (B6J0753-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

m,p-Xylene	22.1700	1.0	20.0000		111	84 - 136		
Methylene chloride	8.55000	1.0	10.0000		85.5	72 - 150		
MTBE	7.87000	0.50	10.0000		78.7	64 - 122		
n-Butylbenzene	11.1300	0.50	10.0000		111	73 - 154		
n-Propylbenzene	11.7200	0.50	10.0000		117	77 - 145		
Naphthalene	8.48000	0.50	10.0000		84.8	55 - 137		
o-Xylene	21.7000	0.50	20.0000		108	79 - 135		
sec-Butylbenzene	11.5700	0.50	10.0000		116	73 - 157		
Styrene	10.7600	0.50	10.0000		108	78 - 125		
tert-Amyl methyl ether	8.79000	0.50	10.0000		87.9	53 - 127		
tert-Butanol	34.5400	10	50.0000		69.1	29 - 163		
tert-Butylbenzene	11.1800	0.50	10.0000		112	78 - 149		
Tetrachloroethene	10.4700	0.50	10.0000		105	74 - 136		
Toluene	20.9900	0.50	20.0000		105	78 - 124		
trans-1,2-Dichloroethene	8.81000	0.50	10.0000		88.1	66 - 131		
trans-1,3-Dichloropropene	8.62000	0.50	10.0000		86.2	63 - 134		
Trichloroethene	9.94000	0.50	10.0000		99.4	78 - 128		
Trichlorofluoromethane	9.24000	0.50	10.0000		92.4	60 - 170		
Vinyl acetate	75.8400	10	100.000		75.8	61 - 144		
Vinyl chloride	8.71000	0.50	10.0000		87.1	55 - 148		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>21.29</i>		<i>25.0000</i>		<i>85.2</i>	<i>51 - 157</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>27.36</i>		<i>25.0000</i>		<i>109</i>	<i>61 - 123</i>		
<i>Surrogate: Dibromofluoromethane</i>	<i>20.94</i>		<i>25.0000</i>		<i>83.8</i>	<i>57 - 147</i>		
<i>Surrogate: Toluene-d8</i>	<i>25.81</i>		<i>25.0000</i>		<i>103</i>	<i>61 - 119</i>		

LCS Dup (B6J0753-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,1,1,2-Tetrachloroethane	9.51000	0.50	10.0000		95.1	76 - 132	2.13	20
1,1,1-Trichloroethane	8.65000	0.50	10.0000		86.5	72 - 144	3.65	20
1,1,2,2-Tetrachloroethane	8.94000	0.50	10.0000		89.4	70 - 120	4.23	20
1,1,2-Trichloroethane	9.06000	0.50	10.0000		90.6	75 - 120	1.67	20
1,1-Dichloroethane	8.98000	0.50	10.0000		89.8	65 - 127	3.05	20
1,1-Dichloroethene	9.34000	0.50	10.0000		93.4	63 - 142	1.18	20
1,1-Dichloropropene	10.5100	0.50	10.0000		105	78 - 137	0.573	20
1,2,3-Trichloropropane	8.83000	0.50	10.0000		88.3	73 - 118	4.16	20
1,2,3-Trichlorobenzene	9.75000	0.50	10.0000		97.5	53 - 164	1.55	20
1,2,4-Trichlorobenzene	9.74000	0.50	10.0000		97.4	58 - 144	1.24	20
1,2,4-Trimethylbenzene	11.1000	0.50	10.0000		111	75 - 140	0.986	20
1,2-Dibromo-3-chloropropane	8.28000	0.50	10.0000		82.8	61 - 131	2.57	20
1,2-Dibromoethane	9.10000	0.50	10.0000		91.0	74 - 125	3.81	20
1,2-Dichlorobenzene	10.0300	0.50	10.0000		100	78 - 122	0.400	20
1,2-Dichloroethane	8.84000	0.50	10.0000		88.4	70 - 126	6.54	20



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS Dup (B6J0753-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,2-Dichloropropane	9.54000	0.50	10.0000		95.4	69 - 120	1.90	20	
1,3,5-Trimethylbenzene	11.1700	0.50	10.0000		112	73 - 145	0.357	20	
1,3-Dichlorobenzene	10.3400	0.50	10.0000		103	76 - 126	1.07	20	
1,3-Dichloropropane	9.24000	0.50	10.0000		92.4	76 - 117	3.97	20	
1,4-Dichlorobenzene	10.1400	0.50	10.0000		101	77 - 120	2.70	20	
2,2-Dichloropropane	8.63000	0.50	10.0000		86.3	47 - 169	0.931	20	
2-Chlorotoluene	10.6500	0.50	10.0000		106	75 - 135	0.655	20	
4-Chlorotoluene	10.7500	0.50	10.0000		108	70 - 133	0.466	20	
4-Isopropyltoluene	11.3300	0.50	10.0000		113	72 - 153	0.0883	20	
Benzene	20.8800	0.50	20.0000		104	73 - 123	1.64	20	
Bromobenzene	10.1000	0.50	10.0000		101	75 - 121	2.10	20	
Bromochloromethane	8.52000	0.50	10.0000		85.2	65 - 129	1.51	20	
Bromodichloromethane	8.63000	0.50	10.0000		86.3	73 - 124	2.46	20	
Bromoform	8.39000	0.50	10.0000		83.9	70 - 135	2.53	20	
Bromomethane	11.1900	0.50	10.0000		112	10 - 166	11.2	20	
Carbon disulfide	10.0800	1.0	10.0000		101	61 - 144	3.33	20	
Carbon tetrachloride	8.63000	0.50	10.0000		86.3	65 - 171	2.46	20	
Chlorobenzene	10.2600	0.50	10.0000		103	80 - 121	0.685	20	
Chloroethane	8.10000	0.50	10.0000		81.0	55 - 143	1.83	20	
Chloroform	8.45000	0.50	10.0000		84.5	65 - 130	1.79	20	
Chloromethane	8.23000	0.50	10.0000		82.3	21 - 141	0.485	20	
cis-1,2-Dichloroethene	8.71000	0.50	10.0000		87.1	64 - 126	2.68	20	
cis-1,3-Dichloropropene	9.31000	0.50	10.0000		93.1	70 - 131	5.75	20	
Di-isopropyl ether	8.36000	0.50	10.0000		83.6	59 - 125	1.69	20	
Dibromochloromethane	8.74000	0.50	10.0000		87.4	74 - 125	1.73	20	
Dibromomethane	9.22000	0.50	10.0000		92.2	74 - 116	3.42	20	
Dichlorodifluoromethane	8.91000	0.50	10.0000		89.1	40 - 186	0.450	20	
Ethyl Acetate	76.5000	10	100.000		76.5	53 - 137	7.23	20	
Ethyl Ether	80.3600	10	100.000		80.4	62 - 134	3.87	20	
Ethyl tert-butyl ether	8.14000	0.50	10.0000		81.4	52 - 130	3.12	20	
Ethylbenzene	21.5100	0.50	20.0000		108	77 - 130	0.373	20	
Freon-113	9.43000	0.50	10.0000		94.3	68 - 167	4.33	20	
Hexachlorobutadiene	10.4700	0.50	10.0000		105	52 - 176	1.25	20	
Isopropylbenzene	11.5600	0.50	10.0000		116	77 - 144	0.956	20	
m,p-Xylene	22.1700	1.0	20.0000		111	84 - 136	0.00	20	
Methylene chloride	8.68000	1.0	10.0000		86.8	72 - 150	1.51	20	
MTBE	8.32000	0.50	10.0000		83.2	64 - 122	5.56	20	
n-Butylbenzene	11.1300	0.50	10.0000		111	73 - 154	0.00	20	
n-Propylbenzene	11.6700	0.50	10.0000		117	77 - 145	0.428	20	
Naphthalene	8.70000	0.50	10.0000		87.0	55 - 137	2.56	20	
o-Xylene	21.7400	0.50	20.0000		109	79 - 135	0.184	20	
sec-Butylbenzene	11.5600	0.50	10.0000		116	73 - 157	0.0865	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS Dup (B6J0753-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Styrene	10.6600	0.50	10.0000		107	78 - 125	0.934	20	
tert-Amyl methyl ether	9.19000	0.50	10.0000		91.9	53 - 127	4.45	20	
tert-Butanol	39.0600	10	50.0000		78.1	29 - 163	12.3	20	
tert-Butylbenzene	11.1100	0.50	10.0000		111	78 - 149	0.628	20	
Tetrachloroethene	10.7000	0.50	10.0000		107	74 - 136	2.17	20	
Toluene	21.4500	0.50	20.0000		107	78 - 124	2.17	20	
trans-1,2-Dichloroethene	8.93000	0.50	10.0000		89.3	66 - 131	1.35	20	
trans-1,3-Dichloropropene	8.91000	0.50	10.0000		89.1	63 - 134	3.31	20	
Trichloroethene	10.1100	0.50	10.0000		101	78 - 128	1.70	20	
Trichlorofluoromethane	9.33000	0.50	10.0000		93.3	60 - 170	0.969	20	
Vinyl acetate	76.2100	10	100.000		76.2	61 - 144	0.487	20	
Vinyl chloride	8.74000	0.50	10.0000		87.4	55 - 148	0.344	20	
Surrogate: 1,2-Dichloroethane-d4	22.03		25.0000		88.1	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.28		25.0000		109	61 - 123			
Surrogate: Dibromofluoromethane	21.25		25.0000		85.0	57 - 147			
Surrogate: Toluene-d8	26.28		25.0000		105	61 - 119			



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9685 Research Drive

Irvine, CA 92618

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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S

Blank (B6J0781-BLK1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	ND	5.0			NR
1,1,1-Trichloroethane	ND	5.0			NR
1,1,2,2-Tetrachloroethane	ND	5.0			NR
1,1,2-Trichloroethane	ND	5.0			NR
1,1-Dichloroethane	ND	5.0			NR
1,1-Dichloroethene	ND	5.0			NR
1,1-Dichloropropene	ND	5.0			NR
1,2,3-Trichloropropane	ND	5.0			NR
1,2,3-Trichlorobenzene	ND	5.0			NR
1,2,4-Trichlorobenzene	ND	5.0			NR
1,2,4-Trimethylbenzene	ND	5.0			NR
1,2-Dibromo-3-chloropropane	ND	10			NR
1,2-Dibromoethane	ND	5.0			NR
1,2-Dichlorobenzene	ND	5.0			NR
1,2-Dichloroethane	ND	5.0			NR
1,2-Dichloropropane	ND	5.0			NR
1,3,5-Trimethylbenzene	ND	5.0			NR
1,3-Dichlorobenzene	ND	5.0			NR
1,3-Dichloropropane	ND	5.0			NR
1,4-Dichlorobenzene	ND	5.0			NR
2,2-Dichloropropane	ND	5.0			NR
2-Chlorotoluene	ND	5.0			NR
4-Chlorotoluene	ND	5.0			NR
4-Isopropyltoluene	ND	5.0			NR
Benzene	ND	5.0			NR
Bromobenzene	ND	5.0			NR
Bromochloromethane	ND	5.0			NR
Bromodichloromethane	ND	5.0			NR
Bromoform	ND	5.0			NR
Bromomethane	ND	5.0			NR
Carbon disulfide	ND	5.0			NR
Carbon tetrachloride	ND	5.0			NR
Chlorobenzene	ND	5.0			NR
Chloroethane	ND	5.0			NR
Chloroform	ND	5.0			NR
Chloromethane	ND	5.0			NR
cis-1,2-Dichloroethene	ND	5.0			NR
cis-1,3-Dichloropropene	ND	5.0			NR
Di-isopropyl ether	ND	5.0			NR
Dibromochloromethane	ND	5.0			NR
Dibromomethane	ND	5.0			NR



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Blank (B6J0781-BLK1) - Continued

Prepared: 10/28/2016 Analyzed: 10/28/2016

Dichlorodifluoromethane	ND	5.0				NR			
Ethyl Acetate	ND	50				NR			
Ethyl Ether	ND	50				NR			
Ethyl tert-butyl ether	ND	5.0				NR			
Ethylbenzene	ND	5.0				NR			
Freon-113	ND	5.0				NR			
Hexachlorobutadiene	ND	5.0				NR			
Isopropylbenzene	ND	5.0				NR			
m,p-Xylene	ND	10				NR			
Methylene chloride	ND	5.0				NR			
MTBE	ND	5.0				NR			
n-Butylbenzene	ND	5.0				NR			
n-Propylbenzene	ND	5.0				NR			
Naphthalene	ND	5.0				NR			
o-Xylene	ND	5.0				NR			
sec-Butylbenzene	ND	5.0				NR			
Styrene	ND	5.0				NR			
tert-Amyl methyl ether	ND	5.0				NR			
tert-Butanol	ND	100				NR			
tert-Butylbenzene	ND	5.0				NR			
Tetrachloroethene	ND	5.0				NR			
Toluene	ND	5.0				NR			
trans-1,2-Dichloroethene	ND	5.0				NR			
trans-1,3-Dichloropropene	ND	5.0				NR			
Trichloroethene	ND	5.0				NR			
Trichlorofluoromethane	ND	5.0				NR			
Vinyl acetate	ND	50				NR			
Vinyl chloride	ND	5.0				NR			

Surrogate: 1,2-Dichloroethane-d4	53.08		50.0000		106	12 - 186			
Surrogate: 4-Bromofluorobenzene	50.98		50.0000		102	23 - 162			
Surrogate: Dibromofluoromethane	50.61		50.0000		101	23 - 179			
Surrogate: Toluene-d8	51.67		50.0000		103	26 - 164			

LCS (B6J0781-BS1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	42.5900	5.0	50.0000		85.2	78 - 119			
1,1,1-Trichloroethane	49.8900	5.0	50.0000		99.8	75 - 123			
1,1,2,2-Tetrachloroethane	35.9700	5.0	50.0000		71.9	65 - 117			
1,1,2-Trichloroethane	42.3100	5.0	50.0000		84.6	79 - 108			
1,1-Dichloroethane	50.5200	5.0	50.0000		101	69 - 120			
1,1-Dichloroethene	58.3000	5.0	50.0000		117	59 - 126			
1,1-Dichloropropene	48.3700	5.0	50.0000		96.7	76 - 121			



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

LCS (B6J0781-BS1) - Continued

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,2,3-Trichloropropane	36.7100	5.0	50.0000		73.4	66 - 118			
1,2,3-Trichlorobenzene	42.7700	5.0	50.0000		85.5	75 - 116			
1,2,4-Trichlorobenzene	45.3800	5.0	50.0000		90.8	79 - 121			
1,2,4-Trimethylbenzene	42.9000	5.0	50.0000		85.8	80 - 118			
1,2-Dibromo-3-chloropropane	41.1000	10	50.0000		82.2	65 - 122			
1,2-Dibromoethane	43.5200	5.0	50.0000		87.0	77 - 115			
1,2-Dichlorobenzene	43.1100	5.0	50.0000		86.2	81 - 115			
1,2-Dichloroethane	41.7300	5.0	50.0000		83.5	70 - 122			
1,2-Dichloropropane	43.3600	5.0	50.0000		86.7	77 - 110			
1,3,5-Trimethylbenzene	43.0200	5.0	50.0000		86.0	79 - 119			
1,3-Dichlorobenzene	42.8600	5.0	50.0000		85.7	81 - 116			
1,3-Dichloropropane	41.3200	5.0	50.0000		82.6	79 - 113			
1,4-Dichlorobenzene	42.8200	5.0	50.0000		85.6	80 - 117			
2,2-Dichloropropane	53.6200	5.0	50.0000		107	70 - 129			
2-Chlorotoluene	42.8100	5.0	50.0000		85.6	76 - 119			
4-Chlorotoluene	42.8900	5.0	50.0000		85.8	79 - 119			
4-Isopropyltoluene	44.6200	5.0	50.0000		89.2	80 - 122			
Benzene	90.9700	5.0	100.000		91.0	79 - 111			
Bromobenzene	40.8800	5.0	50.0000		81.8	77 - 114			
Bromochloromethane	46.0000	5.0	50.0000		92.0	69 - 117			
Bromodichloromethane	43.1100	5.0	50.0000		86.2	79 - 114			
Bromoform	39.7600	5.0	50.0000		79.5	72 - 122			
Bromomethane	67.7300	5.0	50.0000		135	47 - 176			
Carbon disulfide	61.0200	5.0	50.0000		122	50 - 133			
Carbon tetrachloride	51.0600	5.0	50.0000		102	68 - 143			
Chlorobenzene	43.6800	5.0	50.0000		87.4	81 - 113			
Chloroethane	61.8900	5.0	50.0000		124	47 - 148			
Chloroform	47.7000	5.0	50.0000		95.4	77 - 116			
Chloromethane	65.0100	5.0	50.0000		130	39 - 141			
cis-1,2-Dichloroethene	48.4200	5.0	50.0000		96.8	68 - 120			
cis-1,3-Dichloropropene	46.9800	5.0	50.0000		94.0	74 - 113			
Di-isopropyl ether	46.6100	5.0	50.0000		93.2	62 - 124			
Dibromochloromethane	40.2700	5.0	50.0000		80.5	78 - 114			
Dibromomethane	42.9400	5.0	50.0000		85.9	74 - 112			
Dichlorodifluoromethane	67.5600	5.0	50.0000		135	49 - 138			
Ethyl Acetate	441.480	50	500.000		88.3	63 - 131			
Ethyl Ether	401.000	50	500.000		80.2	56 - 123			
Ethyl tert-butyl ether	48.3000	5.0	50.0000		96.6	68 - 121			
Ethylbenzene	85.9800	5.0	100.000		86.0	82 - 112			
Freon-113	61.8700	5.0	50.0000		124	65 - 133			
Hexachlorobutadiene	46.9400	5.0	50.0000		93.9	76 - 131			
Isopropylbenzene	44.8900	5.0	50.0000		89.8	77 - 122			



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

LCS (B6J0781-BS1) - Continued

Prepared: 10/28/2016 Analyzed: 10/28/2016

m,p-Xylene	84.6200	10	100.000		84.6	80 - 116		
Methylene chloride	43.2900	5.0	50.0000		86.6	67 - 144		
MTBE	46.2900	5.0	50.0000		92.6	62 - 120		
n-Butylbenzene	44.9300	5.0	50.0000		89.9	78 - 134		
n-Propylbenzene	43.3800	5.0	50.0000		86.8	77 - 125		
Naphthalene	42.0700	5.0	50.0000		84.1	66 - 125		
o-Xylene	89.7500	5.0	100.000		89.8	80 - 113		
sec-Butylbenzene	44.2000	5.0	50.0000		88.4	79 - 124		
Styrene	45.5200	5.0	50.0000		91.0	82 - 117		
tert-Amyl methyl ether	46.8300	5.0	50.0000		93.7	62 - 118		
tert-Butanol	194.800	100	250.000		77.9	35 - 127		
tert-Butylbenzene	43.9000	5.0	50.0000		87.8	78 - 121		
Tetrachloroethene	44.6800	5.0	50.0000		89.4	75 - 124		
Toluene	89.1000	5.0	100.000		89.1	79 - 115		
trans-1,2-Dichloroethene	48.5000	5.0	50.0000		97.0	65 - 127		
trans-1,3-Dichloropropene	44.5700	5.0	50.0000		89.1	73 - 115		
Trichloroethene	45.4600	5.0	50.0000		90.9	77 - 119		
Trichlorofluoromethane	53.3600	5.0	50.0000		107	57 - 134		
Vinyl acetate	478.390	50	500.000		95.7	62 - 147		
Vinyl chloride	59.7700	5.0	50.0000		120	53 - 133		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>53.76</i>		<i>50.0000</i>		<i>108</i>	<i>12 - 186</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.71</i>		<i>50.0000</i>		<i>101</i>	<i>23 - 162</i>		
<i>Surrogate: Dibromofluoromethane</i>	<i>53.38</i>		<i>50.0000</i>		<i>107</i>	<i>23 - 179</i>		
<i>Surrogate: Toluene-d8</i>	<i>52.71</i>		<i>50.0000</i>		<i>105</i>	<i>26 - 164</i>		

Matrix Spike (B6J0781-MS1)

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	35.2300	5.0	50.0000	ND	70.5	45 - 124		
1,1,1-Trichloroethane	42.7900	5.0	50.0000	ND	85.6	53 - 125		
1,1,2,2-Tetrachloroethane	33.3400	5.0	50.0000	ND	66.7	42 - 117		
1,1,2-Trichloroethane	37.6300	5.0	50.0000	ND	75.3	48 - 120		
1,1-Dichloroethane	42.6600	5.0	50.0000	ND	85.3	54 - 116		
1,1-Dichloroethene	48.6600	5.0	50.0000	ND	97.3	47 - 123		
1,1-Dichloropropene	40.5800	5.0	50.0000	ND	81.2	48 - 126		
1,2,3-Trichloropropane	33.4100	5.0	50.0000	ND	66.8	46 - 118		
1,2,3-Trichlorobenzene	18.8700	5.0	50.0000	ND	37.7	1 - 132		
1,2,4-Trichlorobenzene	20.4800	5.0	50.0000	ND	41.0	2 - 138		
1,2,4-Trimethylbenzene	21.6400	5.0	50.0000	ND	43.3	32 - 129		
1,2-Dibromo-3-chloropropane	36.5900	10	50.0000	ND	73.2	34 - 130		
1,2-Dibromoethane	37.0800	5.0	50.0000	ND	74.2	45 - 125		
1,2-Dichlorobenzene	27.4200	5.0	50.0000	ND	54.8	25 - 130		
1,2-Dichloroethane	37.2400	5.0	50.0000	ND	74.5	51 - 119		



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike (B6J0781-MS1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,2-Dichloropropane	37.8300	5.0	50.0000	ND	75.7	54 - 113			
1,3,5-Trimethylbenzene	27.4300	5.0	50.0000	ND	54.9	34 - 128			
1,3-Dichlorobenzene	28.6200	5.0	50.0000	ND	57.2	26 - 130			
1,3-Dichloropropane	37.0800	5.0	50.0000	ND	74.2	53 - 117			
1,4-Dichlorobenzene	29.0200	5.0	50.0000	ND	58.0	26 - 130			
2,2-Dichloropropane	45.8900	5.0	50.0000	ND	91.8	52 - 128			
2-Chlorotoluene	28.8600	5.0	50.0000	ND	57.7	34 - 126			
4-Chlorotoluene	29.8300	5.0	50.0000	ND	59.7	32 - 128			
4-Isopropyltoluene	28.8200	5.0	50.0000	ND	57.6	28 - 133			
Benzene	77.1900	5.0	100.000	ND	77.2	55 - 113			
Bromobenzene	31.3300	5.0	50.0000	ND	62.7	36 - 122			
Bromochloromethane	39.4800	5.0	50.0000	ND	79.0	50 - 118			
Bromodichloromethane	36.5700	5.0	50.0000	ND	73.1	51 - 117			
Bromoform	34.9800	5.0	50.0000	ND	70.0	39 - 130			
Bromomethane	57.1100	5.0	50.0000	ND	114	38 - 151			
Carbon disulfide	50.5000	5.0	50.0000	ND	101	38 - 126			
Carbon tetrachloride	42.4200	5.0	50.0000	ND	84.8	43 - 141			
Chlorobenzene	34.7400	5.0	50.0000	ND	69.5	42 - 122			
Chloroethane	52.0800	5.0	50.0000	ND	104	42 - 129			
Chloroform	39.7200	5.0	50.0000	ND	79.4	56 - 117			
Chloromethane	53.9500	5.0	50.0000	ND	108	35 - 127			
cis-1,2-Dichloroethene	40.2500	5.0	50.0000	ND	80.5	50 - 118			
cis-1,3-Dichloropropene	38.4600	5.0	50.0000	ND	76.9	45 - 118			
Di-isopropyl ether	40.1200	5.0	50.0000	ND	80.2	51 - 119			
Dibromochloromethane	35.1500	5.0	50.0000	ND	70.3	47 - 120			
Dibromomethane	37.2100	5.0	50.0000	ND	74.4	48 - 118			
Dichlorodifluoromethane	60.5100	5.0	50.0000	ND	121	43 - 126			
Ethyl Acetate	92.8400	50	500.000	ND	18.6	22 - 145			M2
Ethyl Ether	361.150	50	500.000	ND	72.2	49 - 114			
Ethyl tert-butyl ether	41.9800	5.0	50.0000	ND	84.0	54 - 120			
Ethylbenzene	66.6400	5.0	100.000	ND	66.6	42 - 123			
Freon-113	50.6100	5.0	50.0000	ND	101	45 - 132			
Hexachlorobutadiene	22.3900	5.0	50.0000	ND	44.8	4 - 135			
Isopropylbenzene	33.3000	5.0	50.0000	ND	66.6	40 - 127			
m,p-Xylene	61.4400	10	100.000	ND	61.4	39 - 127			
Methylene chloride	35.8300	5.0	50.0000	ND	71.7	51 - 140			
MTBE	40.4000	5.0	50.0000	ND	80.8	52 - 120			
n-Butylbenzene	26.6800	5.0	50.0000	ND	53.4	19 - 141			
n-Propylbenzene	30.1700	5.0	50.0000	ND	60.3	34 - 131			
Naphthalene	5.26000	5.0	50.0000	ND	10.5	11 - 136			M2
o-Xylene	67.8900	5.0	100.000	ND	67.9	40 - 124			
sec-Butylbenzene	28.6900	5.0	50.0000	ND	57.4	29 - 132			



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike (B6J0781-MS1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

Styrene	31.4800	5.0	50.0000	ND	63.0	36 - 130			
tert-Amyl methyl ether	40.7500	5.0	50.0000	ND	81.5	49 - 119			
tert-Butanol	214.630	100	250.000	ND	85.9	29 - 138			
tert-Butylbenzene	30.2100	5.0	50.0000	ND	60.4	34 - 129			
Tetrachloroethene	34.1900	5.0	50.0000	ND	68.4	37 - 132			
Toluene	73.1400	5.0	100.000	ND	73.1	48 - 122			
trans-1,2-Dichloroethene	41.0600	5.0	50.0000	ND	82.1	51 - 123			
trans-1,3-Dichloropropene	36.1000	5.0	50.0000	ND	72.2	38 - 125			
Trichloroethene	38.2800	5.0	50.0000	ND	76.6	41 - 136			
Trichlorofluoromethane	45.7300	5.0	50.0000	ND	91.5	44 - 126			
Vinyl acetate	21.9800	50	500.000	ND	4.40	0 - 154			J
Vinyl chloride	52.3000	5.0	50.0000	ND	105	47 - 122			
Surrogate: 1,2-Dichloroethane-d4	54.40		50.0000		109	12 - 186			
Surrogate: 4-Bromofluorobenzene	50.88		50.0000		102	23 - 162			
Surrogate: Dibromofluoromethane	53.15		50.0000		106	23 - 179			
Surrogate: Toluene-d8	51.97		50.0000		104	26 - 164			

Matrix Spike Dup (B6J0781-MSD1)

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	32.5700	5.0	50.0000	ND	65.1	45 - 124	7.85	20	
1,1,1-Trichloroethane	38.5000	5.0	50.0000	ND	77.0	53 - 125	10.6	20	
1,1,2,2-Tetrachloroethane	29.7500	5.0	50.0000	ND	59.5	42 - 117	11.4	20	
1,1,2-Trichloroethane	33.6600	5.0	50.0000	ND	67.3	48 - 120	11.1	20	
1,1-Dichloroethane	39.6800	5.0	50.0000	ND	79.4	54 - 116	7.24	20	
1,1-Dichloroethene	37.3300	5.0	50.0000	ND	74.7	47 - 123	26.4	20	R
1,1-Dichloropropene	36.6800	5.0	50.0000	ND	73.4	48 - 126	10.1	20	
1,2,3-Trichloropropane	30.8900	5.0	50.0000	ND	61.8	46 - 118	7.84	20	
1,2,3-Trichlorobenzene	15.7600	5.0	50.0000	ND	31.5	1 - 132	18.0	20	
1,2,4-Trichlorobenzene	17.4800	5.0	50.0000	ND	35.0	2 - 138	15.8	20	
1,2,4-Trimethylbenzene	15.7100	5.0	50.0000	ND	31.4	32 - 129	31.8	20	M2, R
1,2-Dibromo-3-chloropropane	32.1000	10	50.0000	ND	64.2	34 - 130	13.1	20	
1,2-Dibromoethane	33.5200	5.0	50.0000	ND	67.0	45 - 125	10.1	20	
1,2-Dichlorobenzene	23.5400	5.0	50.0000	ND	47.1	25 - 130	15.2	20	
1,2-Dichloroethane	34.5900	5.0	50.0000	ND	69.2	51 - 119	7.38	20	
1,2-Dichloropropane	35.5100	5.0	50.0000	ND	71.0	54 - 113	6.33	20	
1,3,5-Trimethylbenzene	22.7000	5.0	50.0000	ND	45.4	34 - 128	18.9	20	
1,3-Dichlorobenzene	26.0800	5.0	50.0000	ND	52.2	26 - 130	9.29	20	
1,3-Dichloropropane	33.5700	5.0	50.0000	ND	67.1	53 - 117	9.94	20	
1,4-Dichlorobenzene	26.0400	5.0	50.0000	ND	52.1	26 - 130	10.8	20	
2,2-Dichloropropane	42.0500	5.0	50.0000	ND	84.1	52 - 128	8.73	20	
2-Chlorotoluene	25.4900	5.0	50.0000	ND	51.0	34 - 126	12.4	20	
4-Chlorotoluene	26.8500	5.0	50.0000	ND	53.7	32 - 128	10.5	20	



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike Dup (B6J0781-MSD1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

4-Isopropyltoluene	26.9700	5.0	50.0000	ND	53.9	28 - 133	6.63	20	
Benzene	71.4100	5.0	100.000	ND	71.4	55 - 113	7.78	20	
Bromobenzene	27.8500	5.0	50.0000	ND	55.7	36 - 122	11.8	20	
Bromochloromethane	36.5200	5.0	50.0000	ND	73.0	50 - 118	7.79	20	
Bromodichloromethane	33.4000	5.0	50.0000	ND	66.8	51 - 117	9.06	20	
Bromoform	31.7100	5.0	50.0000	ND	63.4	39 - 130	9.81	20	
Bromomethane	52.0100	5.0	50.0000	ND	104	38 - 151	9.35	20	
Carbon disulfide	45.0900	5.0	50.0000	ND	90.2	38 - 126	11.3	20	
Carbon tetrachloride	38.7400	5.0	50.0000	ND	77.5	43 - 141	9.07	20	
Chlorobenzene	31.6800	5.0	50.0000	ND	63.4	42 - 122	9.21	20	
Chloroethane	48.9800	5.0	50.0000	ND	98.0	42 - 129	6.13	20	
Chloroform	36.8800	5.0	50.0000	ND	73.8	56 - 117	7.42	20	
Chloromethane	52.0200	5.0	50.0000	ND	104	35 - 127	3.64	20	
cis-1,2-Dichloroethene	37.1700	5.0	50.0000	ND	74.3	50 - 118	7.96	20	
cis-1,3-Dichloropropene	35.0400	5.0	50.0000	ND	70.1	45 - 118	9.31	20	
Di-isopropyl ether	37.9400	5.0	50.0000	ND	75.9	51 - 119	5.59	20	
Dibromochloromethane	31.9500	5.0	50.0000	ND	63.9	47 - 120	9.54	20	
Dibromomethane	33.5000	5.0	50.0000	ND	67.0	48 - 118	10.5	20	
Dichlorodifluoromethane	54.1000	5.0	50.0000	ND	108	43 - 126	11.2	20	
Ethyl Acetate	33.0700	50	500.000	ND	6.61	22 - 145	94.9	20	M2, R, J
Ethyl Ether	339.530	50	500.000	ND	67.9	49 - 114	6.17	20	
Ethyl tert-butyl ether	39.1000	5.0	50.0000	ND	78.2	54 - 120	7.10	20	
Ethylbenzene	61.9100	5.0	100.000	ND	61.9	42 - 123	7.36	20	
Freon-113	41.4400	5.0	50.0000	ND	82.9	45 - 132	19.9	20	
Hexachlorobutadiene	20.8800	5.0	50.0000	ND	41.8	4 - 135	6.98	20	
Isopropylbenzene	31.2700	5.0	50.0000	ND	62.5	40 - 127	6.29	20	
m,p-Xylene	54.8100	10	100.000	ND	54.8	39 - 127	11.4	20	
Methylene chloride	33.2500	5.0	50.0000	ND	66.5	51 - 140	7.47	20	
MTBE	38.5900	5.0	50.0000	ND	77.2	52 - 120	4.58	20	
n-Butylbenzene	25.1200	5.0	50.0000	ND	50.2	19 - 141	6.02	20	
n-Propylbenzene	28.2200	5.0	50.0000	ND	56.4	34 - 131	6.68	20	
Naphthalene	1.37000	5.0	50.0000	ND	2.74	11 - 136	117	20	M2, R, J
o-Xylene	61.7600	5.0	100.000	ND	61.8	40 - 124	9.46	20	
sec-Butylbenzene	27.0700	5.0	50.0000	ND	54.1	29 - 132	5.81	20	
Styrene	26.7500	5.0	50.0000	ND	53.5	36 - 130	16.2	20	
tert-Amyl methyl ether	38.2600	5.0	50.0000	ND	76.5	49 - 119	6.30	20	
tert-Butanol	191.370	100	250.000	ND	76.5	29 - 138	11.5	20	
tert-Butylbenzene	28.5500	5.0	50.0000	ND	57.1	34 - 129	5.65	20	
Tetrachloroethene	32.3400	5.0	50.0000	ND	64.7	37 - 132	5.56	20	
Toluene	67.3000	5.0	100.000	ND	67.3	48 - 122	8.32	20	
trans-1,2-Dichloroethene	37.2800	5.0	50.0000	ND	74.6	51 - 123	9.65	20	
trans-1,3-Dichloropropene	31.6000	5.0	50.0000	ND	63.2	38 - 125	13.3	20	



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike Dup (B6J0781-MSD1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

Trichloroethene	34.6500	5.0	50.0000	ND	69.3	41 - 136	9.95	20	
Trichlorofluoromethane	42.9800	5.0	50.0000	ND	86.0	44 - 126	6.20	20	
Vinyl acetate	ND	50	500.000	ND	NR	0 - 154		20	
Vinyl chloride	47.8000	5.0	50.0000	ND	95.6	47 - 122	8.99	20	
Surrogate: 1,2-Dichloroethane-d4	53.99		50.0000		108	12 - 186			
Surrogate: 4-Bromofluorobenzene	52.16		50.0000		104	23 - 162			
Surrogate: Dibromofluoromethane	53.43		50.0000		107	23 - 179			
Surrogate: Toluene-d8	51.62		50.0000		103	26 - 164			



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Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W

Blank (B6J0681-BLK1)

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	ND	10			NR
1,2-Dichlorobenzene	ND	10			NR
1,3-Dichlorobenzene	ND	10			NR
1,4-Dichlorobenzene	ND	10			NR
2,4,5-Trichlorophenol	ND	10			NR
2,4,6-Trichlorophenol	ND	10			NR
2,4-Dichlorophenol	ND	10			NR
2,4-Dimethylphenol	ND	10			NR
2,4-Dinitrophenol	ND	50			NR
2,4-Dinitrotoluene	ND	10			NR
2,6-Dinitrotoluene	ND	10			NR
2-Chloronaphthalene	ND	10			NR
2-Chlorophenol	ND	10			NR
2-Methylnaphthalene	ND	10			NR
2-Methylphenol	ND	10			NR
2-Nitroaniline	ND	50			NR
2-Nitrophenol	ND	10			NR
3,3'-Dichlorobenzidine	ND	20			NR
3-Nitroaniline	ND	50			NR
4,6-Dinitro-2-methylphenol	ND	50			NR
4-Bromophenyl-phenylether	ND	10			NR
4-Chloro-3-methylphenol	ND	50			NR
4-Chloroaniline	ND	20			NR
4-Chlorophenyl-phenylether	ND	10			NR
4-Methylphenol	ND	10			NR
4-Nitroaniline	ND	20			NR
4-Nitrophenol	ND	50			NR
Acenaphthene	ND	10			NR
Acenaphthylene	ND	10			NR
Anthracene	ND	10			NR
Benzidine (M)	ND	50			NR
Benzo(a)anthracene	ND	10			NR
Benzo(a)pyrene	ND	10			NR
Benzo(b)fluoranthene	ND	10			NR
Benzo(g,h,i)perylene	ND	10			NR
Benzo(k)fluoranthene	ND	10			NR
Benzoic acid	ND	50			NR
Benzyl alcohol	ND	20			NR
bis(2-chloroethoxy)methane	ND	10			NR
bis(2-Chloroethyl)ether	ND	10			NR
bis(2-chloroisopropyl)ether	ND	10			NR



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Blank (B6J0681-BLK1) - Continued

Prepared: 10/25/2016 Analyzed: 10/26/2016

bis(2-ethylhexyl)phthalate	ND	10			NR				
Butylbenzylphthalate	ND	10			NR				
Chrysene	ND	10			NR				
Di-n-butylphthalate	ND	10			NR				
Di-n-octylphthalate	ND	10			NR				
Dibenz(a,h)anthracene	ND	10			NR				
Dibenzofuran	ND	10			NR				
Diethyl phthalate	ND	10			NR				
Dimethyl phthalate	ND	10			NR				
Fluoranthene	ND	10			NR				
Fluorene	ND	10			NR				
Hexachlorobenzene	ND	10			NR				
Hexachlorobutadiene	ND	20			NR				
Hexachlorocyclopentadiene	ND	10			NR				
Hexachloroethane	ND	10			NR				
Indeno(1,2,3-cd)pyrene	ND	10			NR				
Isophorone	ND	10			NR				
N-Nitroso-di-n propylamine	ND	10			NR				
N-Nitrosodiphenylamine	ND	10			NR				
Naphthalene	ND	10			NR				
Nitrobenzene	ND	10			NR				
Pentachlorophenol	ND	50			NR				
Phenanthrene	ND	10			NR				
Phenol	ND	10			NR				
Pyrene	ND	10			NR				
Pyridine	ND	50			NR				

Surrogate: 1,2-Dichlorobenzene-d4	58.07		100.000		58.1	17 - 101
Surrogate: 2,4,6-Tribromophenol	66.72		100.000		66.7	38 - 101
Surrogate: 2-Chlorophenol-d4	55.27		100.000		55.3	21 - 86
Surrogate: 2-Fluorobiphenyl	67.23		100.000		67.2	29 - 109
Surrogate: 2-Fluorophenol	31.93		100.000		31.9	9 - 58
Surrogate: 4-Terphenyl-d14	85.81		100.000		85.8	49 - 122
Surrogate: Nitrobenzene-d5	65.30		100.000		65.3	19 - 111
Surrogate: Phenol-d5	21.15		100.000		21.2	6 - 50

LCS (B6J0681-BS1)

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	68.9200	10	100.000		68.9	53 - 104
1,2-Dichlorobenzene	66.3000	10	100.000		66.3	48 - 96
1,3-Dichlorobenzene	61.9100	10	100.000		61.9	46 - 95
1,4-Dichlorobenzene	62.1800	10	100.000		62.2	46 - 94
2,4,5-Trichlorophenol	79.6200	10	100.000		79.6	56 - 128



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

LCS (B6J0681-BS1) - Continued

Prepared: 10/25/2016 Analyzed: 10/26/2016

2,4,6-Trichlorophenol	76.7100	10	100.000		76.7	49 - 143			
2,4-Dichlorophenol	65.8200	10	100.000		65.8	57 - 117			
2,4-Dimethylphenol	49.4200	10	100.000		49.4	41 - 109			
2,4-Dinitrophenol	103.300	50	100.000		103	49 - 169			
2,4-Dinitrotoluene	97.8700	10	100.000		97.9	72 - 133			
2,6-Dinitrotoluene	95.1300	10	100.000		95.1	70 - 129			
2-Chloronaphthalene	86.0800	10	100.000		86.1	64 - 114			
2-Chlorophenol	48.6500	10	100.000		48.6	38 - 102			
2-Methylnaphthalene	80.6400	10	100.000		80.6	63 - 110			
2-Methylphenol	44.7300	10	100.000		44.7	43 - 83			
2-Nitroaniline	97.2600	50	100.000		97.3	56 - 151			
2-Nitrophenol	69.6200	10	100.000		69.6	48 - 126			
3,3'-Dichlorobenzidine	109.160	20	100.000		109	23 - 171			
3-Nitroaniline	82.9200	50	100.000		82.9	60 - 116			
4,6-Dinitro-2-methylphenol	101.400	50	100.000		101	59 - 160			
4-Bromophenyl-phenylether	84.5800	10	100.000		84.6	66 - 124			
4-Chloro-3-methylphenol	65.4800	50	100.000		65.5	63 - 116			
4-Chloroaniline	71.3000	20	100.000		71.3	50 - 105			
4-Chlorophenyl-phenylether	79.9800	10	100.000		80.0	63 - 118			
4-Methylphenol	48.1200	10	100.000		48.1	42 - 83			
4-Nitroaniline	92.0300	20	100.000		92.0	66 - 122			
4-Nitrophenol	33.6700	50	100.000		33.7	29 - 72			J
Acenaphthene	79.9200	10	100.000		79.9	52 - 124			
Acenaphthylene	82.4200	10	100.000		82.4	58 - 110			
Anthracene	90.7700	10	100.000		90.8	62 - 124			
Benzidine (M)	55.7200	50	100.000		55.7	12 - 124			
Benzo(a)anthracene	94.7800	10	100.000		94.8	58 - 118			
Benzo(a)pyrene	95.6300	10	100.000		95.6	57 - 132			
Benzo(b)fluoranthene	92.1900	10	100.000		92.2	56 - 126			
Benzo(g,h,i)perylene	92.0400	10	100.000		92.0	52 - 125			
Benzo(k)fluoranthene	94.3100	10	100.000		94.3	50 - 131			
Benzoic acid	40.6400	50	100.000		40.6	0 - 142			J
Benzyl alcohol	65.2300	20	100.000		65.2	51 - 99			
bis(2-chloroethoxy)methane	70.7500	10	100.000		70.8	50 - 103			
bis(2-Chloroethyl)ether	65.1200	10	100.000		65.1	43 - 102			
bis(2-chloroisopropyl)ether	65.5200	10	100.000		65.5	32 - 112			
bis(2-ethylhexyl)phthalate	100.270	10	100.000		100	60 - 131			
Butylbenzylphthalate	92.0000	10	100.000		92.0	69 - 127			
Chrysene	88.5400	10	100.000		88.5	53 - 125			
Di-n-butylphthalate	107.170	10	100.000		107	64 - 137			
Di-n-octylphthalate	108.550	10	100.000		109	57 - 140			
Dibenz(a,h)anthracene	115.140	10	100.000		115	43 - 144			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

LCS (B6J0681-BS1) - Continued

Prepared: 10/25/2016 Analyzed: 10/26/2016

Dibenzofuran	88.7000	10	100.000		88.7	68 - 115		
Diethyl phthalate	100.110	10	100.000		100	63 - 142		
Dimethyl phthalate	91.5600	10	100.000		91.6	69 - 124		
Fluoranthene	91.7800	10	100.000		91.8	63 - 120		
Fluorene	83.8300	10	100.000		83.8	57 - 118		
Hexachlorobenzene	88.2800	10	100.000		88.3	69 - 121		
Hexachlorobutadiene	63.7000	20	100.000		63.7	43 - 99		
Hexachlorocyclopentadiene	76.8300	10	100.000		76.8	50 - 112		
Hexachloroethane	65.4300	10	100.000		65.4	42 - 112		
Indeno(1,2,3-cd)pyrene	112.110	10	100.000		112	54 - 148		
Isophorone	72.7100	10	100.000		72.7	57 - 102		
N-Nitroso-di-n propylamine	77.9000	10	100.000		77.9	57 - 115		
N-Nitrosodiphenylamine	104.520	10	100.000		105	73 - 123		
Naphthalene	71.1300	10	100.000		71.1	50 - 96		
Nitrobenzene	80.8400	10	100.000		80.8	59 - 112		
Pentachlorophenol	52.1800	50	100.000		52.2	51 - 144		
Phenanthrene	92.4100	10	100.000		92.4	57 - 121		
Phenol	23.6400	10	100.000		23.6	18 - 55		
Pyrene	93.3500	10	100.000		93.4	62 - 122		
Pyridine	26.1400	50	100.000		26.1	10 - 61		J
Surrogate: 1,2-Dichlorobenzene-d4	54.49		100.000		54.5	17 - 101		
Surrogate: 2,4,6-Tribromophenol	70.36		100.000		70.4	38 - 101		
Surrogate: 2-Chlorophenol-d4	50.70		100.000		50.7	21 - 86		
Surrogate: 2-Fluorobiphenyl	77.19		100.000		77.2	29 - 109		
Surrogate: 2-Fluorophenol	27.44		100.000		27.4	9 - 58		
Surrogate: 4-Terphenyl-d14	75.67		100.000		75.7	49 - 122		
Surrogate: Nitrobenzene-d5	68.72		100.000		68.7	19 - 111		
Surrogate: Phenol-d5	19.32		100.000		19.3	6 - 50		

Matrix Spike (B6J0681-MS1)

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	76.3900	10	100.000	ND	76.4	53 - 104
1,2-Dichlorobenzene	75.3600	10	100.000	ND	75.4	48 - 96
1,3-Dichlorobenzene	71.0800	10	100.000	ND	71.1	46 - 95
1,4-Dichlorobenzene	71.0000	10	100.000	ND	71.0	46 - 94
2,4,5-Trichlorophenol	92.0200	10	100.000	ND	92.0	56 - 128
2,4,6-Trichlorophenol	89.1400	10	100.000	ND	89.1	49 - 143
2,4-Dichlorophenol	74.3400	10	100.000	ND	74.3	57 - 117
2,4-Dimethylphenol	68.0200	10	100.000	ND	68.0	41 - 109
2,4-Dinitrophenol	123.010	50	100.000	ND	123	49 - 169
2,4-Dinitrotoluene	114.880	10	100.000	ND	115	72 - 133
2,6-Dinitrotoluene	109.810	10	100.000	ND	110	70 - 129



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Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike (B6J0681-MS1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

2-Chloronaphthalene	96.1000	10	100.000	ND	96.1	64 - 114			
2-Chlorophenol	56.2500	10	100.000	ND	56.2	38 - 102			
2-Methylnaphthalene	88.0900	10	100.000	ND	88.1	63 - 110			
2-Methylphenol	53.6000	10	100.000	ND	53.6	43 - 83			
2-Nitroaniline	114.220	50	100.000	ND	114	56 - 151			
2-Nitrophenol	75.5800	10	100.000	ND	75.6	48 - 126			
3,3'-Dichlorobenzidine	122.210	20	100.000	ND	122	23 - 171			
3-Nitroaniline	98.4700	50	100.000	ND	98.5	60 - 116			
4,6-Dinitro-2-methylphenol	117.090	50	100.000	ND	117	59 - 160			
4-Bromophenyl-phenylether	99.4200	10	100.000	ND	99.4	66 - 124			
4-Chloro-3-methylphenol	76.6700	50	100.000	ND	76.7	63 - 116			
4-Chloroaniline	85.2700	20	100.000	ND	85.3	50 - 105			
4-Chlorophenyl-phenylether	93.5300	10	100.000	ND	93.5	63 - 118			
4-Methylphenol	56.8200	10	100.000	ND	56.8	42 - 83			
4-Nitroaniline	109.120	20	100.000	ND	109	66 - 122			
4-Nitrophenol	43.7600	50	100.000	ND	43.8	29 - 72			J
Acenaphthene	88.6400	10	100.000	ND	88.6	52 - 124			
Acenaphthylene	92.1300	10	100.000	ND	92.1	58 - 110			
Anthracene	105.090	10	100.000	ND	105	62 - 124			
Benzidine (M)	ND	50	100.000	ND	NR	12 - 142			
Benzo(a)anthracene	111.100	10	100.000	ND	111	58 - 118			
Benzo(a)pyrene	116.630	10	100.000	ND	117	57 - 132			
Benzo(b)fluoranthene	113.360	10	100.000	ND	113	56 - 126			
Benzo(g,h,i)perylene	111.600	10	100.000	ND	112	52 - 125			
Benzo(k)fluoranthene	113.110	10	100.000	ND	113	50 - 131			
Benzoic acid	41.1200	50	100.000	ND	41.1	0 - 142			J
Benzyl alcohol	77.9700	20	100.000	ND	78.0	51 - 99			
bis(2-chloroethoxy)methane	78.8300	10	100.000	ND	78.8	50 - 103			
bis(2-Chloroethyl)ether	74.7200	10	100.000	ND	74.7	43 - 102			
bis(2-chloroisopropyl)ether	73.4500	10	100.000	ND	73.4	32 - 112			
bis(2-ethylhexyl)phthalate	117.570	10	100.000	ND	118	60 - 131			
Butylbenzylphthalate	105.080	10	100.000	ND	105	69 - 127			
Chrysene	101.170	10	100.000	ND	101	53 - 125			
Di-n-butylphthalate	126.010	10	100.000	ND	126	64 - 137			
Di-n-octylphthalate	135.270	10	100.000	ND	135	57 - 140			
Dibenz(a,h)anthracene	141.170	10	100.000	ND	141	43 - 144			
Dibenzofuran	99.2100	10	100.000	ND	99.2	68 - 115			
Diethyl phthalate	118.280	10	100.000	ND	118	63 - 142			
Dimethyl phthalate	108.890	10	100.000	ND	109	69 - 124			
Fluoranthene	102.350	10	100.000	ND	102	63 - 120			
Fluorene	94.8700	10	100.000	ND	94.9	57 - 118			
Hexachlorobenzene	101.550	10	100.000	ND	102	69 - 121			



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Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike (B6J0681-MS1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

Hexachlorobutadiene	69.9000	20	100.000	ND	69.9	43 - 99			
Hexachlorocyclopentadiene	86.9200	10	100.000	ND	86.9	50 - 112			
Hexachloroethane	75.0400	10	100.000	ND	75.0	42 - 112			
Indeno(1,2,3-cd)pyrene	134.110	10	100.000	ND	134	54 - 148			
Isophorone	82.4400	10	100.000	ND	82.4	57 - 102			
N-Nitroso-di-n propylamine	88.2000	10	100.000	ND	88.2	57 - 115			
N-Nitrosodiphenylamine	121.520	10	100.000	ND	122	73 - 123			
Naphthalene	76.8900	10	100.000	ND	76.9	50 - 96			
Nitrobenzene	87.4900	10	100.000	ND	87.5	59 - 112			
Pentachlorophenol	62.0300	50	100.000	ND	62.0	51 - 144			
Phenanthrene	104.770	10	100.000	ND	105	57 - 121			
Phenol	28.3100	10	100.000	ND	28.3	18 - 55			
Pyrene	109.240	10	100.000	ND	109	62 - 122			
Pyridine	26.9400	50	100.000	ND	26.9	10 - 61			J

Surrogate: 1,2-Dichlorobenzene-d4	63.37		100.000		63.4	17 - 101			
Surrogate: 2,4,6-Tribromophenol	80.60		100.000		80.6	38 - 101			
Surrogate: 2-Chlorophenol-d4	58.15		100.000		58.2	21 - 86			
Surrogate: 2-Fluorobiphenyl	87.13		100.000		87.1	29 - 109			
Surrogate: 2-Fluorophenol	32.05		100.000		32.0	9 - 58			
Surrogate: 4-Terphenyl-d14	94.21		100.000		94.2	49 - 122			
Surrogate: Nitrobenzene-d5	76.24		100.000		76.2	19 - 111			
Surrogate: Phenol-d5	24.86		100.000		24.9	6 - 50			

Matrix Spike Dup (B6J0681-MSD1)

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	56.2600	10	100.000	ND	56.3	53 - 104	30.4	20	R
1,2-Dichlorobenzene	55.4600	10	100.000	ND	55.5	48 - 96	30.4	20	R
1,3-Dichlorobenzene	51.4200	10	100.000	ND	51.4	46 - 95	32.1	20	R
1,4-Dichlorobenzene	51.5800	10	100.000	ND	51.6	46 - 94	31.7	20	R
2,4,5-Trichlorophenol	77.0400	10	100.000	ND	77.0	56 - 128	17.7	20	
2,4,6-Trichlorophenol	72.5200	10	100.000	ND	72.5	49 - 143	20.6	20	R
2,4-Dichlorophenol	55.8600	10	100.000	ND	55.9	57 - 117	28.4	20	M2, R
2,4-Dimethylphenol	53.0000	10	100.000	ND	53.0	41 - 109	24.8	20	R
2,4-Dinitrophenol	112.030	50	100.000	ND	112	49 - 169	9.34	20	
2,4-Dinitrotoluene	103.200	10	100.000	ND	103	72 - 133	10.7	20	
2,6-Dinitrotoluene	96.8800	10	100.000	ND	96.9	70 - 129	12.5	20	
2-Chloronaphthalene	74.3400	10	100.000	ND	74.3	64 - 114	25.5	20	R
2-Chlorophenol	41.7100	10	100.000	ND	41.7	38 - 102	29.7	20	R
2-Methylnaphthalene	67.4800	10	100.000	ND	67.5	63 - 110	26.5	20	R
2-Methylphenol	42.2800	10	100.000	ND	42.3	43 - 83	23.6	20	M2, R
2-Nitroaniline	100.620	50	100.000	ND	101	56 - 151	12.7	20	
2-Nitrophenol	59.0700	10	100.000	ND	59.1	48 - 126	24.5	20	R



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike Dup (B6J0681-MSD1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

3,3'-Dichlorobenzidine	107.150	20	100.000	ND	107	23 - 171	13.1	20	
3-Nitroaniline	90.3000	50	100.000	ND	90.3	60 - 116	8.66	20	
4,6-Dinitro-2-methylphenol	104.620	50	100.000	ND	105	59 - 160	11.2	20	
4-Bromophenyl-phenylether	84.1500	10	100.000	ND	84.2	66 - 124	16.6	20	
4-Chloro-3-methylphenol	63.5300	50	100.000	ND	63.5	63 - 116	18.7	20	
4-Chloroaniline	75.4700	20	100.000	ND	75.5	50 - 105	12.2	20	
4-Chlorophenyl-phenylether	78.7500	10	100.000	ND	78.8	63 - 118	17.2	20	
4-Methylphenol	44.4200	10	100.000	ND	44.4	42 - 83	24.5	20	R
4-Nitroaniline	98.3900	20	100.000	ND	98.4	66 - 122	10.3	20	
4-Nitrophenol	36.6500	50	100.000	ND	36.6	29 - 72	17.7	20	J
Acenaphthene	71.9300	10	100.000	ND	71.9	52 - 124	20.8	20	R
Acenaphthylene	73.9600	10	100.000	ND	74.0	58 - 110	21.9	20	R
Anthracene	89.8000	10	100.000	ND	89.8	62 - 124	15.7	20	
Benzidine (M)	ND	50	100.000	ND	NR	12 - 142		20	
Benzo(a)anthracene	98.4100	10	100.000	ND	98.4	58 - 118	12.1	20	
Benzo(a)pyrene	102.570	10	100.000	ND	103	57 - 132	12.8	20	
Benzo(b)fluoranthene	99.4600	10	100.000	ND	99.5	56 - 126	13.1	20	
Benzo(g,h,i)perylene	95.8000	10	100.000	ND	95.8	52 - 125	15.2	20	
Benzo(k)fluoranthene	96.4000	10	100.000	ND	96.4	50 - 131	16.0	20	
Benzoic acid	ND	50	100.000	ND	NR	0 - 142		20	
Benzyl alcohol	63.4000	20	100.000	ND	63.4	51 - 99	20.6	20	R
bis(2-chloroethoxy)methane	59.4900	10	100.000	ND	59.5	50 - 103	28.0	20	R
bis(2-Chloroethyl)ether	54.3000	10	100.000	ND	54.3	43 - 102	31.7	20	R
bis(2-chloroisopropyl)ether	55.2600	10	100.000	ND	55.3	32 - 112	28.3	20	R
bis(2-ethylhexyl)phthalate	103.780	10	100.000	ND	104	60 - 131	12.5	20	
Butylbenzylphthalate	96.0000	10	100.000	ND	96.0	69 - 127	9.03	20	
Chrysene	90.3000	10	100.000	ND	90.3	53 - 125	11.4	20	
Di-n-butylphthalate	110.100	10	100.000	ND	110	64 - 137	13.5	20	
Di-n-octylphthalate	117.600	10	100.000	ND	118	57 - 140	14.0	20	
Dibenz(a,h)anthracene	119.700	10	100.000	ND	120	43 - 144	16.5	20	
Dibenzofuran	83.0000	10	100.000	ND	83.0	68 - 115	17.8	20	
Diethyl phthalate	105.250	10	100.000	ND	105	63 - 142	11.7	20	
Dimethyl phthalate	95.2400	10	100.000	ND	95.2	69 - 124	13.4	20	
Fluoranthene	91.4500	10	100.000	ND	91.4	63 - 120	11.2	20	
Fluorene	81.7500	10	100.000	ND	81.8	57 - 118	14.9	20	
Hexachlorobenzene	86.7000	10	100.000	ND	86.7	69 - 121	15.8	20	
Hexachlorobutadiene	50.3600	20	100.000	ND	50.4	43 - 99	32.5	20	R
Hexachlorocyclopentadiene	63.3600	10	100.000	ND	63.4	50 - 112	31.4	20	R
Hexachloroethane	54.4000	10	100.000	ND	54.4	42 - 112	31.9	20	R
Indeno(1,2,3-cd)pyrene	116.770	10	100.000	ND	117	54 - 148	13.8	20	
Isophorone	63.6400	10	100.000	ND	63.6	57 - 102	25.7	20	R
N-Nitroso-di-n propylamine	67.3700	10	100.000	ND	67.4	57 - 115	26.8	20	R



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Project Number : ROOSEVELT HS, 265642
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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike Dup (B6J0681-MSD1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

N-Nitrosodiphenylamine	104.840	10	100.000	ND	105	73 - 123	14.7	20	
Naphthalene	57.9700	10	100.000	ND	58.0	50 - 96	28.1	20	R
Nitrobenzene	66.4300	10	100.000	ND	66.4	59 - 112	27.4	20	R
Pentachlorophenol	55.5700	50	100.000	ND	55.6	51 - 144	11.0	20	
Phenanthrene	89.3300	10	100.000	ND	89.3	57 - 121	15.9	20	
Phenol	21.3700	10	100.000	ND	21.4	18 - 55	27.9	20	R
Pyrene	94.5400	10	100.000	ND	94.5	62 - 122	14.4	20	
Pyridine	28.9100	50	100.000	ND	28.9	10 - 61	7.05	20	J
Surrogate: 1,2-Dichlorobenzene-d4	45.99		100.000		46.0	17 - 101			
Surrogate: 2,4,6-Tribromophenol	72.53		100.000		72.5	38 - 101			
Surrogate: 2-Chlorophenol-d4	42.40		100.000		42.4	21 - 86			
Surrogate: 2-Fluorobiphenyl	66.13		100.000		66.1	29 - 109			
Surrogate: 2-Fluorophenol	21.85		100.000		21.8	9 - 58			
Surrogate: 4-Terphenyl-d14	81.90		100.000		81.9	49 - 122			
Surrogate: Nitrobenzene-d5	56.47		100.000		56.5	19 - 111			
Surrogate: Phenol-d5	16.19		100.000		16.2	6 - 50			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S

Blank (B6K0118-BLK1)

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	ND	330			NR
1,2-Dichlorobenzene	ND	330			NR
1,3-Dichlorobenzene	ND	330			NR
1,4-Dichlorobenzene	ND	330			NR
2,4,5-Trichlorophenol	ND	330			NR
2,4,6-Trichlorophenol	ND	330			NR
2,4-Dichlorophenol	ND	1600			NR
2,4-Dimethylphenol	ND	330			NR
2,4-Dinitrophenol	ND	1600			NR
2,4-Dinitrotoluene	ND	330			NR
2,6-Dinitrotoluene	ND	330			NR
2-Chloronaphthalene	ND	330			NR
2-Chlorophenol	ND	330			NR
2-Methylnaphthalene	ND	330			NR
2-Methylphenol	ND	330			NR
2-Nitroaniline	ND	1600			NR
2-Nitrophenol	ND	330			NR
3,3'-Dichlorobenzidine	ND	660			NR
3-Nitroaniline	ND	1600			NR
4,6-Dinitro-2-methylphenol	ND	1600			NR
4-Bromophenyl-phenylether	ND	330			NR
4-Chloro-3-methylphenol	ND	660			NR
4-Chloroaniline	ND	660			NR
4-Chlorophenyl-phenylether	ND	330			NR
4-Methylphenol	ND	330			NR
4-Nitroaniline	ND	1600			NR
4-Nitrophenol	ND	330			NR
Acenaphthene	ND	330			NR
Acenaphthylene	ND	330			NR
Anthracene	ND	330			NR
Benzidine (M)	ND	1600			NR
Benzo(a)anthracene	ND	330			NR
Benzo(a)pyrene	ND	330			NR
Benzo(b)fluoranthene	ND	330			NR
Benzo(g,h,i)perylene	ND	330			NR
Benzo(k)fluoranthene	ND	330			NR
Benzoic acid	ND	1600			NR
Benzyl alcohol	ND	660			NR
bis(2-chloroethoxy)methane	ND	330			NR
bis(2-Chloroethyl)ether	ND	330			NR
bis(2-chloroisopropyl)ether	ND	330			NR



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Blank (B6K0118-BLK1) - Continued

Prepared: 11/2/2016 Analyzed: 11/4/2016

bis(2-ethylhexyl)phthalate	ND	330			NR				
Butylbenzylphthalate	ND	330			NR				
Chrysene	ND	330			NR				
Di-n-butylphthalate	ND	330			NR				
Di-n-octylphthalate	ND	330			NR				
Dibenz(a,h)anthracene	ND	330			NR				
Dibenzofuran	ND	330			NR				
Diethyl phthalate	ND	330			NR				
Dimethyl phthalate	ND	330			NR				
Fluoranthene	ND	330			NR				
Fluorene	ND	330			NR				
Hexachlorobenzene	ND	330			NR				
Hexachlorobutadiene	ND	660			NR				
Hexachlorocyclopentadiene	ND	660			NR				
Hexachloroethane	ND	330			NR				
Indeno(1,2,3-cd)pyrene	ND	330			NR				
Isophorone	ND	330			NR				
N-Nitroso-di-n propylamine	ND	330			NR				
N-Nitrosodiphenylamine	ND	330			NR				
Naphthalene	ND	330			NR				
Nitrobenzene	ND	330			NR				
Pentachlorophenol	ND	1600			NR				
Phenanthrene	ND	330			NR				
Phenol	ND	330			NR				
Pyrene	ND	330			NR				
Pyridine	ND	1600			NR				

Surrogate: 1,2-Dichlorobenzene-d4	1731		3333.33		51.9	22 - 107			
Surrogate: 2,4,6-Tribromophenol	1917		3333.33		57.5	12 - 129			
Surrogate: 2-Chlorophenol-d4	1672		3333.33		50.2	34 - 102			
Surrogate: 2-Fluorobiphenyl	1750		3333.33		52.5	25 - 116			
Surrogate: 2-Fluorophenol	1565		3333.33		46.9	32 - 101			
Surrogate: 4-Terphenyl-d14	2868		3333.33		86.0	34 - 125			
Surrogate: Nitrobenzene-d5	1709		3333.33		51.3	30 - 115			
Surrogate: Phenol-d5	1685		3333.33		50.6	34 - 104			

LCS (B6K0118-BS1)

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3312.00	330	3333.33		99.4	58 - 105			
1,2-Dichlorobenzene	3001.33	330	3333.33		90.0	58 - 99			
1,3-Dichlorobenzene	2938.00	330	3333.33		88.1	57 - 100			
1,4-Dichlorobenzene	2942.00	330	3333.33		88.3	57 - 93			
2,4,5-Trichlorophenol	2942.00	330	3333.33		88.3	63 - 128			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

LCS (B6K0118-BS1) - Continued

Prepared: 11/2/2016 Analyzed: 11/4/2016

2,4,6-Trichlorophenol	2680.67	330	3333.33		80.4	51 - 156			
2,4-Dichlorophenol	2593.00	1600	3333.33		77.8	56 - 140			
2,4-Dimethylphenol	2145.33	330	3333.33		64.4	47 - 134			
2,4-Dinitrophenol	2771.00	1600	3333.33		83.1	49 - 159			
2,4-Dinitrotoluene	3722.33	330	3333.33		112	66 - 132			
2,6-Dinitrotoluene	3651.33	330	3333.33		110	65 - 130			
2-Chloronaphthalene	3404.67	330	3333.33		102	65 - 112			
2-Chlorophenol	2184.00	330	3333.33		65.5	47 - 132			
2-Methylnaphthalene	3372.67	330	3333.33		101	62 - 118			
2-Methylphenol	2352.33	330	3333.33		70.6	54 - 113			
2-Nitroaniline	1839.00	1600	3333.33		55.2	53 - 152			
2-Nitrophenol	2500.00	330	3333.33		75.0	46 - 149			
3,3'-Dichlorobenzidine	2798.33	660	3333.33		84.0	45 - 155			
3-Nitroaniline	1973.00	1600	3333.33		59.2	58 - 126			
4,6-Dinitro-2-methylphenol	2975.33	1600	3333.33		89.3	55 - 175			
4-Bromophenyl-phenylether	3105.33	330	3333.33		93.2	62 - 118			
4-Chloro-3-methylphenol	2827.00	660	3333.33		84.8	61 - 145			
4-Chloroaniline	1692.33	660	3333.33		50.8	57 - 115			L4
4-Chlorophenyl-phenylether	2882.67	330	3333.33		86.5	60 - 117			
4-Methylphenol	2654.67	330	3333.33		79.6	58 - 120			
4-Nitroaniline	2008.00	1600	3333.33		60.2	62 - 132			L4
4-Nitrophenol	2742.67	330	3333.33		82.3	46 - 181			
Acenaphthene	2606.67	330	3333.33		78.2	53 - 120			
Acenaphthylene	2616.67	330	3333.33		78.5	57 - 112			
Anthracene	2831.67	330	3333.33		85.0	63 - 122			
Benzidine (M)	3124.33	1600	3333.33		93.7	0 - 204			
Benzo(a)anthracene	2857.33	330	3333.33		85.7	59 - 120			
Benzo(a)pyrene	2730.67	330	3333.33		81.9	60 - 132			
Benzo(b)fluoranthene	2782.33	330	3333.33		83.5	59 - 128			
Benzo(g,h,i)perylene	2805.67	330	3333.33		84.2	56 - 122			
Benzo(k)fluoranthene	2994.67	330	3333.33		89.8	53 - 130			
Benzoic acid	1491.33	1600	3333.33		44.7	11 - 132			J
Benzyl alcohol	3298.33	660	3333.33		99.0	64 - 120			
bis(2-chloroethoxy)methane	2461.33	330	3333.33		73.8	55 - 101			
bis(2-Chloroethyl)ether	2408.67	330	3333.33		72.3	55 - 100			
bis(2-chloroisopropyl)ether	2243.00	330	3333.33		67.3	30 - 126			
bis(2-ethylhexyl)phthalate	2607.33	330	3333.33		78.2	62 - 130			
Butylbenzylphthalate	2792.67	330	3333.33		83.8	61 - 136			
Chrysene	2954.67	330	3333.33		88.6	54 - 122			
Di-n-butylphthalate	3061.00	330	3333.33		91.8	68 - 126			
Di-n-octylphthalate	2580.33	330	3333.33		77.4	57 - 145			
Dibenz(a,h)anthracene	2571.33	330	3333.33		77.1	52 - 136			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

LCS (B6K0118-BS1) - Continued

Prepared: 11/2/2016 Analyzed: 11/4/2016

Dibenzofuran	3552.00	330	3333.33	107	66 - 118			
Diethyl phthalate	3016.33	330	3333.33	90.5	66 - 127			
Dimethyl phthalate	2959.00	330	3333.33	88.8	65 - 121			
Fluoranthene	2925.67	330	3333.33	87.8	60 - 120			
Fluorene	2743.33	330	3333.33	82.3	55 - 119			
Hexachlorobenzene	3986.00	330	3333.33	120	64 - 119			L4
Hexachlorobutadiene	2843.33	660	3333.33	85.3	48 - 101			
Hexachlorocyclopentadiene	3385.67	660	3333.33	102	46 - 123			
Hexachloroethane	2841.00	330	3333.33	85.2	57 - 104			
Indeno(1,2,3-cd)pyrene	2603.33	330	3333.33	78.1	60 - 140			
Isophorone	2596.33	330	3333.33	77.9	49 - 118			
N-Nitroso-di-n propylamine	2502.33	330	3333.33	75.1	56 - 118			
N-Nitrosodiphenylamine	3115.67	330	3333.33	93.5	66 - 126			
Naphthalene	2473.67	330	3333.33	74.2	51 - 103			
Nitrobenzene	3146.67	330	3333.33	94.4	62 - 111			
Pentachlorophenol	2505.33	1600	3333.33	75.2	54 - 144			
Phenanthrene	2865.33	330	3333.33	86.0	58 - 120			
Phenol	2288.00	330	3333.33	68.6	46 - 139			
Pyrene	2993.33	330	3333.33	89.8	59 - 122			
Pyridine	2093.00	1600	3333.33	62.8	26 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2237		3333.33	67.1	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2715		3333.33	81.5	12 - 129			
Surrogate: 2-Chlorophenol-d4	2167		3333.33	65.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2423		3333.33	72.7	25 - 116			
Surrogate: 2-Fluorophenol	1999		3333.33	60.0	32 - 101			
Surrogate: 4-Terphenyl-d14	2718		3333.33	81.5	34 - 125			
Surrogate: Nitrobenzene-d5	2243		3333.33	67.3	30 - 115			
Surrogate: Phenol-d5	2176		3333.33	65.3	34 - 104			

Duplicate (B6K0118-DUP1)

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	ND	330	ND	NR	20
1,2-Dichlorobenzene	ND	330	ND	NR	20
1,3-Dichlorobenzene	ND	330	ND	NR	20
1,4-Dichlorobenzene	ND	330	ND	NR	20
2,4,5-Trichlorophenol	ND	330	ND	NR	20
2,4,6-Trichlorophenol	ND	330	ND	NR	20
2,4-Dichlorophenol	ND	1600	ND	NR	20
2,4-Dimethylphenol	ND	330	ND	NR	20
2,4-Dinitrophenol	ND	1600	ND	NR	20
2,4-Dinitrotoluene	ND	330	ND	NR	20
2,6-Dinitrotoluene	ND	330	ND	NR	20



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

2-Chloronaphthalene	ND	330		ND	NR			20	
2-Chlorophenol	ND	330		ND	NR			20	
2-Methylnaphthalene	ND	330		ND	NR			20	
2-Methylphenol	ND	330		ND	NR			20	
2-Nitroaniline	ND	1600		ND	NR			20	
2-Nitrophenol	ND	330		ND	NR			20	
3,3'-Dichlorobenzidine	ND	660		ND	NR			20	
3-Nitroaniline	ND	1600		ND	NR			20	
4,6-Dinitro-2-methylphenol	ND	1600		ND	NR			20	
4-Bromophenyl-phenylether	ND	330		ND	NR			20	
4-Chloro-3-methylphenol	ND	660		ND	NR			20	
4-Chloroaniline	ND	660		ND	NR			20	
4-Chlorophenyl-phenylether	ND	330		ND	NR			20	
4-Methylphenol	ND	330		ND	NR			20	
4-Nitroaniline	ND	1600		ND	NR			20	
4-Nitrophenol	ND	330		ND	NR			20	
Acenaphthene	ND	330		ND	NR			20	
Acenaphthylene	ND	330		ND	NR			20	
Anthracene	ND	330		ND	NR			20	
Benzidine (M)	ND	1600		ND	NR			20	
Benzo(a)anthracene	ND	330		ND	NR			20	
Benzo(a)pyrene	ND	330		ND	NR			20	
Benzo(b)fluoranthene	ND	330		ND	NR			20	
Benzo(g,h,i)perylene	ND	330		ND	NR			20	
Benzo(k)fluoranthene	ND	330		ND	NR			20	
Benzoic acid	ND	1600		ND	NR			20	
Benzyl alcohol	ND	660		ND	NR			20	
bis(2-chloroethoxy)methane	ND	330		ND	NR			20	
bis(2-Chloroethyl)ether	ND	330		ND	NR			20	
bis(2-chloroisopropyl)ether	ND	330		ND	NR			20	
bis(2-ethylhexyl)phthalate	ND	330		ND	NR			20	
Butylbenzylphthalate	ND	330		ND	NR			20	
Chrysene	ND	330		ND	NR			20	
Di-n-butylphthalate	ND	330		ND	NR			20	
Di-n-octylphthalate	ND	330		ND	NR			20	
Dibenz(a,h)anthracene	ND	330		ND	NR			20	
Dibenzofuran	ND	330		ND	NR			20	
Diethyl phthalate	ND	330		ND	NR			20	
Dimethyl phthalate	ND	330		ND	NR			20	
Fluoranthene	ND	330		ND	NR			20	
Fluorene	ND	330		ND	NR			20	
Hexachlorobenzene	ND	330		ND	NR			20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

Hexachlorobutadiene	ND	660		ND	NR			20	
Hexachlorocyclopentadiene	ND	660		ND	NR			20	
Hexachloroethane	ND	330		ND	NR			20	
Indeno(1,2,3-cd)pyrene	ND	330		ND	NR			20	
Isophorone	ND	330		ND	NR			20	
N-Nitroso-di-n propylamine	ND	330		ND	NR			20	
N-Nitrosodiphenylamine	ND	330		ND	NR			20	
Naphthalene	ND	330		ND	NR			20	
Nitrobenzene	ND	330		ND	NR			20	
Pentachlorophenol	ND	1600		ND	NR			20	
Phenanthrene	ND	330		ND	NR			20	
Phenol	ND	330		ND	NR			20	
Pyrene	ND	330		ND	NR			20	
Pyridine	ND	1600		ND	NR			20	

Surrogate: 1,2-Dichlorobenzene-d4	2499	3333.33	75.0	22 - 107
Surrogate: 2,4,6-Tribromophenol	2925	3333.33	87.8	12 - 129
Surrogate: 2-Chlorophenol-d4	2501	3333.33	75.0	34 - 102
Surrogate: 2-Fluorobiphenyl	2598	3333.33	77.9	25 - 116
Surrogate: 2-Fluorophenol	2297	3333.33	68.9	32 - 101
Surrogate: 4-Terphenyl-d14	3233	3333.33	97.0	34 - 125
Surrogate: Nitrobenzene-d5	2495	3333.33	74.9	30 - 115
Surrogate: Phenol-d5	2543	3333.33	76.3	34 - 104

Duplicate (B6K0118-DUP2)

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	ND	330	ND	NR	20
1,2-Dichlorobenzene	ND	330	ND	NR	20
1,3-Dichlorobenzene	ND	330	ND	NR	20
1,4-Dichlorobenzene	ND	330	ND	NR	20
2,4,5-Trichlorophenol	ND	330	ND	NR	20
2,4,6-Trichlorophenol	ND	330	ND	NR	20
2,4-Dichlorophenol	ND	1600	ND	NR	20
2,4-Dimethylphenol	ND	330	ND	NR	20
2,4-Dinitrophenol	ND	1600	ND	NR	20
2,4-Dinitrotoluene	ND	330	ND	NR	20
2,6-Dinitrotoluene	ND	330	ND	NR	20
2-Chloronaphthalene	ND	330	ND	NR	20
2-Chlorophenol	ND	330	ND	NR	20
2-Methylnaphthalene	ND	330	ND	NR	20
2-Methylphenol	ND	330	ND	NR	20
2-Nitroaniline	ND	1600	ND	NR	20
2-Nitrophenol	ND	330	ND	NR	20



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

3,3'-Dichlorobenzidine	ND	660		ND	NR			20	
3-Nitroaniline	ND	1600		ND	NR			20	
4,6-Dinitro-2-methylphenol	ND	1600		ND	NR			20	
4-Bromophenyl-phenylether	ND	330		ND	NR			20	
4-Chloro-3-methylphenol	ND	660		ND	NR			20	
4-Chloroaniline	ND	660		ND	NR			20	
4-Chlorophenyl-phenylether	ND	330		ND	NR			20	
4-Methylphenol	ND	330		ND	NR			20	
4-Nitroaniline	ND	1600		ND	NR			20	
4-Nitrophenol	ND	330		ND	NR			20	
Acenaphthene	ND	330		ND	NR			20	
Acenaphthylene	ND	330		ND	NR			20	
Anthracene	ND	330		ND	NR			20	
Benzidine (M)	ND	1600		ND	NR			20	
Benzo(a)anthracene	ND	330		ND	NR			20	
Benzo(a)pyrene	ND	330		ND	NR			20	
Benzo(b)fluoranthene	ND	330		ND	NR			20	
Benzo(g,h,i)perylene	ND	330		ND	NR			20	
Benzo(k)fluoranthene	ND	330		ND	NR			20	
Benzoic acid	ND	1600		ND	NR			20	
Benzyl alcohol	ND	660		ND	NR			20	
bis(2-chloroethoxy)methane	ND	330		ND	NR			20	
bis(2-Chloroethyl)ether	ND	330		ND	NR			20	
bis(2-chloroisopropyl)ether	ND	330		ND	NR			20	
bis(2-ethylhexyl)phthalate	ND	330		ND	NR			20	
Butylbenzylphthalate	ND	330		ND	NR			20	
Chrysene	ND	330		ND	NR			20	
Di-n-butylphthalate	ND	330		ND	NR			20	
Di-n-octylphthalate	ND	330		ND	NR			20	
Dibenz(a,h)anthracene	ND	330		ND	NR			20	
Dibenzofuran	ND	330		ND	NR			20	
Diethyl phthalate	ND	330		ND	NR			20	
Dimethyl phthalate	ND	330		ND	NR			20	
Fluoranthene	ND	330		ND	NR			20	
Fluorene	ND	330		ND	NR			20	
Hexachlorobenzene	ND	330		ND	NR			20	
Hexachlorobutadiene	ND	660		ND	NR			20	
Hexachlorocyclopentadiene	ND	660		ND	NR			20	
Hexachloroethane	ND	330		ND	NR			20	
Indeno(1,2,3-cd)pyrene	ND	330		ND	NR			20	
Isophorone	ND	330		ND	NR			20	
N-Nitroso-di-n propylamine	ND	330		ND	NR			20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

N-Nitrosodiphenylamine	ND	330		ND	NR			20	
Naphthalene	ND	330		ND	NR			20	
Nitrobenzene	ND	330		ND	NR			20	
Pentachlorophenol	ND	1600		ND	NR			20	
Phenanthrene	ND	330		ND	NR			20	
Phenol	ND	330		ND	NR			20	
Pyrene	ND	330		ND	NR			20	
Pyridine	ND	1600		ND	NR			20	

Surrogate: 1,2-Dichlorobenzene-d4	2426		3333.33		72.8	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2846		3333.33		85.4	12 - 129			
Surrogate: 2-Chlorophenol-d4	2400		3333.33		72.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2547		3333.33		76.4	25 - 116			
Surrogate: 2-Fluorophenol	2190		3333.33		65.7	32 - 101			
Surrogate: 4-Terphenyl-d14	3131		3333.33		93.9	34 - 125			
Surrogate: Nitrobenzene-d5	2454		3333.33		73.6	30 - 115			
Surrogate: Phenol-d5	2389		3333.33		71.7	34 - 104			

Matrix Spike (B6K0118-MS1)

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3339.67	330	3333.33	ND	100	53 - 106			
1,2-Dichlorobenzene	3131.00	330	3333.33	ND	93.9	52 - 99			
1,3-Dichlorobenzene	3033.33	330	3333.33	ND	91.0	52 - 98			
1,4-Dichlorobenzene	3040.00	330	3333.33	ND	91.2	48 - 96			
2,4,5-Trichlorophenol	3111.00	330	3333.33	ND	93.3	51 - 138			
2,4,6-Trichlorophenol	2775.00	330	3333.33	ND	83.3	46 - 162			
2,4-Dichlorophenol	2774.67	1600	3333.33	ND	83.2	49 - 141			
2,4-Dimethylphenol	2314.33	330	3333.33	ND	69.4	39 - 138			
2,4-Dinitrophenol	2988.33	1600	3333.33	ND	89.6	4 - 170			
2,4-Dinitrotoluene	3871.33	330	3333.33	ND	116	57 - 132			
2,6-Dinitrotoluene	3761.33	330	3333.33	ND	113	45 - 146			
2-Chloronaphthalene	3528.00	330	3333.33	ND	106	59 - 115			
2-Chlorophenol	2307.67	330	3333.33	ND	69.2	46 - 126			
2-Methylnaphthalene	3533.67	330	3333.33	ND	106	58 - 116			
2-Methylphenol	2531.67	330	3333.33	ND	76.0	50 - 112			
2-Nitroaniline	1942.00	1600	3333.33	ND	58.3	44 - 156			
2-Nitrophenol	2668.67	330	3333.33	ND	80.1	39 - 153			
3,3'-Dichlorobenzidine	2873.67	660	3333.33	ND	86.2	24 - 165			
3-Nitroaniline	2063.00	1600	3333.33	ND	61.9	47 - 135			
4,6-Dinitro-2-methylphenol	3240.67	1600	3333.33	ND	97.2	17 - 199			
4-Bromophenyl-phenylether	3142.67	330	3333.33	ND	94.3	57 - 119			
4-Chloro-3-methylphenol	2959.00	660	3333.33	ND	88.8	47 - 157			
4-Chloroaniline	1733.33	660	3333.33	ND	52.0	42 - 120			



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Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

4-Chlorophenyl-phenylether	2950.33	330	3333.33	ND	88.5	56 - 116			
4-Methylphenol	2880.67	330	3333.33	ND	86.4	52 - 119			
4-Nitroaniline	2122.33	1600	3333.33	ND	63.7	41 - 153			
4-Nitrophenol	3076.33	330	3333.33	ND	92.3	31 - 186			
Acenaphthene	2659.67	330	3333.33	ND	79.8	46 - 119			
Acenaphthylene	2688.00	330	3333.33	ND	80.6	51 - 114			
Anthracene	2930.00	330	3333.33	ND	87.9	55 - 126			
Benzidine (M)	2711.33	1600	3333.33	ND	81.3	0 - 179			
Benzo(a)anthracene	2947.67	330	3333.33	ND	88.4	52 - 120			
Benzo(a)pyrene	2772.33	330	3333.33	ND	83.2	52 - 129			
Benzo(b)fluoranthene	3021.00	330	3333.33	ND	90.6	49 - 128			
Benzo(g,h,i)perylene	2923.33	330	3333.33	ND	87.7	45 - 123			
Benzo(k)fluoranthene	2933.33	330	3333.33	ND	88.0	44 - 127			
Benzoic acid	2122.00	1600	3333.33	ND	63.7	0 - 159			
Benzyl alcohol	3561.67	660	3333.33	ND	107	53 - 124			
bis(2-chloroethoxy)methane	2572.67	330	3333.33	ND	77.2	47 - 105			
bis(2-Chloroethyl)ether	2558.33	330	3333.33	ND	76.8	49 - 101			
bis(2-chloroisopropyl)ether	2404.33	330	3333.33	ND	72.1	30 - 122			
bis(2-ethylhexyl)phthalate	2780.00	330	3333.33	ND	83.4	37 - 153			
Butylbenzylphthalate	2964.00	330	3333.33	ND	88.9	49 - 151			
Chrysene	3010.33	330	3333.33	ND	90.3	50 - 119			
Di-n-butylphthalate	3271.67	330	3333.33	ND	98.2	55 - 138			
Di-n-octylphthalate	2792.33	330	3333.33	ND	83.8	46 - 153			
Dibenz(a,h)anthracene	2656.33	330	3333.33	ND	79.7	42 - 139			
Dibenzofuran	3670.33	330	3333.33	ND	110	56 - 125			
Diethyl phthalate	3120.00	330	3333.33	ND	93.6	60 - 126			
Dimethyl phthalate	3042.67	330	3333.33	ND	91.3	58 - 123			
Fluoranthene	3046.67	330	3333.33	ND	91.4	53 - 121			
Fluorene	2839.33	330	3333.33	ND	85.2	49 - 120			
Hexachlorobenzene	3975.67	330	3333.33	ND	119	60 - 119			M2
Hexachlorobutadiene	2900.67	660	3333.33	ND	87.0	48 - 98			
Hexachlorocyclopentadiene	3638.33	660	3333.33	ND	109	33 - 123			
Hexachloroethane	3039.33	330	3333.33	ND	91.2	52 - 103			
Indeno(1,2,3-cd)pyrene	2756.67	330	3333.33	ND	82.7	47 - 141			
Isophorone	2727.67	330	3333.33	ND	81.8	43 - 117			
N-Nitroso-di-n propylamine	2662.00	330	3333.33	ND	79.9	43 - 125			
N-Nitrosodiphenylamine	3227.67	330	3333.33	ND	96.8	49 - 142			
Naphthalene	2593.00	330	3333.33	ND	77.8	41 - 111			
Nitrobenzene	3288.67	330	3333.33	ND	98.7	55 - 114			
Pentachlorophenol	3916.00	1600	3333.33	ND	117	40 - 163			
Phenanthrene	2947.67	330	3333.33	ND	88.4	49 - 125			
Phenol	2392.00	330	3333.33	ND	71.8	43 - 134			



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Report To : John Nordenstam

Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

Pyrene	3099.67	330	3333.33	ND	93.0	52 - 124			
Pyridine	2219.67	1600	3333.33	ND	66.6	31 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2304		3333.33		69.1	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2970		3333.33		89.1	12 - 129			
Surrogate: 2-Chlorophenol-d4	2299		3333.33		69.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2524		3333.33		75.7	25 - 116			
Surrogate: 2-Fluorophenol	2088		3333.33		62.6	32 - 101			
Surrogate: 4-Terphenyl-d14	2818		3333.33		84.5	34 - 125			
Surrogate: Nitrobenzene-d5	2392		3333.33		71.8	30 - 115			
Surrogate: Phenol-d5	2329		3333.33		69.9	34 - 104			

Matrix Spike (B6K0118-MS2)

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3512.67	330	3333.33	ND	105	53 - 106			
1,2-Dichlorobenzene	3290.00	330	3333.33	ND	98.7	52 - 99			
1,3-Dichlorobenzene	3143.00	330	3333.33	ND	94.3	52 - 98			
1,4-Dichlorobenzene	3173.00	330	3333.33	ND	95.2	48 - 96			
2,4,5-Trichlorophenol	3132.33	330	3333.33	ND	94.0	51 - 138			
2,4,6-Trichlorophenol	2840.00	330	3333.33	ND	85.2	46 - 162			
2,4-Dichlorophenol	2894.67	1600	3333.33	ND	86.8	49 - 141			
2,4-Dimethylphenol	2542.00	330	3333.33	ND	76.3	39 - 138			
2,4-Dinitrophenol	2722.67	1600	3333.33	ND	81.7	4 - 170			
2,4-Dinitrotoluene	3809.33	330	3333.33	ND	114	57 - 132			
2,6-Dinitrotoluene	3808.00	330	3333.33	ND	114	45 - 146			
2-Chloronaphthalene	3649.67	330	3333.33	ND	109	59 - 115			
2-Chlorophenol	2398.67	330	3333.33	ND	72.0	46 - 126			
2-Methylnaphthalene	3693.67	330	3333.33	ND	111	58 - 116			
2-Methylphenol	2663.67	330	3333.33	ND	79.9	50 - 112			
2-Nitroaniline	1945.00	1600	3333.33	ND	58.4	44 - 156			
2-Nitrophenol	2840.33	330	3333.33	ND	85.2	39 - 153			
3,3'-Dichlorobenzidine	2975.33	660	3333.33	ND	89.3	24 - 165			
3-Nitroaniline	2037.33	1600	3333.33	ND	61.1	47 - 135			
4,6-Dinitro-2-methylphenol	3286.67	1600	3333.33	ND	98.6	17 - 199			
4-Bromophenyl-phenylether	3154.00	330	3333.33	ND	94.6	57 - 119			
4-Chloro-3-methylphenol	3044.33	660	3333.33	ND	91.3	47 - 157			
4-Chloroaniline	1827.67	660	3333.33	ND	54.8	42 - 120			
4-Chlorophenyl-phenylether	2957.67	330	3333.33	ND	88.7	56 - 116			
4-Methylphenol	3032.33	330	3333.33	ND	91.0	52 - 119			
4-Nitroaniline	2069.67	1600	3333.33	ND	62.1	41 - 153			
4-Nitrophenol	2898.00	330	3333.33	ND	86.9	31 - 186			
Acenaphthene	2690.33	330	3333.33	ND	80.7	46 - 119			
Acenaphthylene	2741.00	330	3333.33	ND	82.2	51 - 114			



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Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

Anthracene	2914.33	330	3333.33	ND	87.4	55 - 126			
Benzidine (M)	3217.33	1600	3333.33	ND	96.5	0 - 179			
Benzo(a)anthracene	2964.33	330	3333.33	ND	88.9	52 - 120			
Benzo(a)pyrene	2818.00	330	3333.33	ND	84.5	52 - 129			
Benzo(b)fluoranthene	2891.67	330	3333.33	ND	86.8	49 - 128			
Benzo(g,h,i)perylene	2880.33	330	3333.33	ND	86.4	45 - 123			
Benzo(k)fluoranthene	3105.33	330	3333.33	ND	93.2	44 - 127			
Benzoic acid	1916.33	1600	3333.33	ND	57.5	0 - 159			
Benzyl alcohol	3769.33	660	3333.33	ND	113	53 - 124			
bis(2-chloroethoxy)methane	2666.00	330	3333.33	ND	80.0	47 - 105			
bis(2-Chloroethyl)ether	2729.00	330	3333.33	ND	81.9	49 - 101			
bis(2-chloroisopropyl)ether	2523.00	330	3333.33	ND	75.7	30 - 122			
bis(2-ethylhexyl)phthalate	2773.67	330	3333.33	ND	83.2	37 - 153			
Butylbenzylphthalate	2974.33	330	3333.33	ND	89.2	49 - 151			
Chrysene	3002.67	330	3333.33	ND	90.1	50 - 119			
Di-n-butylphthalate	3229.00	330	3333.33	ND	96.9	55 - 138			
Di-n-octylphthalate	2805.33	330	3333.33	ND	84.2	46 - 153			
Dibenz(a,h)anthracene	2657.33	330	3333.33	ND	79.7	42 - 139			
Dibenzofuran	3695.33	330	3333.33	ND	111	56 - 125			
Diethyl phthalate	3101.67	330	3333.33	ND	93.1	60 - 126			
Dimethyl phthalate	3062.33	330	3333.33	ND	91.9	58 - 123			
Fluoranthene	3039.67	330	3333.33	ND	91.2	53 - 121			
Fluorene	2817.00	330	3333.33	ND	84.5	49 - 120			
Hexachlorobenzene	4041.00	330	3333.33	ND	121	60 - 119			M2
Hexachlorobutadiene	3058.00	660	3333.33	ND	91.7	48 - 98			
Hexachlorocyclopentadiene	3694.33	660	3333.33	ND	111	33 - 123			
Hexachloroethane	3160.33	330	3333.33	ND	94.8	52 - 103			
Indeno(1,2,3-cd)pyrene	2731.00	330	3333.33	ND	81.9	47 - 141			
Isophorone	2918.67	330	3333.33	ND	87.6	43 - 117			
N-Nitroso-di-n propylamine	2861.33	330	3333.33	ND	85.8	43 - 125			
N-Nitrosodiphenylamine	3244.00	330	3333.33	ND	97.3	49 - 142			
Naphthalene	2706.00	330	3333.33	ND	81.2	41 - 111			
Nitrobenzene	3516.33	330	3333.33	ND	105	55 - 114			
Pentachlorophenol	4210.00	1600	3333.33	ND	126	40 - 163			
Phenanthrene	2919.33	330	3333.33	ND	87.6	49 - 125			
Phenol	2528.33	330	3333.33	ND	75.8	43 - 134			
Pyrene	3092.00	330	3333.33	ND	92.8	52 - 124			
Pyridine	2254.67	1600	3333.33	ND	67.6	31 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2412		3333.33		72.4	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2918		3333.33		87.6	12 - 129			
Surrogate: 2-Chlorophenol-d4	2413		3333.33		72.4	34 - 102			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

Surrogate: 2-Fluorobiphenyl	2602		3333.33		78.1	25 - 116			
Surrogate: 2-Fluorophenol	2230		3333.33		66.9	32 - 101			
Surrogate: 4-Terphenyl-d14	2822		3333.33		84.7	34 - 125			
Surrogate: Nitrobenzene-d5	2549		3333.33		76.5	30 - 115			
Surrogate: Phenol-d5	2447		3333.33		73.4	34 - 104			

Matrix Spike Dup (B6K0118-MSD1)

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3388.00	330	3333.33	ND	102	53 - 106	1.44	20	
1,2-Dichlorobenzene	3124.67	330	3333.33	ND	93.7	52 - 99	0.202	20	
1,3-Dichlorobenzene	3034.67	330	3333.33	ND	91.0	52 - 98	0.0440	20	
1,4-Dichlorobenzene	3044.67	330	3333.33	ND	91.3	48 - 96	0.153	20	
2,4,5-Trichlorophenol	3144.67	330	3333.33	ND	94.3	51 - 138	1.08	20	
2,4,6-Trichlorophenol	2828.00	330	3333.33	ND	84.8	46 - 162	1.89	20	
2,4-Dichlorophenol	2773.67	1600	3333.33	ND	83.2	49 - 141	0.0360	20	
2,4-Dimethylphenol	2344.00	330	3333.33	ND	70.3	39 - 138	1.27	20	
2,4-Dinitrophenol	3091.00	1600	3333.33	ND	92.7	4 - 170	3.38	20	
2,4-Dinitrotoluene	3801.33	330	3333.33	ND	114	57 - 132	1.82	20	
2,6-Dinitrotoluene	3753.00	330	3333.33	ND	113	45 - 146	0.222	20	
2-Chloronaphthalene	3595.33	330	3333.33	ND	108	59 - 115	1.89	20	
2-Chlorophenol	2324.33	330	3333.33	ND	69.7	46 - 126	0.720	20	
2-Methylnaphthalene	3509.67	330	3333.33	ND	105	58 - 116	0.681	20	
2-Methylphenol	2522.00	330	3333.33	ND	75.7	50 - 112	0.383	20	
2-Nitroaniline	1946.00	1600	3333.33	ND	58.4	44 - 156	0.206	20	
2-Nitrophenol	2666.33	330	3333.33	ND	80.0	39 - 153	0.0875	20	
3,3'-Dichlorobenzidine	2914.67	660	3333.33	ND	87.4	24 - 165	1.42	20	
3-Nitroaniline	2031.33	1600	3333.33	ND	60.9	47 - 135	1.55	20	
4,6-Dinitro-2-methylphenol	3298.67	1600	3333.33	ND	99.0	17 - 199	1.77	20	
4-Bromophenyl-phenylether	3193.00	330	3333.33	ND	95.8	57 - 119	1.59	20	
4-Chloro-3-methylphenol	2902.33	660	3333.33	ND	87.1	47 - 157	1.93	20	
4-Chloroaniline	1725.67	660	3333.33	ND	51.8	42 - 120	0.443	20	
4-Chlorophenyl-phenylether	2951.00	330	3333.33	ND	88.5	56 - 116	0.0226	20	
4-Methylphenol	2856.33	330	3333.33	ND	85.7	52 - 119	0.848	20	
4-Nitroaniline	2049.33	1600	3333.33	ND	61.5	41 - 153	3.50	20	
4-Nitrophenol	2974.33	330	3333.33	ND	89.2	31 - 186	3.37	20	
Acenaphthene	2621.00	330	3333.33	ND	78.6	46 - 119	1.46	20	
Acenaphthylene	2709.00	330	3333.33	ND	81.3	51 - 114	0.778	20	
Anthracene	2912.00	330	3333.33	ND	87.4	55 - 126	0.616	20	
Benzidine (M)	2812.67	1600	3333.33	ND	84.4	0 - 179	3.67	20	
Benzo(a)anthracene	2970.00	330	3333.33	ND	89.1	52 - 120	0.755	20	
Benzo(a)pyrene	2779.67	330	3333.33	ND	83.4	52 - 129	0.264	20	
Benzo(b)fluoranthene	3042.00	330	3333.33	ND	91.3	49 - 128	0.693	20	
Benzo(g,h,i)perylene	2913.67	330	3333.33	ND	87.4	45 - 123	0.331	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike Dup (B6K0118-MSD1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

Benzo(k)fluoranthene	2932.00	330	3333.33	ND	88.0	44 - 127	0.0455	20	
Benzoic acid	2581.33	1600	3333.33	ND	77.4	0 - 159	19.5	20	
Benzyl alcohol	3584.67	660	3333.33	ND	108	53 - 124	0.644	20	
bis(2-chloroethoxy)methane	2533.67	330	3333.33	ND	76.0	47 - 105	1.53	20	
bis(2-Chloroethyl)ether	2583.33	330	3333.33	ND	77.5	49 - 101	0.972	20	
bis(2-chloroisopropyl)ether	2388.33	330	3333.33	ND	71.6	30 - 122	0.668	20	
bis(2-ethylhexyl)phthalate	2830.67	330	3333.33	ND	84.9	37 - 153	1.81	20	
Butylbenzylphthalate	2965.00	330	3333.33	ND	89.0	49 - 151	0.0337	20	
Chrysene	3004.67	330	3333.33	ND	90.1	50 - 119	0.188	20	
Di-n-butylphthalate	3263.00	330	3333.33	ND	97.9	55 - 138	0.265	20	
Di-n-octylphthalate	2800.67	330	3333.33	ND	84.0	46 - 153	0.298	20	
Dibenz(a,h)anthracene	2687.67	330	3333.33	ND	80.6	42 - 139	1.17	20	
Dibenzofuran	3627.00	330	3333.33	ND	109	56 - 125	1.19	20	
Diethyl phthalate	3100.33	330	3333.33	ND	93.0	60 - 126	0.632	20	
Dimethyl phthalate	3007.67	330	3333.33	ND	90.2	58 - 123	1.16	20	
Fluoranthene	3080.33	330	3333.33	ND	92.4	53 - 121	1.10	20	
Fluorene	2785.00	330	3333.33	ND	83.6	49 - 120	1.93	20	
Hexachlorobenzene	4032.00	330	3333.33	ND	121	60 - 119	1.41	20	M2
Hexachlorobutadiene	2907.33	660	3333.33	ND	87.2	48 - 98	0.230	20	
Hexachlorocyclopentadiene	3666.00	660	3333.33	ND	110	33 - 123	0.758	20	
Hexachloroethane	3000.33	330	3333.33	ND	90.0	52 - 103	1.29	20	
Indeno(1,2,3-cd)pyrene	2738.33	330	3333.33	ND	82.2	47 - 141	0.667	20	
Isophorone	2704.67	330	3333.33	ND	81.1	43 - 117	0.847	20	
N-Nitroso-di-n propylamine	2675.33	330	3333.33	ND	80.3	43 - 125	0.500	20	
N-Nitrosodiphenylamine	3250.67	330	3333.33	ND	97.5	49 - 142	0.710	20	
Naphthalene	2563.67	330	3333.33	ND	76.9	41 - 111	1.14	20	
Nitrobenzene	3314.33	330	3333.33	ND	99.4	55 - 114	0.777	20	
Pentachlorophenol	4125.67	1600	3333.33	ND	124	40 - 163	5.21	20	
Phenanthrene	2923.00	330	3333.33	ND	87.7	49 - 125	0.840	20	
Phenol	2414.00	330	3333.33	ND	72.4	43 - 134	0.916	20	
Pyrene	3079.67	330	3333.33	ND	92.4	52 - 124	0.647	20	
Pyridine	2121.00	1600	3333.33	ND	63.6	31 - 90	4.55	20	

Surrogate: 1,2-Dichlorobenzene-d4	2311		3333.33		69.3	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2943		3333.33		88.3	12 - 129			
Surrogate: 2-Chlorophenol-d4	2299		3333.33		69.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2583		3333.33		77.5	25 - 116			
Surrogate: 2-Fluorophenol	2136		3333.33		64.1	32 - 101			
Surrogate: 4-Terphenyl-d14	2851		3333.33		85.5	34 - 125			
Surrogate: Nitrobenzene-d5	2421		3333.33		72.6	30 - 115			
Surrogate: Phenol-d5	2329		3333.33		69.9	34 - 104			

Matrix Spike Dup (B6K0118-MSD2)

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K0118 - MSSEMI_S (continued)									
1,2,4-Trichlorobenzene	3445.33	330	3333.33	ND	103	53 - 106	1.94	20	
1,2-Dichlorobenzene	3142.33	330	3333.33	ND	94.3	52 - 99	4.59	20	
1,3-Dichlorobenzene	3125.33	330	3333.33	ND	93.8	52 - 98	0.564	20	
1,4-Dichlorobenzene	3145.00	330	3333.33	ND	94.4	48 - 96	0.886	20	
2,4,5-Trichlorophenol	3091.33	330	3333.33	ND	92.7	51 - 138	1.32	20	
2,4,6-Trichlorophenol	2771.00	330	3333.33	ND	83.1	46 - 162	2.46	20	
2,4-Dichlorophenol	2859.33	1600	3333.33	ND	85.8	49 - 141	1.23	20	
2,4-Dimethylphenol	2400.00	330	3333.33	ND	72.0	39 - 138	5.75	20	
2,4-Dinitrophenol	2562.33	1600	3333.33	ND	76.9	4 - 170	6.07	20	
2,4-Dinitrotoluene	3768.67	330	3333.33	ND	113	57 - 132	1.07	20	
2,6-Dinitrotoluene	3691.00	330	3333.33	ND	111	45 - 146	3.12	20	
2-Chloronaphthalene	3546.67	330	3333.33	ND	106	59 - 115	2.86	20	
2-Chlorophenol	2365.33	330	3333.33	ND	71.0	46 - 126	1.40	20	
2-Methylnaphthalene	3614.33	330	3333.33	ND	108	58 - 116	2.17	20	
2-Methylphenol	2640.33	330	3333.33	ND	79.2	50 - 112	0.880	20	
2-Nitroaniline	1938.00	1600	3333.33	ND	58.1	44 - 156	0.361	20	
2-Nitrophenol	2797.67	330	3333.33	ND	83.9	39 - 153	1.51	20	
3,3'-Dichlorobenzidine	2875.33	660	3333.33	ND	86.3	24 - 165	3.42	20	
3-Nitroaniline	2024.67	1600	3333.33	ND	60.7	47 - 135	0.624	20	
4,6-Dinitro-2-methylphenol	3190.00	1600	3333.33	ND	95.7	17 - 199	2.99	20	
4-Bromophenyl-phenylether	3150.33	330	3333.33	ND	94.5	57 - 119	0.116	20	
4-Chloro-3-methylphenol	2966.33	660	3333.33	ND	89.0	47 - 157	2.60	20	
4-Chloroaniline	1790.67	660	3333.33	ND	53.7	42 - 120	2.05	20	
4-Chlorophenyl-phenylether	2943.33	330	3333.33	ND	88.3	56 - 116	0.486	20	
4-Methylphenol	2940.33	330	3333.33	ND	88.2	52 - 119	3.08	20	
4-Nitroaniline	2084.67	1600	3333.33	ND	62.5	41 - 153	0.722	20	
4-Nitrophenol	2815.33	330	3333.33	ND	84.5	31 - 186	2.89	20	
Acenaphthene	2641.33	330	3333.33	ND	79.2	46 - 119	1.84	20	
Acenaphthylene	2702.33	330	3333.33	ND	81.1	51 - 114	1.42	20	
Anthracene	2906.67	330	3333.33	ND	87.2	55 - 126	0.263	20	
Benzidine (M)	2756.00	1600	3333.33	ND	82.7	0 - 179	15.4	20	
Benzo(a)anthracene	2900.33	330	3333.33	ND	87.0	52 - 120	2.18	20	
Benzo(a)pyrene	2809.67	330	3333.33	ND	84.3	52 - 129	0.296	20	
Benzo(b)fluoranthene	2933.67	330	3333.33	ND	88.0	49 - 128	1.44	20	
Benzo(g,h,i)perylene	2898.33	330	3333.33	ND	87.0	45 - 123	0.623	20	
Benzo(k)fluoranthene	3175.00	330	3333.33	ND	95.3	44 - 127	2.22	20	
Benzoic acid	1956.00	1600	3333.33	ND	58.7	0 - 159	2.05	20	
Benzyl alcohol	3673.33	660	3333.33	ND	110	53 - 124	2.58	20	
bis(2-chloroethoxy)methane	2621.67	330	3333.33	ND	78.7	47 - 105	1.68	20	
bis(2-Chloroethyl)ether	2654.67	330	3333.33	ND	79.6	49 - 101	2.76	20	
bis(2-chloroisopropyl)ether	2464.33	330	3333.33	ND	73.9	30 - 122	2.35	20	
bis(2-ethylhexyl)phthalate	2730.67	330	3333.33	ND	81.9	37 - 153	1.56	20	
Butylbenzylphthalate	2898.00	330	3333.33	ND	86.9	49 - 151	2.60	20	



Certificate of Analysis

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9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/08/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike Dup (B6K0118-MSD2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

Chrysene	2935.67	330	3333.33	ND	88.1	50 - 119	2.26	20	
Di-n-butylphthalate	3214.00	330	3333.33	ND	96.4	55 - 138	0.466	20	
Di-n-octylphthalate	2799.33	330	3333.33	ND	84.0	46 - 153	0.214	20	
Dibenz(a,h)anthracene	2690.00	330	3333.33	ND	80.7	42 - 139	1.22	20	
Dibenzofuran	3591.67	330	3333.33	ND	108	56 - 125	2.85	20	
Diethyl phthalate	3031.67	330	3333.33	ND	91.0	60 - 126	2.28	20	
Dimethyl phthalate	2980.67	330	3333.33	ND	89.4	58 - 123	2.70	20	
Fluoranthene	3029.67	330	3333.33	ND	90.9	53 - 121	0.330	20	
Fluorene	2783.67	330	3333.33	ND	83.5	49 - 120	1.19	20	
Hexachlorobenzene	3997.33	330	3333.33	ND	120	60 - 119	1.09	20	M2
Hexachlorobutadiene	2982.67	660	3333.33	ND	89.5	48 - 98	2.49	20	
Hexachlorocyclopentadiene	3670.00	660	3333.33	ND	110	33 - 123	0.661	20	
Hexachloroethane	3062.67	330	3333.33	ND	91.9	52 - 103	3.14	20	
Indeno(1,2,3-cd)pyrene	2749.67	330	3333.33	ND	82.5	47 - 141	0.681	20	
Isophorone	2796.00	330	3333.33	ND	83.9	43 - 117	4.29	20	
N-Nitroso-di-n propylamine	2713.67	330	3333.33	ND	81.4	43 - 125	5.30	20	
N-Nitrosodiphenylamine	3231.00	330	3333.33	ND	96.9	49 - 142	0.402	20	
Naphthalene	2667.33	330	3333.33	ND	80.0	41 - 111	1.44	20	
Nitrobenzene	3387.67	330	3333.33	ND	102	55 - 114	3.73	20	
Pentachlorophenol	4159.00	1600	3333.33	ND	125	40 - 163	1.22	20	
Phenanthrene	2943.00	330	3333.33	ND	88.3	49 - 125	0.807	20	
Phenol	2483.00	330	3333.33	ND	74.5	43 - 134	1.81	20	
Pyrene	3124.67	330	3333.33	ND	93.7	52 - 124	1.05	20	
Pyridine	2216.33	1600	3333.33	ND	66.5	31 - 90	1.71	20	
Surrogate: 1,2-Dichlorobenzene-d4	2351		3333.33		70.5	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2874		3333.33		86.2	12 - 129			
Surrogate: 2-Chlorophenol-d4	2335		3333.33		70.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2589		3333.33		77.7	25 - 116			
Surrogate: 2-Fluorophenol	2159		3333.33		64.8	32 - 101			
Surrogate: 4-Terphenyl-d14	2742		3333.33		82.3	34 - 125			
Surrogate: Nitrobenzene-d5	2498		3333.33		75.0	30 - 115			
Surrogate: Phenol-d5	2397		3333.33		71.9	34 - 104			



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page ____ of ____

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt	
	Condition	Y N
<input checked="" type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
	2. HEADSPACE (VOA)	<input type="checkbox"/> Y <input type="checkbox"/> N
	3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
	4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

1. ATL
2. OnTrac
3. PRESERVED
4. COOLER TEMP. deg. C: 6.3

Company: **TRC** Address: _____ Tel: _____
City: _____ State: _____ Zip: _____
Attn: _____ Email: _____
Company: **JOHN NORDENSTAM**
Address: **9685 RESEARCH DR**
City: **IRVINE** State: **CA** Zip: **92618**

Project Name: **ROOSEVELT HS** Quote No.: _____
Project No.: **265642** PO #: _____
Sampler: _____

ITEM	Lab No.	Sample Description		Date	Time	Encircle or Write Requested Analysis										Encircle Sample Matrix					Container		QA/QC
		Sample ID / Location				8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	6010 / 7000 (Title 22 Metals)	TO-15	TAT	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL		Type: 1-Tube, 2-VOA, 3-Liter, 4-Pint, 5-Jar, 6-Teddy, 7-Canister	Material: 1-Glass, 2-Plastic, 3-Metal	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-AC, 5-Zn (Ac)2, 6-NaOH, 7-Na2S2O3	
1	1603730-1	FILL 2-2.0-2.5		10/22/16	0740									X						1	2		
2	-2	FILL 2-5.0-5.5			0745									X						1	2		
3	-3	FILL 2-10.0-10.5			0750									X						7	1/2		
4	-4	FILL 2-13.5-14.0			0800									X						1	2		
5	-5	FILL 1-2.0-2.5			0840									X						1	2		
6	-6	FILL 1-5.0-5.5			0900									X						7	1/2		
7	-7	FILL 1-9.5-10.0			0907									X						1	2		
8	-8	EB-WF-10-22-16			0920									X						1	2		
9																							
10																							

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: (Signature and Printed Name) **John Nordenstam** Date: **10/22/16** Time: **1830**
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Submitter Print Name _____ Signature _____

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Tuesday, October 25, 2016 2:19 PM
To: Carmen Aguila; Nordenstam, John
Cc: Rachelle Arada; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS, 265642

Carmen,

Responses to your questions are provided below in red text. Please let me know if you have any additional questions.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 | F: 949.727.7311 | C: 949.244.8143

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From: Carmen Aguila [<mailto:Carmen@atlglobal.com>]
Sent: Tuesday, October 25, 2016 11:31 AM
To: Nordenstam, John <jnordenstam@trcsolutions.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>
Cc: Rachelle Arada <Rachelle@atlglobal.com>; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS, 265642

Hi Jeff/John,

The following were noted for the samples received last weekend:

1603732

- 2-voa vials for trip blank were received, but is not indicated on the CoC. **These samples were mistakenly not included on the CoC. Please analyze the trip blank for TPH-G and VOCs using EPA Methods 8015 and 8260B, respectively.**

1603730

- 3-voa vials for trip blank were received, but is not indicated on the CoC. **These samples were mistakenly not included on the CoC. Please analyze the trip blank for TPH-G and VOCs using EPA Methods 8015 and 8260B, respectively.**
- No sample received for FILL1-2.0-2.5 @840, but received 2-4oz jar labeled FILL 2- 2.0-2.5 @840. **The jars are labeled incorrectly; the two 4-oz jars that were collected at 8:40 a.m. should be labeled FILL 1-2.0-2.5 @ 840**
- Please provide sampler's name **The sampler's name is Ross Surrency.**

Please advise. Attached are copies of the CoC received.

Thank you,

Carmen Aguila

Sample Control



Advanced Technology Laboratories

www.atlglobal.com

Tel: (562) 989-4045 ext. 245

Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Friday, October 28, 2016 8:48 AM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Clarification for FILL 1 and FILL 2 Sample Analyses

Rachelle,

Please note the following changes for the FILL 1 and FILL 2 samples submitted on October 22, 2016. The chain of custody record incorrectly specified the analyses for the FILL samples. The corrections requested are shown below.

- **FILL 1-5.0-5.5** to be analyzed for TPH-gas (EPA 8015B) and VOCs (EPA 8260B)
- **FILL 2-10.0-10.5** to be analyzed for TPH-gas (EPA 8015B) and VOCs (EPA 8260B)

Remaining analyses are to be composite samples from the FILL 1 and FILL 2 sample locations as follows:

- **Composite 1:** composite FILL 1-2.0-2.5, FILL 1-5.0-5.5, and FILL 1-10-10.5 and analyze for TPH carbon chain (EPA 8015), SVOCs (EPA 8270C), PCBs (EPA 8082), OCPs (EPA 8081), and CAM Metals (EPA 6010/7000)
- **Composite 2:** composite FILL 2-2.0-2.5, FILL 2-5.0-5.5, FILL 2-10-10.5, and FILL 2-13.4-14.0 and analyze for TPH carbon chain (EPA 8015), SVOCs (EPA 8270C), PCBs (EPA 8082), OCPs (EPA 8081), and CAM Metals (EPA 6010/7000)

Please call me to discuss if you have any questions.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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November 07, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603732
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on October 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CL1-1-0.5-1.0	1603732-01	Soil	10/22/16 10:40	10/22/16 18:30
CL1-1-2.0-2.5	1603732-02	Soil	10/22/16 10:45	10/22/16 18:30
CL1-1-5.0-5.5	1603732-03	Soil	10/22/16 10:50	10/22/16 18:30
CL1-1-9.5-10.0	1603732-04	Soil	10/22/16 11:20	10/22/16 18:30
CL1-2-0.5-1.0	1603732-05	Soil	10/22/16 11:40	10/22/16 18:30
CL1-2-2.0-2.5	1603732-06	Soil	10/22/16 11:45	10/22/16 18:30
CL1-2-5.0-5.5	1603732-07	Soil	10/22/16 11:50	10/22/16 18:30
CL1-2-5.5-10.0	1603732-08	Soil	10/22/16 11:55	10/22/16 18:30
EB-CL-10-22-16	1603732-09	Water	10/22/16 12:10	10/22/16 18:30
Trip Blank	1603732-10	Water	10/22/16 0:00	10/22/16 18:30
CL1-2-5.0-5.5 Duplicate	1603732-11	Soil	10/22/16 11:50	10/22/16 18:30

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-0.5-1.0

Lab ID: 1603732-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:33	
Arsenic	1.8	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:33	
Barium	61	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:33	
Beryllium	0.35	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:33	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:33	
Chromium	11	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:33	
Cobalt	4.0	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:33	
Copper	5.8	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:33	
Lead	2.4	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:33	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:33	
Nickel	6.4	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:33	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:33	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:33	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:33	
Vanadium	26	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:33	
Zinc	17	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:33	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 14:52	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	ND	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 13:11	
C23-C36	ND	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 13:11	
Surrogate: <i>p</i> -Terphenyl	77.0 %		18 - 130		B6J0780	10/27/2016	10/28/16 13:11	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-0.5-1.0

Lab ID: 1603732-01

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.5	0.56	1	B6J0781	10/28/2016	10/28/16 13:38	
1,1,1-Trichloroethane	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 13:38	
1,1,2,2-Tetrachloroethane	ND	4.5	0.82	1	B6J0781	10/28/2016	10/28/16 13:38	
1,1,2-Trichloroethane	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 13:38	
1,1-Dichloroethane	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 13:38	
1,1-Dichloroethene	ND	4.5	0.62	1	B6J0781	10/28/2016	10/28/16 13:38	
1,1-Dichloropropene	ND	4.5	2.2	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2,3-Trichloropropane	ND	4.5	1.1	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2,3-Trichlorobenzene	ND	4.5	0.95	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2,4-Trichlorobenzene	ND	4.5	0.86	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2,4-Trimethylbenzene	ND	4.5	0.48	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2-Dibromo-3-chloropropane	ND	8.9	1.0	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2-Dibromoethane	ND	4.5	0.71	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2-Dichlorobenzene	ND	4.5	0.46	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2-Dichloroethane	ND	4.5	0.47	1	B6J0781	10/28/2016	10/28/16 13:38	
1,2-Dichloropropane	ND	4.5	0.68	1	B6J0781	10/28/2016	10/28/16 13:38	
1,3,5-Trimethylbenzene	ND	4.5	0.52	1	B6J0781	10/28/2016	10/28/16 13:38	
1,3-Dichlorobenzene	ND	4.5	0.56	1	B6J0781	10/28/2016	10/28/16 13:38	
1,3-Dichloropropane	ND	4.5	0.53	1	B6J0781	10/28/2016	10/28/16 13:38	
1,4-Dichlorobenzene	ND	4.5	0.66	1	B6J0781	10/28/2016	10/28/16 13:38	
2,2-Dichloropropane	ND	4.5	0.61	1	B6J0781	10/28/2016	10/28/16 13:38	
2-Chlorotoluene	ND	4.5	0.61	1	B6J0781	10/28/2016	10/28/16 13:38	
4-Chlorotoluene	ND	4.5	0.55	1	B6J0781	10/28/2016	10/28/16 13:38	
4-Isopropyltoluene	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 13:38	
Benzene	ND	4.5	0.53	1	B6J0781	10/28/2016	10/28/16 13:38	
Bromobenzene	ND	4.5	1.7	1	B6J0781	10/28/2016	10/28/16 13:38	
Bromochloromethane	ND	4.5	2.8	1	B6J0781	10/28/2016	10/28/16 13:38	
Bromodichloromethane	ND	4.5	0.90	1	B6J0781	10/28/2016	10/28/16 13:38	
Bromoform	ND	4.5	0.63	1	B6J0781	10/28/2016	10/28/16 13:38	
Bromomethane	ND	4.5	3.8	1	B6J0781	10/28/2016	10/28/16 13:38	
Carbon disulfide	ND	4.5	1.0	1	B6J0781	10/28/2016	10/28/16 13:38	
Carbon tetrachloride	ND	4.5	0.95	1	B6J0781	10/28/2016	10/28/16 13:38	
Chlorobenzene	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 13:38	
Chloroethane	ND	4.5	1.7	1	B6J0781	10/28/2016	10/28/16 13:38	
Chloroform	ND	4.5	1.2	1	B6J0781	10/28/2016	10/28/16 13:38	
Chloromethane	ND	4.5	1.7	1	B6J0781	10/28/2016	10/28/16 13:38	
cis-1,2-Dichloroethene	ND	4.5	0.78	1	B6J0781	10/28/2016	10/28/16 13:38	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-0.5-1.0

Lab ID: 1603732-01

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	4.5	0.71	1	B6J0781	10/28/2016	10/28/16 13:38	
Di-isopropyl ether	ND	4.5	0.46	1	B6J0781	10/28/2016	10/28/16 13:38	
Dibromochloromethane	ND	4.5	0.90	1	B6J0781	10/28/2016	10/28/16 13:38	
Dibromomethane	ND	4.5	0.89	1	B6J0781	10/28/2016	10/28/16 13:38	
Dichlorodifluoromethane	ND	4.5	2.0	1	B6J0781	10/28/2016	10/28/16 13:38	
Ethyl Acetate	ND	45	8.7	1	B6J0781	10/28/2016	10/28/16 13:38	
Ethyl Ether	ND	45	6.5	1	B6J0781	10/28/2016	10/28/16 13:38	
Ethyl tert-butyl ether	ND	4.5	1.2	1	B6J0781	10/28/2016	10/28/16 13:38	
Ethylbenzene	ND	4.5	0.58	1	B6J0781	10/28/2016	10/28/16 13:38	
Freon-113	ND	4.5	0.94	1	B6J0781	10/28/2016	10/28/16 13:38	
Hexachlorobutadiene	ND	4.5	0.69	1	B6J0781	10/28/2016	10/28/16 13:38	
Isopropylbenzene	ND	4.5	0.53	1	B6J0781	10/28/2016	10/28/16 13:38	
m,p-Xylene	ND	8.9	1.1	1	B6J0781	10/28/2016	10/28/16 13:38	
Methylene chloride	ND	4.5	1.2	1	B6J0781	10/28/2016	10/28/16 13:38	
MTBE	ND	4.5	0.45	1	B6J0781	10/28/2016	10/28/16 13:38	
n-Butylbenzene	ND	4.5	0.67	1	B6J0781	10/28/2016	10/28/16 13:38	
n-Propylbenzene	ND	4.5	0.49	1	B6J0781	10/28/2016	10/28/16 13:38	
Naphthalene	ND	4.5	1.1	1	B6J0781	10/28/2016	10/28/16 13:38	
o-Xylene	ND	4.5	0.77	1	B6J0781	10/28/2016	10/28/16 13:38	
sec-Butylbenzene	ND	4.5	0.71	1	B6J0781	10/28/2016	10/28/16 13:38	
Styrene	ND	4.5	0.74	1	B6J0781	10/28/2016	10/28/16 13:38	
tert-Amyl methyl ether	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 13:38	
tert-Butanol	ND	89	5.3	1	B6J0781	10/28/2016	10/28/16 13:38	
tert-Butylbenzene	ND	4.5	0.51	1	B6J0781	10/28/2016	10/28/16 13:38	
Tetrachloroethene	ND	4.5	0.58	1	B6J0781	10/28/2016	10/28/16 13:38	
Toluene	ND	4.5	0.71	1	B6J0781	10/28/2016	10/28/16 13:38	
trans-1,2-Dichloroethene	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 13:38	
trans-1,3-Dichloropropene	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 13:38	
Trichloroethene	ND	4.5	0.98	1	B6J0781	10/28/2016	10/28/16 13:38	
Trichlorofluoromethane	ND	4.5	0.80	1	B6J0781	10/28/2016	10/28/16 13:38	
Vinyl acetate	ND	45	5.1	1	B6J0781	10/28/2016	10/28/16 13:38	
Vinyl chloride	ND	4.5	1.8	1	B6J0781	10/28/2016	10/28/16 13:38	
Surrogate: 1,2-Dichloroethane-d4	108 %		12 - 186		B6J0781	10/28/2016	10/28/16 13:38	
Surrogate: 4-Bromofluorobenzene	106 %		23 - 162		B6J0781	10/28/2016	10/28/16 13:38	
Surrogate: Dibromofluoromethane	108 %		23 - 179		B6J0781	10/28/2016	10/28/16 13:38	
Surrogate: Toluene-d8	107 %		26 - 164		B6J0781	10/28/2016	10/28/16 13:38	



Certificate of Analysis

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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-1-0.5-1.0

Lab ID: 1603732-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 14:12	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 14:12	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 14:12	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 14:12	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 14:12	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 14:12	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 14:12	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 14:12	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 14:12	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 14:12	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 14:12	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 14:12	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 14:12	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 14:12	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 14:12	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 14:12	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 14:12	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 14:12	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 14:12	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 14:12	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 14:12	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 14:12	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 14:12	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:12	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 14:12	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 14:12	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 14:12	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:12	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 14:12	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 14:12	
Benzidine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 14:12	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 14:12	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 14:12	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 14:12	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 14:12	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 14:12	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 14:12	



Certificate of Analysis

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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-0.5-1.0

Lab ID: 1603732-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 14:12	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 14:12	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 14:12	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 14:12	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6J0735	10/26/2016	10/27/16 14:12	
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 14:12	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 14:12	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 14:12	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:12	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 14:12	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 14:12	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 14:12	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 14:12	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 14:12	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 14:12	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 14:12	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 14:12	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 14:12	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 14:12	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 14:12	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 14:12	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 14:12	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:12	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 14:12	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 14:12	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 14:12	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 14:12	
Phenol	180	330	130	1	B6J0735	10/26/2016	10/27/16 14:12	J
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 14:12	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 14:12	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>73.9 %</i>		<i>22 - 107</i>		B6J0735	10/26/2016	<i>10/27/16 14:12</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>83.9 %</i>		<i>12 - 129</i>		B6J0735	10/26/2016	<i>10/27/16 14:12</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>80.5 %</i>		<i>34 - 102</i>		B6J0735	10/26/2016	<i>10/27/16 14:12</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>83.9 %</i>		<i>25 - 116</i>		B6J0735	10/26/2016	<i>10/27/16 14:12</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>70.5 %</i>		<i>32 - 101</i>		B6J0735	10/26/2016	<i>10/27/16 14:12</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>90.4 %</i>		<i>34 - 125</i>		B6J0735	10/26/2016	<i>10/27/16 14:12</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>85.7 %</i>		<i>30 - 115</i>		B6J0735	10/26/2016	<i>10/27/16 14:12</i>	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-1-0.5-1.0

Lab ID: 1603732-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	77.2 %	34 - 104		B6J0735	10/26/2016	10/27/16 14:12	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-2.0-2.5

Lab ID: 1603732-02

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:37	
Arsenic	1.2	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:37	
Barium	110	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:37	
Beryllium	0.36	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:37	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:37	
Chromium	11	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:37	
Cobalt	5.0	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:37	
Copper	7.4	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:37	
Lead	2.7	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:37	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:37	
Nickel	6.7	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:37	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:37	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:37	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:37	
Vanadium	26	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:37	
Zinc	28	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:37	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 14:58	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.4	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 12:54	
C23-C36	3.6	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 12:54	
Surrogate: p-Terphenyl	60.7 %		18 - 130		B6J0780	10/27/2016	10/28/16 12:54	



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Report To : John Nordenstam
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Client Sample ID CL1-1-2.0-2.5

Lab ID: 1603732-02

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.2	0.66	1	B6J0781	10/28/2016	10/28/16 13:56	
1,1,1-Trichloroethane	ND	5.2	0.66	1	B6J0781	10/28/2016	10/28/16 13:56	
1,1,2,2-Tetrachloroethane	ND	5.2	0.96	1	B6J0781	10/28/2016	10/28/16 13:56	
1,1,2-Trichloroethane	ND	5.2	1.5	1	B6J0781	10/28/2016	10/28/16 13:56	
1,1-Dichloroethane	ND	5.2	1.5	1	B6J0781	10/28/2016	10/28/16 13:56	
1,1-Dichloroethene	ND	5.2	0.72	1	B6J0781	10/28/2016	10/28/16 13:56	
1,1-Dichloropropene	ND	5.2	2.6	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2,3-Trichloropropane	ND	5.2	1.3	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2,3-Trichlorobenzene	ND	5.2	1.1	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2,4-Trichlorobenzene	ND	5.2	1.0	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2,4-Trimethylbenzene	ND	5.2	0.56	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2-Dibromo-3-chloropropane	ND	10	1.2	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2-Dibromoethane	ND	5.2	0.83	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2-Dichlorobenzene	ND	5.2	0.53	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2-Dichloroethane	ND	5.2	0.55	1	B6J0781	10/28/2016	10/28/16 13:56	
1,2-Dichloropropane	ND	5.2	0.80	1	B6J0781	10/28/2016	10/28/16 13:56	
1,3,5-Trimethylbenzene	ND	5.2	0.60	1	B6J0781	10/28/2016	10/28/16 13:56	
1,3-Dichlorobenzene	ND	5.2	0.66	1	B6J0781	10/28/2016	10/28/16 13:56	
1,3-Dichloropropane	ND	5.2	0.62	1	B6J0781	10/28/2016	10/28/16 13:56	
1,4-Dichlorobenzene	ND	5.2	0.77	1	B6J0781	10/28/2016	10/28/16 13:56	
2,2-Dichloropropane	ND	5.2	0.71	1	B6J0781	10/28/2016	10/28/16 13:56	
2-Chlorotoluene	ND	5.2	0.71	1	B6J0781	10/28/2016	10/28/16 13:56	
4-Chlorotoluene	ND	5.2	0.64	1	B6J0781	10/28/2016	10/28/16 13:56	
4-Isopropyltoluene	ND	5.2	0.66	1	B6J0781	10/28/2016	10/28/16 13:56	
Benzene	ND	5.2	0.61	1	B6J0781	10/28/2016	10/28/16 13:56	
Bromobenzene	ND	5.2	2.0	1	B6J0781	10/28/2016	10/28/16 13:56	
Bromochloromethane	ND	5.2	3.3	1	B6J0781	10/28/2016	10/28/16 13:56	
Bromodichloromethane	ND	5.2	1.0	1	B6J0781	10/28/2016	10/28/16 13:56	
Bromoform	ND	5.2	0.73	1	B6J0781	10/28/2016	10/28/16 13:56	
Bromomethane	ND	5.2	4.4	1	B6J0781	10/28/2016	10/28/16 13:56	
Carbon disulfide	1.5	5.2	1.2	1	B6J0781	10/28/2016	10/28/16 13:56	J
Carbon tetrachloride	ND	5.2	1.1	1	B6J0781	10/28/2016	10/28/16 13:56	
Chlorobenzene	ND	5.2	0.66	1	B6J0781	10/28/2016	10/28/16 13:56	
Chloroethane	ND	5.2	1.9	1	B6J0781	10/28/2016	10/28/16 13:56	
Chloroform	ND	5.2	1.4	1	B6J0781	10/28/2016	10/28/16 13:56	
Chloromethane	ND	5.2	2.0	1	B6J0781	10/28/2016	10/28/16 13:56	
cis-1,2-Dichloroethene	ND	5.2	0.91	1	B6J0781	10/28/2016	10/28/16 13:56	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-2.0-2.5

Lab ID: 1603732-02

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.2	0.83	1	B6J0781	10/28/2016	10/28/16 13:56	
Di-isopropyl ether	ND	5.2	0.53	1	B6J0781	10/28/2016	10/28/16 13:56	
Dibromochloromethane	ND	5.2	1.0	1	B6J0781	10/28/2016	10/28/16 13:56	
Dibromomethane	ND	5.2	1.0	1	B6J0781	10/28/2016	10/28/16 13:56	
Dichlorodifluoromethane	ND	5.2	2.3	1	B6J0781	10/28/2016	10/28/16 13:56	
Ethyl Acetate	ND	52	10	1	B6J0781	10/28/2016	10/28/16 13:56	
Ethyl Ether	ND	52	7.6	1	B6J0781	10/28/2016	10/28/16 13:56	
Ethyl tert-butyl ether	ND	5.2	1.4	1	B6J0781	10/28/2016	10/28/16 13:56	
Ethylbenzene	ND	5.2	0.68	1	B6J0781	10/28/2016	10/28/16 13:56	
Freon-113	ND	5.2	1.1	1	B6J0781	10/28/2016	10/28/16 13:56	
Hexachlorobutadiene	ND	5.2	0.81	1	B6J0781	10/28/2016	10/28/16 13:56	
Isopropylbenzene	ND	5.2	0.62	1	B6J0781	10/28/2016	10/28/16 13:56	
m,p-Xylene	ND	10	1.3	1	B6J0781	10/28/2016	10/28/16 13:56	
Methylene chloride	ND	5.2	1.4	1	B6J0781	10/28/2016	10/28/16 13:56	
MTBE	ND	5.2	0.53	1	B6J0781	10/28/2016	10/28/16 13:56	
n-Butylbenzene	ND	5.2	0.78	1	B6J0781	10/28/2016	10/28/16 13:56	
n-Propylbenzene	ND	5.2	0.57	1	B6J0781	10/28/2016	10/28/16 13:56	
Naphthalene	ND	5.2	1.2	1	B6J0781	10/28/2016	10/28/16 13:56	
o-Xylene	ND	5.2	0.90	1	B6J0781	10/28/2016	10/28/16 13:56	
sec-Butylbenzene	ND	5.2	0.83	1	B6J0781	10/28/2016	10/28/16 13:56	
Styrene	ND	5.2	0.86	1	B6J0781	10/28/2016	10/28/16 13:56	
tert-Amyl methyl ether	ND	5.2	1.5	1	B6J0781	10/28/2016	10/28/16 13:56	
tert-Butanol	ND	100	6.2	1	B6J0781	10/28/2016	10/28/16 13:56	
tert-Butylbenzene	ND	5.2	0.59	1	B6J0781	10/28/2016	10/28/16 13:56	
Tetrachloroethene	ND	5.2	0.68	1	B6J0781	10/28/2016	10/28/16 13:56	
Toluene	ND	5.2	0.83	1	B6J0781	10/28/2016	10/28/16 13:56	
trans-1,2-Dichloroethene	ND	5.2	1.6	1	B6J0781	10/28/2016	10/28/16 13:56	
trans-1,3-Dichloropropene	ND	5.2	0.66	1	B6J0781	10/28/2016	10/28/16 13:56	
Trichloroethene	ND	5.2	1.1	1	B6J0781	10/28/2016	10/28/16 13:56	
Trichlorofluoromethane	ND	5.2	0.93	1	B6J0781	10/28/2016	10/28/16 13:56	
Vinyl acetate	ND	52	5.9	1	B6J0781	10/28/2016	10/28/16 13:56	
Vinyl chloride	ND	5.2	2.1	1	B6J0781	10/28/2016	10/28/16 13:56	
Surrogate: 1,2-Dichloroethane-d4	96.2 %		12 - 186		B6J0781	10/28/2016	10/28/16 13:56	
Surrogate: 4-Bromofluorobenzene	106 %		23 - 162		B6J0781	10/28/2016	10/28/16 13:56	
Surrogate: Dibromofluoromethane	103 %		23 - 179		B6J0781	10/28/2016	10/28/16 13:56	
Surrogate: Toluene-d8	108 %		26 - 164		B6J0781	10/28/2016	10/28/16 13:56	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-2.0-2.5

Lab ID: 1603732-02

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 14:39	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 14:39	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 14:39	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 14:39	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 14:39	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 14:39	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 14:39	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 14:39	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 14:39	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 14:39	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 14:39	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 14:39	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 14:39	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 14:39	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 14:39	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 14:39	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 14:39	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 14:39	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 14:39	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 14:39	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 14:39	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 14:39	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 14:39	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:39	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 14:39	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 14:39	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 14:39	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:39	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 14:39	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 14:39	
Benzydine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 14:39	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 14:39	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 14:39	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 14:39	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 14:39	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 14:39	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 14:39	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-1-2.0-2.5

Lab ID: 1603732-02

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 14:39	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 14:39	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 14:39	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 14:39	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6J0735	10/26/2016	10/27/16 14:39	
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 14:39	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 14:39	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 14:39	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:39	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 14:39	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 14:39	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 14:39	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 14:39	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 14:39	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 14:39	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 14:39	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 14:39	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 14:39	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 14:39	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 14:39	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 14:39	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 14:39	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 14:39	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 14:39	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 14:39	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 14:39	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 14:39	
Phenol	ND	330	130	1	B6J0735	10/26/2016	10/27/16 14:39	
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 14:39	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 14:39	
Surrogate: 1,2-Dichlorobenzene-d4	74.6 %		22 - 107		B6J0735	10/26/2016	10/27/16 14:39	
Surrogate: 2,4,6-Tribromophenol	73.1 %		12 - 129		B6J0735	10/26/2016	10/27/16 14:39	
Surrogate: 2-Chlorophenol-d4	79.7 %		34 - 102		B6J0735	10/26/2016	10/27/16 14:39	
Surrogate: 2-Fluorobiphenyl	84.0 %		25 - 116		B6J0735	10/26/2016	10/27/16 14:39	
Surrogate: 2-Fluorophenol	70.9 %		32 - 101		B6J0735	10/26/2016	10/27/16 14:39	
Surrogate: 4-Terphenyl-d14	88.7 %		34 - 125		B6J0735	10/26/2016	10/27/16 14:39	
Surrogate: Nitrobenzene-d5	84.0 %		30 - 115		B6J0735	10/26/2016	10/27/16 14:39	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-1-2.0-2.5

Lab ID: 1603732-02

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	75.9 %	34 - 104		B6J0735	10/26/2016	10/27/16 14:39	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-5.0-5.5

Lab ID: 1603732-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:38	
Arsenic	2.0	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:38	
Barium	39	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:38	
Beryllium	0.13	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:38	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:38	
Chromium	4.2	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:38	
Cobalt	2.0	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:38	
Copper	3.5	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:38	
Lead	0.96	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:38	J
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:38	
Nickel	3.2	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:38	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:38	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:38	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:38	
Vanadium	19	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:38	
Zinc	9.6	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:38	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:00	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.2	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 12:20	
C23-C36	ND	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 12:20	
Surrogate: p-Terphenyl	73.7 %		18 - 130		B6J0780	10/27/2016	10/28/16 12:20	



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Client Sample ID CL1-1-5.0-5.5

Lab ID: 1603732-03

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 14:15	
1,1,1-Trichloroethane	ND	4.6	0.59	1	B6J0781	10/28/2016	10/28/16 14:15	
1,1,2,2-Tetrachloroethane	ND	4.6	0.85	1	B6J0781	10/28/2016	10/28/16 14:15	
1,1,2-Trichloroethane	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 14:15	
1,1-Dichloroethane	ND	4.6	1.4	1	B6J0781	10/28/2016	10/28/16 14:15	
1,1-Dichloroethene	ND	4.6	0.64	1	B6J0781	10/28/2016	10/28/16 14:15	
1,1-Dichloropropene	ND	4.6	2.3	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2,3-Trichloropropane	ND	4.6	1.1	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2,3-Trichlorobenzene	ND	4.6	0.98	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2,4-Trichlorobenzene	ND	4.6	0.89	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2,4-Trimethylbenzene	ND	4.6	0.49	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2-Dibromo-3-chloropropane	ND	9.2	1.0	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2-Dibromoethane	ND	4.6	0.74	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2-Dichlorobenzene	ND	4.6	0.47	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2-Dichloroethane	ND	4.6	0.49	1	B6J0781	10/28/2016	10/28/16 14:15	
1,2-Dichloropropane	ND	4.6	0.71	1	B6J0781	10/28/2016	10/28/16 14:15	
1,3,5-Trimethylbenzene	ND	4.6	0.54	1	B6J0781	10/28/2016	10/28/16 14:15	
1,3-Dichlorobenzene	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 14:15	
1,3-Dichloropropane	ND	4.6	0.55	1	B6J0781	10/28/2016	10/28/16 14:15	
1,4-Dichlorobenzene	ND	4.6	0.68	1	B6J0781	10/28/2016	10/28/16 14:15	
2,2-Dichloropropane	ND	4.6	0.63	1	B6J0781	10/28/2016	10/28/16 14:15	
2-Chlorotoluene	ND	4.6	0.63	1	B6J0781	10/28/2016	10/28/16 14:15	
4-Chlorotoluene	ND	4.6	0.57	1	B6J0781	10/28/2016	10/28/16 14:15	
4-Isopropyltoluene	ND	4.6	0.59	1	B6J0781	10/28/2016	10/28/16 14:15	
Benzene	ND	4.6	0.54	1	B6J0781	10/28/2016	10/28/16 14:15	
Bromobenzene	ND	4.6	1.8	1	B6J0781	10/28/2016	10/28/16 14:15	
Bromochloromethane	ND	4.6	2.9	1	B6J0781	10/28/2016	10/28/16 14:15	
Bromodichloromethane	ND	4.6	0.93	1	B6J0781	10/28/2016	10/28/16 14:15	
Bromoform	ND	4.6	0.65	1	B6J0781	10/28/2016	10/28/16 14:15	
Bromomethane	ND	4.6	3.9	1	B6J0781	10/28/2016	10/28/16 14:15	
Carbon disulfide	ND	4.6	1.1	1	B6J0781	10/28/2016	10/28/16 14:15	
Carbon tetrachloride	ND	4.6	0.98	1	B6J0781	10/28/2016	10/28/16 14:15	
Chlorobenzene	ND	4.6	0.59	1	B6J0781	10/28/2016	10/28/16 14:15	
Chloroethane	ND	4.6	1.7	1	B6J0781	10/28/2016	10/28/16 14:15	
Chloroform	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 14:15	
Chloromethane	ND	4.6	1.7	1	B6J0781	10/28/2016	10/28/16 14:15	
cis-1,2-Dichloroethene	ND	4.6	0.80	1	B6J0781	10/28/2016	10/28/16 14:15	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-1-5.0-5.5

Lab ID: 1603732-03

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	4.6	0.73	1	B6J0781	10/28/2016	10/28/16 14:15	
Di-isopropyl ether	ND	4.6	0.47	1	B6J0781	10/28/2016	10/28/16 14:15	
Dibromochloromethane	ND	4.6	0.93	1	B6J0781	10/28/2016	10/28/16 14:15	
Dibromomethane	ND	4.6	0.92	1	B6J0781	10/28/2016	10/28/16 14:15	
Dichlorodifluoromethane	ND	4.6	2.0	1	B6J0781	10/28/2016	10/28/16 14:15	
Ethyl Acetate	ND	46	9.0	1	B6J0781	10/28/2016	10/28/16 14:15	
Ethyl Ether	ND	46	6.7	1	B6J0781	10/28/2016	10/28/16 14:15	
Ethyl tert-butyl ether	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 14:15	
Ethylbenzene	ND	4.6	0.60	1	B6J0781	10/28/2016	10/28/16 14:15	
Freon-113	ND	4.6	0.97	1	B6J0781	10/28/2016	10/28/16 14:15	
Hexachlorobutadiene	ND	4.6	0.72	1	B6J0781	10/28/2016	10/28/16 14:15	
Isopropylbenzene	ND	4.6	0.55	1	B6J0781	10/28/2016	10/28/16 14:15	
m,p-Xylene	ND	9.2	1.1	1	B6J0781	10/28/2016	10/28/16 14:15	
Methylene chloride	ND	4.6	1.3	1	B6J0781	10/28/2016	10/28/16 14:15	
MTBE	ND	4.6	0.47	1	B6J0781	10/28/2016	10/28/16 14:15	
n-Butylbenzene	ND	4.6	0.69	1	B6J0781	10/28/2016	10/28/16 14:15	
n-Propylbenzene	ND	4.6	0.51	1	B6J0781	10/28/2016	10/28/16 14:15	
Naphthalene	ND	4.6	1.1	1	B6J0781	10/28/2016	10/28/16 14:15	
o-Xylene	ND	4.6	0.80	1	B6J0781	10/28/2016	10/28/16 14:15	
sec-Butylbenzene	ND	4.6	0.73	1	B6J0781	10/28/2016	10/28/16 14:15	
Styrene	ND	4.6	0.76	1	B6J0781	10/28/2016	10/28/16 14:15	
tert-Amyl methyl ether	ND	4.6	1.4	1	B6J0781	10/28/2016	10/28/16 14:15	
tert-Butanol	ND	92	5.4	1	B6J0781	10/28/2016	10/28/16 14:15	
tert-Butylbenzene	ND	4.6	0.52	1	B6J0781	10/28/2016	10/28/16 14:15	
Tetrachloroethene	ND	4.6	0.60	1	B6J0781	10/28/2016	10/28/16 14:15	
Toluene	ND	4.6	0.73	1	B6J0781	10/28/2016	10/28/16 14:15	
trans-1,2-Dichloroethene	ND	4.6	1.4	1	B6J0781	10/28/2016	10/28/16 14:15	
trans-1,3-Dichloropropene	ND	4.6	0.58	1	B6J0781	10/28/2016	10/28/16 14:15	
Trichloroethene	ND	4.6	1.0	1	B6J0781	10/28/2016	10/28/16 14:15	
Trichlorofluoromethane	ND	4.6	0.83	1	B6J0781	10/28/2016	10/28/16 14:15	
Vinyl acetate	ND	46	5.3	1	B6J0781	10/28/2016	10/28/16 14:15	
Vinyl chloride	ND	4.6	1.9	1	B6J0781	10/28/2016	10/28/16 14:15	
Surrogate: 1,2-Dichloroethane-d4	100 %		12 - 186		B6J0781	10/28/2016	10/28/16 14:15	
Surrogate: 4-Bromofluorobenzene	100 %		23 - 162		B6J0781	10/28/2016	10/28/16 14:15	
Surrogate: Dibromofluoromethane	102 %		23 - 179		B6J0781	10/28/2016	10/28/16 14:15	
Surrogate: Toluene-d8	102 %		26 - 164		B6J0781	10/28/2016	10/28/16 14:15	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-5.0-5.5

Lab ID: 1603732-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 15:07	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 15:07	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 15:07	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 15:07	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 15:07	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 15:07	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 15:07	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 15:07	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 15:07	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 15:07	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 15:07	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 15:07	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 15:07	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 15:07	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 15:07	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 15:07	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 15:07	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 15:07	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 15:07	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 15:07	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 15:07	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 15:07	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 15:07	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:07	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 15:07	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 15:07	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 15:07	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:07	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 15:07	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 15:07	
Benzidine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 15:07	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 15:07	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 15:07	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 15:07	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 15:07	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 15:07	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 15:07	



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Client Sample ID CL1-1-5.0-5.5

Lab ID: 1603732-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 15:07	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 15:07	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 15:07	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 15:07	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6J0735	10/26/2016	10/27/16 15:07	
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 15:07	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 15:07	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 15:07	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:07	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 15:07	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 15:07	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 15:07	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 15:07	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 15:07	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 15:07	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 15:07	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 15:07	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 15:07	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 15:07	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 15:07	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 15:07	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 15:07	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:07	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 15:07	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 15:07	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 15:07	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 15:07	
Phenol	ND	330	130	1	B6J0735	10/26/2016	10/27/16 15:07	
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 15:07	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 15:07	
Surrogate: 1,2-Dichlorobenzene-d4	71.3 %		22 - 107		B6J0735	10/26/2016	10/27/16 15:07	
Surrogate: 2,4,6-Tribromophenol	80.4 %		12 - 129		B6J0735	10/26/2016	10/27/16 15:07	
Surrogate: 2-Chlorophenol-d4	76.9 %		34 - 102		B6J0735	10/26/2016	10/27/16 15:07	
Surrogate: 2-Fluorobiphenyl	80.1 %		25 - 116		B6J0735	10/26/2016	10/27/16 15:07	
Surrogate: 2-Fluorophenol	67.1 %		32 - 101		B6J0735	10/26/2016	10/27/16 15:07	
Surrogate: 4-Terphenyl-d14	87.3 %		34 - 125		B6J0735	10/26/2016	10/27/16 15:07	
Surrogate: Nitrobenzene-d5	80.7 %		30 - 115		B6J0735	10/26/2016	10/27/16 15:07	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-5.0-5.5

Lab ID: 1603732-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	73.4 %	34 - 104		B6J0735	10/26/2016	10/27/16 15:07	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
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Client Sample ID CL1-1-9.5-10.0

Lab ID: 1603732-04

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:39	
Arsenic	6.4	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:39	
Barium	86	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:39	
Beryllium	0.13	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:39	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:39	
Chromium	4.3	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:39	
Cobalt	2.6	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:39	
Copper	4.6	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:39	
Lead	1.0	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:39	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:39	
Nickel	3.4	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:39	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:39	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:39	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:39	
Vanadium	32	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:39	
Zinc	12	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:39	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.05	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:06	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	ND	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 12:37	
C23-C36	ND	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 12:37	
Surrogate: p-Terphenyl	62.7 %		18 - 130		B6J0780	10/27/2016	10/28/16 12:37	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

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Client Sample ID CL1-1-9.5-10.0

Lab ID: 1603732-04

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	0.55	1	B6J0781	10/28/2016	10/28/16 14:33	
1,1,1-Trichloroethane	ND	4.4	0.56	1	B6J0781	10/28/2016	10/28/16 14:33	
1,1,2,2-Tetrachloroethane	ND	4.4	0.81	1	B6J0781	10/28/2016	10/28/16 14:33	
1,1,2-Trichloroethane	ND	4.4	1.2	1	B6J0781	10/28/2016	10/28/16 14:33	
1,1-Dichloroethane	ND	4.4	1.3	1	B6J0781	10/28/2016	10/28/16 14:33	
1,1-Dichloroethene	ND	4.4	0.61	1	B6J0781	10/28/2016	10/28/16 14:33	
1,1-Dichloropropene	ND	4.4	2.2	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2,3-Trichloropropane	ND	4.4	1.1	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2,3-Trichlorobenzene	ND	4.4	0.93	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2,4-Trichlorobenzene	ND	4.4	0.85	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2,4-Trimethylbenzene	ND	4.4	0.47	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2-Dibromo-3-chloropropane	ND	8.8	0.99	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2-Dibromoethane	ND	4.4	0.70	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2-Dichlorobenzene	ND	4.4	0.45	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2-Dichloroethane	ND	4.4	0.46	1	B6J0781	10/28/2016	10/28/16 14:33	
1,2-Dichloropropane	ND	4.4	0.67	1	B6J0781	10/28/2016	10/28/16 14:33	
1,3,5-Trimethylbenzene	ND	4.4	0.51	1	B6J0781	10/28/2016	10/28/16 14:33	
1,3-Dichlorobenzene	ND	4.4	0.55	1	B6J0781	10/28/2016	10/28/16 14:33	
1,3-Dichloropropane	ND	4.4	0.52	1	B6J0781	10/28/2016	10/28/16 14:33	
1,4-Dichlorobenzene	ND	4.4	0.65	1	B6J0781	10/28/2016	10/28/16 14:33	
2,2-Dichloropropane	ND	4.4	0.60	1	B6J0781	10/28/2016	10/28/16 14:33	
2-Chlorotoluene	ND	4.4	0.60	1	B6J0781	10/28/2016	10/28/16 14:33	
4-Chlorotoluene	ND	4.4	0.54	1	B6J0781	10/28/2016	10/28/16 14:33	
4-Isopropyltoluene	ND	4.4	0.56	1	B6J0781	10/28/2016	10/28/16 14:33	
Benzene	ND	4.4	0.52	1	B6J0781	10/28/2016	10/28/16 14:33	
Bromobenzene	ND	4.4	1.7	1	B6J0781	10/28/2016	10/28/16 14:33	
Bromochloromethane	ND	4.4	2.8	1	B6J0781	10/28/2016	10/28/16 14:33	
Bromodichloromethane	ND	4.4	0.88	1	B6J0781	10/28/2016	10/28/16 14:33	
Bromoform	ND	4.4	0.62	1	B6J0781	10/28/2016	10/28/16 14:33	
Bromomethane	ND	4.4	3.7	1	B6J0781	10/28/2016	10/28/16 14:33	
Carbon disulfide	ND	4.4	1.0	1	B6J0781	10/28/2016	10/28/16 14:33	
Carbon tetrachloride	ND	4.4	0.94	1	B6J0781	10/28/2016	10/28/16 14:33	
Chlorobenzene	ND	4.4	0.56	1	B6J0781	10/28/2016	10/28/16 14:33	
Chloroethane	ND	4.4	1.6	1	B6J0781	10/28/2016	10/28/16 14:33	
Chloroform	ND	4.4	1.2	1	B6J0781	10/28/2016	10/28/16 14:33	
Chloromethane	ND	4.4	1.7	1	B6J0781	10/28/2016	10/28/16 14:33	
cis-1,2-Dichloroethene	ND	4.4	0.76	1	B6J0781	10/28/2016	10/28/16 14:33	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-9.5-10.0

Lab ID: 1603732-04

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	4.4	0.70	1	B6J0781	10/28/2016	10/28/16 14:33	
Di-isopropyl ether	ND	4.4	0.45	1	B6J0781	10/28/2016	10/28/16 14:33	
Dibromochloromethane	ND	4.4	0.88	1	B6J0781	10/28/2016	10/28/16 14:33	
Dibromomethane	ND	4.4	0.87	1	B6J0781	10/28/2016	10/28/16 14:33	
Dichlorodifluoromethane	ND	4.4	1.9	1	B6J0781	10/28/2016	10/28/16 14:33	
Ethyl Acetate	ND	44	8.6	1	B6J0781	10/28/2016	10/28/16 14:33	
Ethyl Ether	ND	44	6.4	1	B6J0781	10/28/2016	10/28/16 14:33	
Ethyl tert-butyl ether	ND	4.4	1.2	1	B6J0781	10/28/2016	10/28/16 14:33	
Ethylbenzene	ND	4.4	0.57	1	B6J0781	10/28/2016	10/28/16 14:33	
Freon-113	ND	4.4	0.92	1	B6J0781	10/28/2016	10/28/16 14:33	
Hexachlorobutadiene	ND	4.4	0.69	1	B6J0781	10/28/2016	10/28/16 14:33	
Isopropylbenzene	ND	4.4	0.52	1	B6J0781	10/28/2016	10/28/16 14:33	
m,p-Xylene	ND	8.8	1.1	1	B6J0781	10/28/2016	10/28/16 14:33	
Methylene chloride	ND	4.4	1.2	1	B6J0781	10/28/2016	10/28/16 14:33	
MTBE	ND	4.4	0.44	1	B6J0781	10/28/2016	10/28/16 14:33	
n-Butylbenzene	ND	4.4	0.66	1	B6J0781	10/28/2016	10/28/16 14:33	
n-Propylbenzene	ND	4.4	0.48	1	B6J0781	10/28/2016	10/28/16 14:33	
Naphthalene	ND	4.4	1.1	1	B6J0781	10/28/2016	10/28/16 14:33	
o-Xylene	ND	4.4	0.76	1	B6J0781	10/28/2016	10/28/16 14:33	
sec-Butylbenzene	ND	4.4	0.70	1	B6J0781	10/28/2016	10/28/16 14:33	
Styrene	ND	4.4	0.72	1	B6J0781	10/28/2016	10/28/16 14:33	
tert-Amyl methyl ether	ND	4.4	1.3	1	B6J0781	10/28/2016	10/28/16 14:33	
tert-Butanol	ND	88	5.2	1	B6J0781	10/28/2016	10/28/16 14:33	
tert-Butylbenzene	ND	4.4	0.50	1	B6J0781	10/28/2016	10/28/16 14:33	
Tetrachloroethene	ND	4.4	0.57	1	B6J0781	10/28/2016	10/28/16 14:33	
Toluene	ND	4.4	0.70	1	B6J0781	10/28/2016	10/28/16 14:33	
trans-1,2-Dichloroethene	ND	4.4	1.3	1	B6J0781	10/28/2016	10/28/16 14:33	
trans-1,3-Dichloropropene	ND	4.4	0.56	1	B6J0781	10/28/2016	10/28/16 14:33	
Trichloroethene	ND	4.4	0.97	1	B6J0781	10/28/2016	10/28/16 14:33	
Trichlorofluoromethane	ND	4.4	0.79	1	B6J0781	10/28/2016	10/28/16 14:33	
Vinyl acetate	ND	44	5.0	1	B6J0781	10/28/2016	10/28/16 14:33	
Vinyl chloride	ND	4.4	1.8	1	B6J0781	10/28/2016	10/28/16 14:33	
Surrogate: 1,2-Dichloroethane-d4	103 %		12 - 186		B6J0781	10/28/2016	10/28/16 14:33	
Surrogate: 4-Bromofluorobenzene	101 %		23 - 162		B6J0781	10/28/2016	10/28/16 14:33	
Surrogate: Dibromofluoromethane	106 %		23 - 179		B6J0781	10/28/2016	10/28/16 14:33	
Surrogate: Toluene-d8	103 %		26 - 164		B6J0781	10/28/2016	10/28/16 14:33	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-1-9.5-10.0

Lab ID: 1603732-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 15:34	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 15:34	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 15:34	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 15:34	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 15:34	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 15:34	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 15:34	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 15:34	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 15:34	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 15:34	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 15:34	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 15:34	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 15:34	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 15:34	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 15:34	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 15:34	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 15:34	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 15:34	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 15:34	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 15:34	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 15:34	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 15:34	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 15:34	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:34	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 15:34	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 15:34	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 15:34	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:34	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 15:34	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 15:34	
Benzidine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 15:34	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 15:34	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 15:34	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 15:34	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 15:34	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 15:34	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 15:34	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-1-9.5-10.0

Lab ID: 1603732-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 15:34	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 15:34	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 15:34	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 15:34	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6J0735	10/26/2016	10/27/16 15:34	
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 15:34	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 15:34	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 15:34	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:34	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 15:34	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 15:34	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 15:34	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 15:34	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 15:34	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 15:34	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 15:34	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 15:34	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 15:34	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 15:34	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 15:34	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 15:34	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 15:34	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 15:34	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 15:34	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 15:34	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 15:34	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 15:34	
Phenol	ND	330	130	1	B6J0735	10/26/2016	10/27/16 15:34	
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 15:34	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 15:34	
Surrogate: 1,2-Dichlorobenzene-d4	70.2 %		22 - 107		B6J0735	10/26/2016	10/27/16 15:34	
Surrogate: 2,4,6-Tribromophenol	79.6 %		12 - 129		B6J0735	10/26/2016	10/27/16 15:34	
Surrogate: 2-Chlorophenol-d4	75.3 %		34 - 102		B6J0735	10/26/2016	10/27/16 15:34	
Surrogate: 2-Fluorobiphenyl	73.3 %		25 - 116		B6J0735	10/26/2016	10/27/16 15:34	
Surrogate: 2-Fluorophenol	69.8 %		32 - 101		B6J0735	10/26/2016	10/27/16 15:34	
Surrogate: 4-Terphenyl-d14	92.4 %		34 - 125		B6J0735	10/26/2016	10/27/16 15:34	
Surrogate: Nitrobenzene-d5	75.5 %		30 - 115		B6J0735	10/26/2016	10/27/16 15:34	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-1-9.5-10.0

Lab ID: 1603732-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	73.2 %	34 - 104		B6J0735	10/26/2016	10/27/16 15:34	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-0.5-1.0

Lab ID: 1603732-05

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:41	
Arsenic	2.7	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:41	
Barium	82	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:41	
Beryllium	0.28	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:41	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:41	
Chromium	17	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:41	
Cobalt	4.8	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:41	
Copper	12	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:41	
Lead	11	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:41	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:41	
Nickel	10	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:41	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:41	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:41	
Thallium	0.58	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:41	J
Vanadium	22	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:41	
Zinc	28	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:41	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.04	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:12	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.6	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 14:09	
C23-C36	7.3	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 14:09	
Surrogate: p-Terphenyl	47.6 %		18 - 130		B6J0780	10/27/2016	10/28/16 14:09	



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Project Number : Roosevelt HS, 265642
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Client Sample ID CL1-2-0.5-1.0

Lab ID: 1603732-05

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.2	0.53	1	B6J0781	10/28/2016	10/28/16 14:52	
1,1,1-Trichloroethane	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 14:52	
1,1,2,2-Tetrachloroethane	ND	4.2	0.77	1	B6J0781	10/28/2016	10/28/16 14:52	
1,1,2-Trichloroethane	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 14:52	
1,1-Dichloroethane	ND	4.2	1.3	1	B6J0781	10/28/2016	10/28/16 14:52	
1,1-Dichloroethene	ND	4.2	0.59	1	B6J0781	10/28/2016	10/28/16 14:52	
1,1-Dichloropropene	ND	4.2	2.1	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2,3-Trichloropropane	ND	4.2	1.0	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2,3-Trichlorobenzene	ND	4.2	0.90	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2,4-Trichlorobenzene	ND	4.2	0.81	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2,4-Trimethylbenzene	ND	4.2	0.45	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2-Dibromo-3-chloropropane	ND	8.5	0.95	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2-Dibromoethane	ND	4.2	0.68	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2-Dichlorobenzene	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2-Dichloroethane	ND	4.2	0.45	1	B6J0781	10/28/2016	10/28/16 14:52	
1,2-Dichloropropane	ND	4.2	0.65	1	B6J0781	10/28/2016	10/28/16 14:52	
1,3,5-Trimethylbenzene	ND	4.2	0.49	1	B6J0781	10/28/2016	10/28/16 14:52	
1,3-Dichlorobenzene	ND	4.2	0.53	1	B6J0781	10/28/2016	10/28/16 14:52	
1,3-Dichloropropane	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 14:52	
1,4-Dichlorobenzene	ND	4.2	0.62	1	B6J0781	10/28/2016	10/28/16 14:52	
2,2-Dichloropropane	ND	4.2	0.58	1	B6J0781	10/28/2016	10/28/16 14:52	
2-Chlorotoluene	ND	4.2	0.57	1	B6J0781	10/28/2016	10/28/16 14:52	
4-Chlorotoluene	ND	4.2	0.52	1	B6J0781	10/28/2016	10/28/16 14:52	
4-Isopropyltoluene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 14:52	
Benzene	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 14:52	
Bromobenzene	ND	4.2	1.6	1	B6J0781	10/28/2016	10/28/16 14:52	
Bromochloromethane	ND	4.2	2.7	1	B6J0781	10/28/2016	10/28/16 14:52	
Bromodichloromethane	ND	4.2	0.85	1	B6J0781	10/28/2016	10/28/16 14:52	
Bromoform	ND	4.2	0.59	1	B6J0781	10/28/2016	10/28/16 14:52	
Bromomethane	ND	4.2	3.6	1	B6J0781	10/28/2016	10/28/16 14:52	
Carbon disulfide	ND	4.2	0.98	1	B6J0781	10/28/2016	10/28/16 14:52	
Carbon tetrachloride	ND	4.2	0.90	1	B6J0781	10/28/2016	10/28/16 14:52	
Chlorobenzene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 14:52	
Chloroethane	ND	4.2	1.6	1	B6J0781	10/28/2016	10/28/16 14:52	
Chloroform	ND	4.2	1.1	1	B6J0781	10/28/2016	10/28/16 14:52	
Chloromethane	ND	4.2	1.6	1	B6J0781	10/28/2016	10/28/16 14:52	
cis-1,2-Dichloroethene	ND	4.2	0.73	1	B6J0781	10/28/2016	10/28/16 14:52	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-0.5-1.0

Lab ID: 1603732-05

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 14:52	
Di-isopropyl ether	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 14:52	
Dibromochloromethane	ND	4.2	0.85	1	B6J0781	10/28/2016	10/28/16 14:52	
Dibromomethane	ND	4.2	0.84	1	B6J0781	10/28/2016	10/28/16 14:52	
Dichlorodifluoromethane	ND	4.2	1.9	1	B6J0781	10/28/2016	10/28/16 14:52	
Ethyl Acetate	ND	42	8.2	1	B6J0781	10/28/2016	10/28/16 14:52	
Ethyl Ether	ND	42	6.1	1	B6J0781	10/28/2016	10/28/16 14:52	
Ethyl tert-butyl ether	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 14:52	
Ethylbenzene	ND	4.2	0.55	1	B6J0781	10/28/2016	10/28/16 14:52	
Freon-113	ND	4.2	0.89	1	B6J0781	10/28/2016	10/28/16 14:52	
Hexachlorobutadiene	ND	4.2	0.66	1	B6J0781	10/28/2016	10/28/16 14:52	
Isopropylbenzene	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 14:52	
m,p-Xylene	ND	8.5	1.0	1	B6J0781	10/28/2016	10/28/16 14:52	
Methylene chloride	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 14:52	
MTBE	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 14:52	
n-Butylbenzene	ND	4.2	0.63	1	B6J0781	10/28/2016	10/28/16 14:52	
n-Propylbenzene	ND	4.2	0.46	1	B6J0781	10/28/2016	10/28/16 14:52	
Naphthalene	ND	4.2	1.0	1	B6J0781	10/28/2016	10/28/16 14:52	
o-Xylene	ND	4.2	0.73	1	B6J0781	10/28/2016	10/28/16 14:52	
sec-Butylbenzene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 14:52	
Styrene	ND	4.2	0.70	1	B6J0781	10/28/2016	10/28/16 14:52	
tert-Amyl methyl ether	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 14:52	
tert-Butanol	ND	85	5.0	1	B6J0781	10/28/2016	10/28/16 14:52	
tert-Butylbenzene	ND	4.2	0.48	1	B6J0781	10/28/2016	10/28/16 14:52	
Tetrachloroethene	ND	4.2	0.55	1	B6J0781	10/28/2016	10/28/16 14:52	
Toluene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 14:52	
trans-1,2-Dichloroethene	ND	4.2	1.3	1	B6J0781	10/28/2016	10/28/16 14:52	
trans-1,3-Dichloropropene	ND	4.2	0.53	1	B6J0781	10/28/2016	10/28/16 14:52	
Trichloroethene	ND	4.2	0.93	1	B6J0781	10/28/2016	10/28/16 14:52	
Trichlorofluoromethane	ND	4.2	0.76	1	B6J0781	10/28/2016	10/28/16 14:52	
Vinyl acetate	ND	42	4.8	1	B6J0781	10/28/2016	10/28/16 14:52	
Vinyl chloride	ND	4.2	1.7	1	B6J0781	10/28/2016	10/28/16 14:52	
Surrogate: 1,2-Dichloroethane-d4	112 %		12 - 186		B6J0781	10/28/2016	10/28/16 14:52	
Surrogate: 4-Bromofluorobenzene	100 %		23 - 162		B6J0781	10/28/2016	10/28/16 14:52	
Surrogate: Dibromofluoromethane	107 %		23 - 179		B6J0781	10/28/2016	10/28/16 14:52	
Surrogate: Toluene-d8	104 %		26 - 164		B6J0781	10/28/2016	10/28/16 14:52	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-0.5-1.0

Lab ID: 1603732-05

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 16:01	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:01	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:01	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:01	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 16:01	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 16:01	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 16:01	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 16:01	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 16:01	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:01	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:01	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 16:01	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 16:01	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:01	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:01	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 16:01	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 16:01	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 16:01	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 16:01	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 16:01	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 16:01	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 16:01	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 16:01	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:01	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 16:01	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 16:01	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 16:01	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:01	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 16:01	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:01	
Benzidine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 16:01	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 16:01	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 16:01	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 16:01	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 16:01	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 16:01	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 16:01	



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Client Sample ID CL1-2-0.5-1.0

Lab ID: 1603732-05

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 16:01	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 16:01	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 16:01	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:01	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6J0735	10/26/2016	10/27/16 16:01	
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 16:01	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 16:01	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 16:01	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:01	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 16:01	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 16:01	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 16:01	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:01	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 16:01	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:01	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 16:01	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 16:01	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 16:01	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 16:01	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 16:01	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 16:01	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:01	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:01	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:01	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:01	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 16:01	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:01	
Phenol	ND	330	130	1	B6J0735	10/26/2016	10/27/16 16:01	
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 16:01	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 16:01	
Surrogate: 1,2-Dichlorobenzene-d4	51.6 %		22 - 107		B6J0735	10/26/2016	10/27/16 16:01	
Surrogate: 2,4,6-Tribromophenol	0%		12 - 129		B6J0735	10/26/2016	10/27/16 16:01	S10
Surrogate: 2-Chlorophenol-d4	15.0 %		34 - 102		B6J0735	10/26/2016	10/27/16 16:01	S10
Surrogate: 2-Fluorobiphenyl	61.4 %		25 - 116		B6J0735	10/26/2016	10/27/16 16:01	
Surrogate: 2-Fluorophenol	6.32 %		32 - 101		B6J0735	10/26/2016	10/27/16 16:01	S10
Surrogate: 4-Terphenyl-d14	90.0 %		34 - 125		B6J0735	10/26/2016	10/27/16 16:01	
Surrogate: Nitrobenzene-d5	57.5 %		30 - 115		B6J0735	10/26/2016	10/27/16 16:01	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-2-0.5-1.0

Lab ID: 1603732-05

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	29.7 %	34 - 104		B6J0735	10/26/2016	10/27/16 16:01	S10



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Project Number : Roosevelt HS, 265642
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Client Sample ID CL1-2-2.0-2.5

Lab ID: 1603732-06

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:44	
Arsenic	1.2	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:44	
Barium	80	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:44	
Beryllium	0.36	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:44	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:44	
Chromium	12	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:44	
Cobalt	6.4	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:44	
Copper	6.2	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:44	
Lead	2.9	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:44	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:44	
Nickel	6.1	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:44	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:44	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:44	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:44	
Vanadium	25	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:44	
Zinc	21	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:44	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:14	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	4.2	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 11:28	
C23-C36	1.6	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 11:28	
Surrogate: p-Terphenyl	69.6 %		18 - 130		B6J0780	10/27/2016	10/28/16 11:28	



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Report To : John Nordenstam
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Client Sample ID CL1-2-2.0-2.5

Lab ID: 1603732-06

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.2	0.53	1	B6J0781	10/28/2016	10/28/16 15:11	
1,1,1-Trichloroethane	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 15:11	
1,1,2,2-Tetrachloroethane	ND	4.2	0.78	1	B6J0781	10/28/2016	10/28/16 15:11	
1,1,2-Trichloroethane	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 15:11	
1,1-Dichloroethane	ND	4.2	1.3	1	B6J0781	10/28/2016	10/28/16 15:11	
1,1-Dichloroethene	ND	4.2	0.59	1	B6J0781	10/28/2016	10/28/16 15:11	
1,1-Dichloropropene	ND	4.2	2.1	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2,3-Trichloropropane	ND	4.2	1.0	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2,3-Trichlorobenzene	ND	4.2	0.90	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2,4-Trichlorobenzene	ND	4.2	0.82	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2,4-Trimethylbenzene	ND	4.2	0.45	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2-Dibromo-3-chloropropane	ND	8.5	0.96	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2-Dibromoethane	ND	4.2	0.68	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2-Dichlorobenzene	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2-Dichloroethane	ND	4.2	0.45	1	B6J0781	10/28/2016	10/28/16 15:11	
1,2-Dichloropropane	ND	4.2	0.65	1	B6J0781	10/28/2016	10/28/16 15:11	
1,3,5-Trimethylbenzene	ND	4.2	0.49	1	B6J0781	10/28/2016	10/28/16 15:11	
1,3-Dichlorobenzene	ND	4.2	0.53	1	B6J0781	10/28/2016	10/28/16 15:11	
1,3-Dichloropropane	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 15:11	
1,4-Dichlorobenzene	ND	4.2	0.62	1	B6J0781	10/28/2016	10/28/16 15:11	
2,2-Dichloropropane	ND	4.2	0.58	1	B6J0781	10/28/2016	10/28/16 15:11	
2-Chlorotoluene	ND	4.2	0.58	1	B6J0781	10/28/2016	10/28/16 15:11	
4-Chlorotoluene	ND	4.2	0.52	1	B6J0781	10/28/2016	10/28/16 15:11	
4-Isopropyltoluene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 15:11	
Benzene	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 15:11	
Bromobenzene	ND	4.2	1.7	1	B6J0781	10/28/2016	10/28/16 15:11	
Bromochloromethane	ND	4.2	2.7	1	B6J0781	10/28/2016	10/28/16 15:11	
Bromodichloromethane	ND	4.2	0.85	1	B6J0781	10/28/2016	10/28/16 15:11	
Bromoform	ND	4.2	0.60	1	B6J0781	10/28/2016	10/28/16 15:11	
Bromomethane	ND	4.2	3.6	1	B6J0781	10/28/2016	10/28/16 15:11	
Carbon disulfide	ND	4.2	0.99	1	B6J0781	10/28/2016	10/28/16 15:11	
Carbon tetrachloride	ND	4.2	0.90	1	B6J0781	10/28/2016	10/28/16 15:11	
Chlorobenzene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 15:11	
Chloroethane	ND	4.2	1.6	1	B6J0781	10/28/2016	10/28/16 15:11	
Chloroform	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 15:11	
Chloromethane	ND	4.2	1.6	1	B6J0781	10/28/2016	10/28/16 15:11	
cis-1,2-Dichloroethene	ND	4.2	0.74	1	B6J0781	10/28/2016	10/28/16 15:11	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-2.0-2.5

Lab ID: 1603732-06

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 15:11	
Di-isopropyl ether	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 15:11	
Dibromochloromethane	ND	4.2	0.85	1	B6J0781	10/28/2016	10/28/16 15:11	
Dibromomethane	ND	4.2	0.84	1	B6J0781	10/28/2016	10/28/16 15:11	
Dichlorodifluoromethane	ND	4.2	1.9	1	B6J0781	10/28/2016	10/28/16 15:11	
Ethyl Acetate	ND	42	8.2	1	B6J0781	10/28/2016	10/28/16 15:11	
Ethyl Ether	ND	42	6.2	1	B6J0781	10/28/2016	10/28/16 15:11	
Ethyl tert-butyl ether	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 15:11	
Ethylbenzene	ND	4.2	0.55	1	B6J0781	10/28/2016	10/28/16 15:11	
Freon-113	ND	4.2	0.89	1	B6J0781	10/28/2016	10/28/16 15:11	
Hexachlorobutadiene	ND	4.2	0.66	1	B6J0781	10/28/2016	10/28/16 15:11	
Isopropylbenzene	ND	4.2	0.50	1	B6J0781	10/28/2016	10/28/16 15:11	
m,p-Xylene	ND	8.5	1.0	1	B6J0781	10/28/2016	10/28/16 15:11	
Methylene chloride	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 15:11	
MTBE	ND	4.2	0.43	1	B6J0781	10/28/2016	10/28/16 15:11	
n-Butylbenzene	ND	4.2	0.63	1	B6J0781	10/28/2016	10/28/16 15:11	
n-Propylbenzene	ND	4.2	0.47	1	B6J0781	10/28/2016	10/28/16 15:11	
Naphthalene	ND	4.2	1.0	1	B6J0781	10/28/2016	10/28/16 15:11	
o-Xylene	ND	4.2	0.73	1	B6J0781	10/28/2016	10/28/16 15:11	
sec-Butylbenzene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 15:11	
Styrene	ND	4.2	0.70	1	B6J0781	10/28/2016	10/28/16 15:11	
tert-Amyl methyl ether	ND	4.2	1.2	1	B6J0781	10/28/2016	10/28/16 15:11	
tert-Butanol	ND	85	5.0	1	B6J0781	10/28/2016	10/28/16 15:11	
tert-Butylbenzene	ND	4.2	0.48	1	B6J0781	10/28/2016	10/28/16 15:11	
Tetrachloroethene	ND	4.2	0.55	1	B6J0781	10/28/2016	10/28/16 15:11	
Toluene	ND	4.2	0.67	1	B6J0781	10/28/2016	10/28/16 15:11	
trans-1,2-Dichloroethene	ND	4.2	1.3	1	B6J0781	10/28/2016	10/28/16 15:11	
trans-1,3-Dichloropropene	ND	4.2	0.54	1	B6J0781	10/28/2016	10/28/16 15:11	
Trichloroethene	ND	4.2	0.93	1	B6J0781	10/28/2016	10/28/16 15:11	
Trichlorofluoromethane	ND	4.2	0.76	1	B6J0781	10/28/2016	10/28/16 15:11	
Vinyl acetate	ND	42	4.8	1	B6J0781	10/28/2016	10/28/16 15:11	
Vinyl chloride	ND	4.2	1.7	1	B6J0781	10/28/2016	10/28/16 15:11	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>112 %</i>		<i>12 - 186</i>		B6J0781	10/28/2016	<i>10/28/16 15:11</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>104 %</i>		<i>23 - 162</i>		B6J0781	10/28/2016	<i>10/28/16 15:11</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>110 %</i>		<i>23 - 179</i>		B6J0781	10/28/2016	<i>10/28/16 15:11</i>	
<i>Surrogate: Toluene-d8</i>	<i>110 %</i>		<i>26 - 164</i>		B6J0781	10/28/2016	<i>10/28/16 15:11</i>	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-2.0-2.5

Lab ID: 1603732-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 16:29	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:29	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:29	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:29	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 16:29	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 16:29	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 16:29	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 16:29	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 16:29	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:29	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:29	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 16:29	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 16:29	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:29	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:29	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 16:29	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 16:29	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 16:29	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 16:29	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 16:29	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 16:29	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 16:29	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 16:29	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:29	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 16:29	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 16:29	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 16:29	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:29	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 16:29	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:29	
Benzidine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 16:29	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 16:29	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 16:29	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 16:29	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 16:29	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 16:29	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 16:29	



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Client Sample ID CL1-2-2.0-2.5

Lab ID: 1603732-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 16:29	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 16:29	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 16:29	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:29	
bis(2-ethylhexyl)phthalate	190	330	83	1	B6J0735	10/26/2016	10/27/16 16:29	J
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 16:29	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 16:29	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 16:29	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:29	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 16:29	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 16:29	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 16:29	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:29	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 16:29	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:29	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 16:29	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 16:29	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 16:29	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 16:29	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 16:29	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 16:29	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:29	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:29	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:29	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:29	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 16:29	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:29	
Phenol	ND	330	130	1	B6J0735	10/26/2016	10/27/16 16:29	
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 16:29	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 16:29	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>70.5 %</i>		<i>22 - 107</i>		B6J0735	10/26/2016	<i>10/27/16 16:29</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>78.4 %</i>		<i>12 - 129</i>		B6J0735	10/26/2016	<i>10/27/16 16:29</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>75.4 %</i>		<i>34 - 102</i>		B6J0735	10/26/2016	<i>10/27/16 16:29</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>81.7 %</i>		<i>25 - 116</i>		B6J0735	10/26/2016	<i>10/27/16 16:29</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>65.4 %</i>		<i>32 - 101</i>		B6J0735	10/26/2016	<i>10/27/16 16:29</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>86.9 %</i>		<i>34 - 125</i>		B6J0735	10/26/2016	<i>10/27/16 16:29</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>81.4 %</i>		<i>30 - 115</i>		B6J0735	10/26/2016	<i>10/27/16 16:29</i>	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-2.0-2.5

Lab ID: 1603732-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	72.9 %	34 - 104		B6J0735	10/26/2016	10/27/16 16:29	



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Project Number : Roosevelt HS, 265642
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Client Sample ID CL1-2-5.0-5.5

Lab ID: 1603732-07

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:45	
Arsenic	2.6	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:45	
Barium	50	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:45	
Beryllium	0.25	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:45	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:45	
Chromium	11	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:45	
Cobalt	4.6	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:45	
Copper	4.5	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:45	
Lead	1.7	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:45	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:45	
Nickel	4.9	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:45	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:45	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:45	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:45	
Vanadium	31	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:45	
Zinc	12	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:45	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:16	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.6	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 11:46	
C23-C36	2.6	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 11:46	
Surrogate: <i>p</i> -Terphenyl	80.7 %		18 - 130		B6J0780	10/27/2016	10/28/16 11:46	



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Client Sample ID CL1-2-5.0-5.5

Lab ID: 1603732-07

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	3.8	0.48	1	B6J0781	10/28/2016	10/28/16 15:29	
1,1,1-Trichloroethane	ND	3.8	0.48	1	B6J0781	10/28/2016	10/28/16 15:29	
1,1,2,2-Tetrachloroethane	ND	3.8	0.70	1	B6J0781	10/28/2016	10/28/16 15:29	
1,1,2-Trichloroethane	ND	3.8	1.1	1	B6J0781	10/28/2016	10/28/16 15:29	
1,1-Dichloroethane	ND	3.8	1.1	1	B6J0781	10/28/2016	10/28/16 15:29	
1,1-Dichloroethene	ND	3.8	0.53	1	B6J0781	10/28/2016	10/28/16 15:29	
1,1-Dichloropropene	ND	3.8	1.9	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2,3-Trichloropropane	ND	3.8	0.93	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2,3-Trichlorobenzene	ND	3.8	0.81	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2,4-Trichlorobenzene	ND	3.8	0.73	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2,4-Trimethylbenzene	ND	3.8	0.41	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2-Dibromo-3-chloropropane	ND	7.6	0.86	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2-Dibromoethane	ND	3.8	0.61	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2-Dichlorobenzene	ND	3.8	0.39	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2-Dichloroethane	ND	3.8	0.40	1	B6J0781	10/28/2016	10/28/16 15:29	
1,2-Dichloropropane	ND	3.8	0.58	1	B6J0781	10/28/2016	10/28/16 15:29	
1,3,5-Trimethylbenzene	ND	3.8	0.44	1	B6J0781	10/28/2016	10/28/16 15:29	
1,3-Dichlorobenzene	ND	3.8	0.48	1	B6J0781	10/28/2016	10/28/16 15:29	
1,3-Dichloropropane	ND	3.8	0.45	1	B6J0781	10/28/2016	10/28/16 15:29	
1,4-Dichlorobenzene	ND	3.8	0.56	1	B6J0781	10/28/2016	10/28/16 15:29	
2,2-Dichloropropane	ND	3.8	0.52	1	B6J0781	10/28/2016	10/28/16 15:29	
2-Chlorotoluene	ND	3.8	0.52	1	B6J0781	10/28/2016	10/28/16 15:29	
4-Chlorotoluene	ND	3.8	0.47	1	B6J0781	10/28/2016	10/28/16 15:29	
4-Isopropyltoluene	ND	3.8	0.48	1	B6J0781	10/28/2016	10/28/16 15:29	
Benzene	ND	3.8	0.45	1	B6J0781	10/28/2016	10/28/16 15:29	
Bromobenzene	ND	3.8	1.5	1	B6J0781	10/28/2016	10/28/16 15:29	
Bromochloromethane	ND	3.8	2.4	1	B6J0781	10/28/2016	10/28/16 15:29	
Bromodichloromethane	ND	3.8	0.77	1	B6J0781	10/28/2016	10/28/16 15:29	
Bromoform	ND	3.8	0.54	1	B6J0781	10/28/2016	10/28/16 15:29	
Bromomethane	ND	3.8	3.2	1	B6J0781	10/28/2016	10/28/16 15:29	
Carbon disulfide	ND	3.8	0.89	1	B6J0781	10/28/2016	10/28/16 15:29	
Carbon tetrachloride	ND	3.8	0.81	1	B6J0781	10/28/2016	10/28/16 15:29	
Chlorobenzene	ND	3.8	0.49	1	B6J0781	10/28/2016	10/28/16 15:29	
Chloroethane	ND	3.8	1.4	1	B6J0781	10/28/2016	10/28/16 15:29	
Chloroform	ND	3.8	1.0	1	B6J0781	10/28/2016	10/28/16 15:29	
Chloromethane	ND	3.8	1.4	1	B6J0781	10/28/2016	10/28/16 15:29	
cis-1,2-Dichloroethene	ND	3.8	0.66	1	B6J0781	10/28/2016	10/28/16 15:29	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5

Lab ID: 1603732-07

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	3.8	0.61	1	B6J0781	10/28/2016	10/28/16 15:29	
Di-isopropyl ether	ND	3.8	0.39	1	B6J0781	10/28/2016	10/28/16 15:29	
Dibromochloromethane	ND	3.8	0.77	1	B6J0781	10/28/2016	10/28/16 15:29	
Dibromomethane	ND	3.8	0.76	1	B6J0781	10/28/2016	10/28/16 15:29	
Dichlorodifluoromethane	ND	3.8	1.7	1	B6J0781	10/28/2016	10/28/16 15:29	
Ethyl Acetate	ND	38	7.4	1	B6J0781	10/28/2016	10/28/16 15:29	
Ethyl Ether	ND	38	5.6	1	B6J0781	10/28/2016	10/28/16 15:29	
Ethyl tert-butyl ether	ND	3.8	1.0	1	B6J0781	10/28/2016	10/28/16 15:29	
Ethylbenzene	ND	3.8	0.50	1	B6J0781	10/28/2016	10/28/16 15:29	
Freon-113	ND	3.8	0.80	1	B6J0781	10/28/2016	10/28/16 15:29	
Hexachlorobutadiene	ND	3.8	0.59	1	B6J0781	10/28/2016	10/28/16 15:29	
Isopropylbenzene	ND	3.8	0.45	1	B6J0781	10/28/2016	10/28/16 15:29	
m,p-Xylene	ND	7.6	0.92	1	B6J0781	10/28/2016	10/28/16 15:29	
Methylene chloride	ND	3.8	1.1	1	B6J0781	10/28/2016	10/28/16 15:29	
MTBE	ND	3.8	0.39	1	B6J0781	10/28/2016	10/28/16 15:29	
n-Butylbenzene	ND	3.8	0.57	1	B6J0781	10/28/2016	10/28/16 15:29	
n-Propylbenzene	ND	3.8	0.42	1	B6J0781	10/28/2016	10/28/16 15:29	
Naphthalene	ND	3.8	0.91	1	B6J0781	10/28/2016	10/28/16 15:29	
o-Xylene	ND	3.8	0.66	1	B6J0781	10/28/2016	10/28/16 15:29	
sec-Butylbenzene	ND	3.8	0.61	1	B6J0781	10/28/2016	10/28/16 15:29	
Styrene	ND	3.8	0.63	1	B6J0781	10/28/2016	10/28/16 15:29	
tert-Amyl methyl ether	ND	3.8	1.1	1	B6J0781	10/28/2016	10/28/16 15:29	
tert-Butanol	ND	76	4.5	1	B6J0781	10/28/2016	10/28/16 15:29	
tert-Butylbenzene	ND	3.8	0.43	1	B6J0781	10/28/2016	10/28/16 15:29	
Tetrachloroethene	ND	3.8	0.50	1	B6J0781	10/28/2016	10/28/16 15:29	
Toluene	ND	3.8	0.61	1	B6J0781	10/28/2016	10/28/16 15:29	
trans-1,2-Dichloroethene	ND	3.8	1.1	1	B6J0781	10/28/2016	10/28/16 15:29	
trans-1,3-Dichloropropene	ND	3.8	0.48	1	B6J0781	10/28/2016	10/28/16 15:29	
Trichloroethene	ND	3.8	0.84	1	B6J0781	10/28/2016	10/28/16 15:29	
Trichlorofluoromethane	ND	3.8	0.68	1	B6J0781	10/28/2016	10/28/16 15:29	
Vinyl acetate	ND	38	4.4	1	B6J0781	10/28/2016	10/28/16 15:29	
Vinyl chloride	ND	3.8	1.6	1	B6J0781	10/28/2016	10/28/16 15:29	

Surrogate: 1,2-Dichloroethane-d4	106 %	12 - 186	B6J0781	10/28/2016	10/28/16 15:29
Surrogate: 4-Bromofluorobenzene	102 %	23 - 162	B6J0781	10/28/2016	10/28/16 15:29
Surrogate: Dibromofluoromethane	106 %	23 - 179	B6J0781	10/28/2016	10/28/16 15:29
Surrogate: Toluene-d8	102 %	26 - 164	B6J0781	10/28/2016	10/28/16 15:29



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5

Lab ID: 1603732-07

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 16:56	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:56	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:56	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:56	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 16:56	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 16:56	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 16:56	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 16:56	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 16:56	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:56	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:56	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 16:56	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 16:56	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:56	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:56	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 16:56	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 16:56	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 16:56	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 16:56	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 16:56	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 16:56	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 16:56	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 16:56	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:56	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 16:56	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 16:56	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 16:56	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:56	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 16:56	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:56	
Benzidine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 16:56	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 16:56	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 16:56	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 16:56	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 16:56	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 16:56	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 16:56	



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Report To : John Nordenstam

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Client Sample ID CL1-2-5.0-5.5

Lab ID: 1603732-07

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 16:56	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 16:56	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 16:56	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:56	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6J0735	10/26/2016	10/27/16 16:56	
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 16:56	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 16:56	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 16:56	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:56	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 16:56	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 16:56	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 16:56	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:56	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 16:56	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 16:56	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 16:56	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 16:56	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 16:56	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 16:56	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 16:56	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 16:56	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 16:56	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 16:56	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 16:56	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 16:56	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 16:56	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 16:56	
Phenol	ND	330	130	1	B6J0735	10/26/2016	10/27/16 16:56	
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 16:56	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 16:56	
Surrogate: 1,2-Dichlorobenzene-d4	77.3 %		22 - 107		B6J0735	10/26/2016	10/27/16 16:56	
Surrogate: 2,4,6-Tribromophenol	81.8 %		12 - 129		B6J0735	10/26/2016	10/27/16 16:56	
Surrogate: 2-Chlorophenol-d4	81.2 %		34 - 102		B6J0735	10/26/2016	10/27/16 16:56	
Surrogate: 2-Fluorobiphenyl	88.7 %		25 - 116		B6J0735	10/26/2016	10/27/16 16:56	
Surrogate: 2-Fluorophenol	71.0 %		32 - 101		B6J0735	10/26/2016	10/27/16 16:56	
Surrogate: 4-Terphenyl-d14	99.4 %		34 - 125		B6J0735	10/26/2016	10/27/16 16:56	
Surrogate: Nitrobenzene-d5	86.9 %		30 - 115		B6J0735	10/26/2016	10/27/16 16:56	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5

Lab ID: 1603732-07

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	79.2 %	34 - 104		B6J0735	10/26/2016	10/27/16 16:56	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.5-10.0

Lab ID: 1603732-08

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:46	
Arsenic	1.5	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:46	
Barium	87	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:46	
Beryllium	0.11	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:46	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:46	
Chromium	3.7	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:46	
Cobalt	1.9	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:46	
Copper	3.1	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:46	
Lead	1.0	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:46	
Molybdenum	0.51	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:46	J
Nickel	2.1	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:46	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:46	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:46	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:46	
Vanadium	14	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:46	
Zinc	8.9	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:46	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:18	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.4	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 13:28	
C23-C36	ND	1.0	1.0	1	B6J0780	10/27/2016	10/28/16 13:28	
Surrogate: p-Terphenyl	76.4 %		18 - 130		B6J0780	10/27/2016	10/28/16 13:28	



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Project Number : Roosevelt HS, 265642
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Client Sample ID CL1-2-5.5-10.0

Lab ID: 1603732-08

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.5	0.56	1	B6J0781	10/28/2016	10/28/16 15:48	
1,1,1-Trichloroethane	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 15:48	
1,1,2,2-Tetrachloroethane	ND	4.5	0.82	1	B6J0781	10/28/2016	10/28/16 15:48	
1,1,2-Trichloroethane	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 15:48	
1,1-Dichloroethane	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 15:48	
1,1-Dichloroethene	ND	4.5	0.62	1	B6J0781	10/28/2016	10/28/16 15:48	
1,1-Dichloropropene	ND	4.5	2.2	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2,3-Trichloropropane	ND	4.5	1.1	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2,3-Trichlorobenzene	ND	4.5	0.95	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2,4-Trichlorobenzene	ND	4.5	0.86	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2,4-Trimethylbenzene	ND	4.5	0.48	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2-Dibromo-3-chloropropane	ND	9.0	1.0	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2-Dibromoethane	ND	4.5	0.72	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2-Dichlorobenzene	ND	4.5	0.46	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2-Dichloroethane	ND	4.5	0.47	1	B6J0781	10/28/2016	10/28/16 15:48	
1,2-Dichloropropane	ND	4.5	0.68	1	B6J0781	10/28/2016	10/28/16 15:48	
1,3,5-Trimethylbenzene	ND	4.5	0.52	1	B6J0781	10/28/2016	10/28/16 15:48	
1,3-Dichlorobenzene	ND	4.5	0.56	1	B6J0781	10/28/2016	10/28/16 15:48	
1,3-Dichloropropane	ND	4.5	0.53	1	B6J0781	10/28/2016	10/28/16 15:48	
1,4-Dichlorobenzene	ND	4.5	0.66	1	B6J0781	10/28/2016	10/28/16 15:48	
2,2-Dichloropropane	ND	4.5	0.61	1	B6J0781	10/28/2016	10/28/16 15:48	
2-Chlorotoluene	ND	4.5	0.61	1	B6J0781	10/28/2016	10/28/16 15:48	
4-Chlorotoluene	ND	4.5	0.55	1	B6J0781	10/28/2016	10/28/16 15:48	
4-Isopropyltoluene	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 15:48	
Benzene	ND	4.5	0.53	1	B6J0781	10/28/2016	10/28/16 15:48	
Bromobenzene	ND	4.5	1.7	1	B6J0781	10/28/2016	10/28/16 15:48	
Bromochloromethane	ND	4.5	2.8	1	B6J0781	10/28/2016	10/28/16 15:48	
Bromodichloromethane	ND	4.5	0.90	1	B6J0781	10/28/2016	10/28/16 15:48	
Bromoform	ND	4.5	0.63	1	B6J0781	10/28/2016	10/28/16 15:48	
Bromomethane	ND	4.5	3.8	1	B6J0781	10/28/2016	10/28/16 15:48	
Carbon disulfide	ND	4.5	1.0	1	B6J0781	10/28/2016	10/28/16 15:48	
Carbon tetrachloride	ND	4.5	0.96	1	B6J0781	10/28/2016	10/28/16 15:48	
Chlorobenzene	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 15:48	
Chloroethane	ND	4.5	1.7	1	B6J0781	10/28/2016	10/28/16 15:48	
Chloroform	ND	4.5	1.2	1	B6J0781	10/28/2016	10/28/16 15:48	
Chloromethane	ND	4.5	1.7	1	B6J0781	10/28/2016	10/28/16 15:48	
cis-1,2-Dichloroethene	ND	4.5	0.78	1	B6J0781	10/28/2016	10/28/16 15:48	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.5-10.0

Lab ID: 1603732-08

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	4.5	0.71	1	B6J0781	10/28/2016	10/28/16 15:48	
Di-isopropyl ether	ND	4.5	0.46	1	B6J0781	10/28/2016	10/28/16 15:48	
Dibromochloromethane	ND	4.5	0.90	1	B6J0781	10/28/2016	10/28/16 15:48	
Dibromomethane	ND	4.5	0.89	1	B6J0781	10/28/2016	10/28/16 15:48	
Dichlorodifluoromethane	ND	4.5	2.0	1	B6J0781	10/28/2016	10/28/16 15:48	
Ethyl Acetate	ND	45	8.7	1	B6J0781	10/28/2016	10/28/16 15:48	
Ethyl Ether	ND	45	6.5	1	B6J0781	10/28/2016	10/28/16 15:48	
Ethyl tert-butyl ether	ND	4.5	1.2	1	B6J0781	10/28/2016	10/28/16 15:48	
Ethylbenzene	ND	4.5	0.59	1	B6J0781	10/28/2016	10/28/16 15:48	
Freon-113	ND	4.5	0.94	1	B6J0781	10/28/2016	10/28/16 15:48	
Hexachlorobutadiene	ND	4.5	0.70	1	B6J0781	10/28/2016	10/28/16 15:48	
Isopropylbenzene	ND	4.5	0.53	1	B6J0781	10/28/2016	10/28/16 15:48	
m,p-Xylene	ND	9.0	1.1	1	B6J0781	10/28/2016	10/28/16 15:48	
Methylene chloride	ND	4.5	1.2	1	B6J0781	10/28/2016	10/28/16 15:48	
MTBE	ND	4.5	0.45	1	B6J0781	10/28/2016	10/28/16 15:48	
n-Butylbenzene	ND	4.5	0.67	1	B6J0781	10/28/2016	10/28/16 15:48	
n-Propylbenzene	ND	4.5	0.49	1	B6J0781	10/28/2016	10/28/16 15:48	
Naphthalene	ND	4.5	1.1	1	B6J0781	10/28/2016	10/28/16 15:48	
o-Xylene	ND	4.5	0.77	1	B6J0781	10/28/2016	10/28/16 15:48	
sec-Butylbenzene	ND	4.5	0.71	1	B6J0781	10/28/2016	10/28/16 15:48	
Styrene	ND	4.5	0.74	1	B6J0781	10/28/2016	10/28/16 15:48	
tert-Amyl methyl ether	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 15:48	
tert-Butanol	ND	90	5.3	1	B6J0781	10/28/2016	10/28/16 15:48	
tert-Butylbenzene	ND	4.5	0.51	1	B6J0781	10/28/2016	10/28/16 15:48	
Tetrachloroethene	ND	4.5	0.58	1	B6J0781	10/28/2016	10/28/16 15:48	
Toluene	ND	4.5	0.71	1	B6J0781	10/28/2016	10/28/16 15:48	
trans-1,2-Dichloroethene	ND	4.5	1.3	1	B6J0781	10/28/2016	10/28/16 15:48	
trans-1,3-Dichloropropene	ND	4.5	0.57	1	B6J0781	10/28/2016	10/28/16 15:48	
Trichloroethene	ND	4.5	0.98	1	B6J0781	10/28/2016	10/28/16 15:48	
Trichlorofluoromethane	ND	4.5	0.80	1	B6J0781	10/28/2016	10/28/16 15:48	
Vinyl acetate	ND	45	5.1	1	B6J0781	10/28/2016	10/28/16 15:48	
Vinyl chloride	ND	4.5	1.8	1	B6J0781	10/28/2016	10/28/16 15:48	
Surrogate: 1,2-Dichloroethane-d4	108 %		12 - 186		B6J0781	10/28/2016	10/28/16 15:48	
Surrogate: 4-Bromofluorobenzene	101 %		23 - 162		B6J0781	10/28/2016	10/28/16 15:48	
Surrogate: Dibromofluoromethane	108 %		23 - 179		B6J0781	10/28/2016	10/28/16 15:48	
Surrogate: Toluene-d8	102 %		26 - 164		B6J0781	10/28/2016	10/28/16 15:48	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-2-5.5-10.0

Lab ID: 1603732-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6J0735	10/26/2016	10/27/16 17:23	
1,2-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 17:23	
1,3-Dichlorobenzene	ND	330	65	1	B6J0735	10/26/2016	10/27/16 17:23	
1,4-Dichlorobenzene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 17:23	
2,4,5-Trichlorophenol	ND	330	61	1	B6J0735	10/26/2016	10/27/16 17:23	
2,4,6-Trichlorophenol	ND	330	220	1	B6J0735	10/26/2016	10/27/16 17:23	
2,4-Dichlorophenol	ND	1600	120	1	B6J0735	10/26/2016	10/27/16 17:23	
2,4-Dimethylphenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 17:23	
2,4-Dinitrophenol	ND	1600	86	1	B6J0735	10/26/2016	10/27/16 17:23	
2,4-Dinitrotoluene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 17:23	
2,6-Dinitrotoluene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 17:23	
2-Chloronaphthalene	ND	330	59	1	B6J0735	10/26/2016	10/27/16 17:23	
2-Chlorophenol	ND	330	120	1	B6J0735	10/26/2016	10/27/16 17:23	
2-Methylnaphthalene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 17:23	
2-Methylphenol	ND	330	67	1	B6J0735	10/26/2016	10/27/16 17:23	
2-Nitroaniline	ND	1600	200	1	B6J0735	10/26/2016	10/27/16 17:23	
2-Nitrophenol	ND	330	110	1	B6J0735	10/26/2016	10/27/16 17:23	
3,3'-Dichlorobenzidine	ND	660	280	1	B6J0735	10/26/2016	10/27/16 17:23	
3-Nitroaniline	ND	1600	44	1	B6J0735	10/26/2016	10/27/16 17:23	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6J0735	10/26/2016	10/27/16 17:23	
4-Bromophenyl-phenylether	ND	330	50	1	B6J0735	10/26/2016	10/27/16 17:23	
4-Chloro-3-methylphenol	ND	660	110	1	B6J0735	10/26/2016	10/27/16 17:23	
4-Chloroaniline	ND	660	53	1	B6J0735	10/26/2016	10/27/16 17:23	
4-Chlorophenyl-phenylether	ND	330	48	1	B6J0735	10/26/2016	10/27/16 17:23	
4-Methylphenol	ND	330	66	1	B6J0735	10/26/2016	10/27/16 17:23	
4-Nitroaniline	ND	1600	290	1	B6J0735	10/26/2016	10/27/16 17:23	
4-Nitrophenol	ND	330	150	1	B6J0735	10/26/2016	10/27/16 17:23	
Acenaphthene	ND	330	48	1	B6J0735	10/26/2016	10/27/16 17:23	
Acenaphthylene	ND	330	51	1	B6J0735	10/26/2016	10/27/16 17:23	
Anthracene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 17:23	
Benzidine (M)	ND	1600	1400	1	B6J0735	10/26/2016	10/27/16 17:23	
Benzo(a)anthracene	ND	330	39	1	B6J0735	10/26/2016	10/27/16 17:23	
Benzo(a)pyrene	ND	330	45	1	B6J0735	10/26/2016	10/27/16 17:23	
Benzo(b)fluoranthene	ND	330	55	1	B6J0735	10/26/2016	10/27/16 17:23	
Benzo(g,h,i)perylene	ND	330	38	1	B6J0735	10/26/2016	10/27/16 17:23	
Benzo(k)fluoranthene	ND	330	52	1	B6J0735	10/26/2016	10/27/16 17:23	
Benzoic acid	ND	1600	890	1	B6J0735	10/26/2016	10/27/16 17:23	



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Client Sample ID CL1-2-5.5-10.0

Lab ID: 1603732-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6J0735	10/26/2016	10/27/16 17:23	
bis(2-chloroethoxy)methane	ND	330	59	1	B6J0735	10/26/2016	10/27/16 17:23	
bis(2-Chloroethyl)ether	ND	330	57	1	B6J0735	10/26/2016	10/27/16 17:23	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6J0735	10/26/2016	10/27/16 17:23	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6J0735	10/26/2016	10/27/16 17:23	
Butylbenzylphthalate	ND	330	250	1	B6J0735	10/26/2016	10/27/16 17:23	
Chrysene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 17:23	
Di-n-butylphthalate	ND	330	230	1	B6J0735	10/26/2016	10/27/16 17:23	
Di-n-octylphthalate	ND	330	48	1	B6J0735	10/26/2016	10/27/16 17:23	
Dibenz(a,h)anthracene	ND	330	43	1	B6J0735	10/26/2016	10/27/16 17:23	
Dibenzofuran	ND	330	55	1	B6J0735	10/26/2016	10/27/16 17:23	
Diethyl phthalate	ND	330	47	1	B6J0735	10/26/2016	10/27/16 17:23	
Dimethyl phthalate	ND	330	46	1	B6J0735	10/26/2016	10/27/16 17:23	
Fluoranthene	ND	330	47	1	B6J0735	10/26/2016	10/27/16 17:23	
Fluorene	ND	330	49	1	B6J0735	10/26/2016	10/27/16 17:23	
Hexachlorobenzene	ND	330	41	1	B6J0735	10/26/2016	10/27/16 17:23	
Hexachlorobutadiene	ND	660	61	1	B6J0735	10/26/2016	10/27/16 17:23	
Hexachlorocyclopentadiene	ND	660	64	1	B6J0735	10/26/2016	10/27/16 17:23	
Hexachloroethane	ND	330	71	1	B6J0735	10/26/2016	10/27/16 17:23	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6J0735	10/26/2016	10/27/16 17:23	
Isophorone	ND	330	57	1	B6J0735	10/26/2016	10/27/16 17:23	
N-Nitroso-di-n propylamine	ND	330	65	1	B6J0735	10/26/2016	10/27/16 17:23	
N-Nitrosodiphenylamine	ND	330	48	1	B6J0735	10/26/2016	10/27/16 17:23	
Naphthalene	ND	330	60	1	B6J0735	10/26/2016	10/27/16 17:23	
Nitrobenzene	ND	330	67	1	B6J0735	10/26/2016	10/27/16 17:23	
Pentachlorophenol	ND	1600	190	1	B6J0735	10/26/2016	10/27/16 17:23	
Phenanthrene	ND	330	46	1	B6J0735	10/26/2016	10/27/16 17:23	
Phenol	ND	330	130	1	B6J0735	10/26/2016	10/27/16 17:23	
Pyrene	ND	330	53	1	B6J0735	10/26/2016	10/27/16 17:23	
Pyridine	ND	1600	270	1	B6J0735	10/26/2016	10/27/16 17:23	
Surrogate: 1,2-Dichlorobenzene-d4	65.9 %		22 - 107		B6J0735	10/26/2016	10/27/16 17:23	
Surrogate: 2,4,6-Tribromophenol	77.0 %		12 - 129		B6J0735	10/26/2016	10/27/16 17:23	
Surrogate: 2-Chlorophenol-d4	71.8 %		34 - 102		B6J0735	10/26/2016	10/27/16 17:23	
Surrogate: 2-Fluorobiphenyl	75.5 %		25 - 116		B6J0735	10/26/2016	10/27/16 17:23	
Surrogate: 2-Fluorophenol	63.0 %		32 - 101		B6J0735	10/26/2016	10/27/16 17:23	
Surrogate: 4-Terphenyl-d14	82.2 %		34 - 125		B6J0735	10/26/2016	10/27/16 17:23	
Surrogate: Nitrobenzene-d5	74.0 %		30 - 115		B6J0735	10/26/2016	10/27/16 17:23	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.5-10.0

Lab ID: 1603732-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	69.1 %	34 - 104		B6J0735	10/26/2016	10/27/16 17:23	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID EB-CL-10-22-16

Lab ID: 1603732-09

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.010	0.0021	1	B6J0751	10/27/2016	10/28/16 12:24	
Arsenic	ND	0.010	0.0067	1	B6J0751	10/27/2016	10/28/16 12:24	
Barium	ND	0.0030	0.0008	1	B6J0751	10/27/2016	10/28/16 12:24	
Beryllium	ND	0.0030	0.0004	1	B6J0751	10/27/2016	10/28/16 12:24	
Cadmium	ND	0.0030	0.0002	1	B6J0751	10/27/2016	10/28/16 12:24	
Chromium	ND	0.0030	0.0016	1	B6J0751	10/27/2016	10/28/16 12:24	
Cobalt	ND	0.0030	0.0007	1	B6J0751	10/27/2016	10/28/16 12:24	
Copper	ND	0.0090	0.0023	1	B6J0751	10/27/2016	10/28/16 12:24	
Lead	ND	0.0050	0.0028	1	B6J0751	10/27/2016	10/28/16 12:24	
Molybdenum	ND	0.0050	0.0007	1	B6J0751	10/27/2016	10/28/16 12:24	
Nickel	ND	0.0050	0.0024	1	B6J0751	10/27/2016	10/28/16 12:24	
Selenium	0.0042	0.010	0.0034	1	B6J0751	10/27/2016	10/28/16 12:24	J
Silver	0.0007	0.0030	0.0006	1	B6J0751	10/27/2016	10/28/16 12:24	J
Thallium	ND	0.015	0.0026	1	B6J0751	10/27/2016	10/28/16 12:24	
Vanadium	ND	0.0030	0.0011	1	B6J0751	10/27/2016	10/28/16 12:24	
Zinc	0.0075	0.025	0.0021	1	B6J0751	10/27/2016	10/28/16 12:24	J

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: SB

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	0.13	1	B6J0754	10/27/2016	10/27/16 13:59	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	ND	0.05	0.05	1	B6J0774	10/27/2016	10/27/16 17:30	
C23-C36	ND	0.05	0.05	1	B6J0774	10/27/2016	10/27/16 17:30	
<i>Surrogate: p-Terphenyl</i>	<i>30.1 %</i>		<i>20 - 150</i>		B6J0774	10/27/2016	<i>10/27/16 17:30</i>	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID EB-CL-10-22-16

Lab ID: 1603732-09

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 20:44	
1,1,1-Trichloroethane	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 20:44	
1,1,2,2-Tetrachloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 20:44	
1,1,2-Trichloroethane	ND	0.50	0.12	1	B6J0753	10/27/2016	10/27/16 20:44	
1,1-Dichloroethane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:44	
1,1-Dichloroethene	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 20:44	
1,1-Dichloropropene	ND	0.50	0.30	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2,3-Trichloropropane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2,4-Trichlorobenzene	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2,4-Trimethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2-Dibromo-3-chloropropane	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2-Dibromoethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2-Dichlorobenzene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2-Dichloroethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 20:44	
1,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 20:44	
1,3,5-Trimethylbenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:44	
1,3-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:44	
1,3-Dichloropropane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 20:44	
1,4-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:44	
2,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 20:44	
2-Chlorotoluene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 20:44	
4-Chlorotoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:44	
4-Isopropyltoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:44	
Benzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:44	
Bromobenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:44	
Bromochloromethane	ND	0.50	0.36	1	B6J0753	10/27/2016	10/27/16 20:44	
Bromodichloromethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 20:44	
Bromoform	ND	0.50	0.10	1	B6J0753	10/27/2016	10/27/16 20:44	
Bromomethane	ND	0.50	0.28	1	B6J0753	10/27/2016	10/27/16 20:44	
Carbon disulfide	ND	1.0	0.31	1	B6J0753	10/27/2016	10/27/16 20:44	
Carbon tetrachloride	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:44	
Chlorobenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 20:44	
Chloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 20:44	
Chloroform	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:44	
Chloromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:44	
cis-1,2-Dichloroethene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:44	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID EB-CL-10-22-16

Lab ID: 1603732-09

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:44	
Di-isopropyl ether	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:44	
Dibromochloromethane	ND	0.50	0.13	1	B6J0753	10/27/2016	10/27/16 20:44	
Dibromomethane	ND	0.50	0.14	1	B6J0753	10/27/2016	10/27/16 20:44	
Dichlorodifluoromethane	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 20:44	
Ethyl Acetate	ND	10	3.4	1	B6J0753	10/27/2016	10/27/16 20:44	
Ethyl Ether	ND	10	1.5	1	B6J0753	10/27/2016	10/27/16 20:44	
Ethyl tert-butyl ether	ND	0.50	0.38	1	B6J0753	10/27/2016	10/27/16 20:44	
Ethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:44	
Freon-113	ND	0.50	0.29	1	B6J0753	10/27/2016	10/27/16 20:44	
Hexachlorobutadiene	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 20:44	
Isopropylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:44	
m,p-Xylene	ND	1.0	0.45	1	B6J0753	10/27/2016	10/27/16 20:44	
Methylene chloride	ND	1.0	0.30	1	B6J0753	10/27/2016	10/27/16 20:44	
MTBE	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 20:44	
n-Butylbenzene	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 20:44	
n-Propylbenzene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:44	
Naphthalene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:44	
o-Xylene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:44	
sec-Butylbenzene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 20:44	
Styrene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:44	
tert-Amyl methyl ether	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 20:44	
tert-Butanol	ND	10	1.2	1	B6J0753	10/27/2016	10/27/16 20:44	
tert-Butylbenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 20:44	
Tetrachloroethene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 20:44	
Toluene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:44	
trans-1,2-Dichloroethene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 20:44	
trans-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 20:44	
Trichloroethene	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 20:44	
Trichlorofluoromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 20:44	
Vinyl acetate	ND	10	1.7	1	B6J0753	10/27/2016	10/27/16 20:44	
Vinyl chloride	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 20:44	

Surrogate: 1,2-Dichloroethane-d4	104 %	51 - 157	B6J0753	10/27/2016	10/27/16 20:44
Surrogate: 4-Bromofluorobenzene	105 %	61 - 123	B6J0753	10/27/2016	10/27/16 20:44
Surrogate: Dibromofluoromethane	106 %	57 - 147	B6J0753	10/27/2016	10/27/16 20:44
Surrogate: Toluene-d8	106 %	61 - 119	B6J0753	10/27/2016	10/27/16 20:44



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID EB-CL-10-22-16

Lab ID: 1603732-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 21:05	
1,2-Dichlorobenzene	ND	10	2.2	1	B6J0681	10/25/2016	10/26/16 21:05	
1,3-Dichlorobenzene	ND	10	2.0	1	B6J0681	10/25/2016	10/26/16 21:05	
1,4-Dichlorobenzene	ND	10	2.1	1	B6J0681	10/25/2016	10/26/16 21:05	
2,4,5-Trichlorophenol	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
2,4,6-Trichlorophenol	ND	10	4.9	1	B6J0681	10/25/2016	10/26/16 21:05	
2,4-Dichlorophenol	ND	10	4.9	1	B6J0681	10/25/2016	10/26/16 21:05	
2,4-Dimethylphenol	ND	10	4.5	1	B6J0681	10/25/2016	10/26/16 21:05	
2,4-Dinitrophenol	ND	50	3.8	1	B6J0681	10/25/2016	10/26/16 21:05	
2,4-Dinitrotoluene	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
2,6-Dinitrotoluene	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 21:05	
2-Chloronaphthalene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 21:05	
2-Chlorophenol	ND	10	4.2	1	B6J0681	10/25/2016	10/26/16 21:05	
2-Methylnaphthalene	ND	10	2.9	1	B6J0681	10/25/2016	10/26/16 21:05	
2-Methylphenol	ND	10	2.2	1	B6J0681	10/25/2016	10/26/16 21:05	
2-Nitroaniline	ND	50	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
2-Nitrophenol	ND	10	4.9	1	B6J0681	10/25/2016	10/26/16 21:05	
3,3'-Dichlorobenzidine	ND	20	19	1	B6J0681	10/25/2016	10/26/16 21:05	
3-Nitroaniline	ND	50	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
4,6-Dinitro-2-methylphenol	ND	50	5.9	1	B6J0681	10/25/2016	10/26/16 21:05	
4-Bromophenyl-phenylether	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 21:05	
4-Chloro-3-methylphenol	ND	50	5.4	1	B6J0681	10/25/2016	10/26/16 21:05	
4-Chloroaniline	ND	20	3.4	1	B6J0681	10/25/2016	10/26/16 21:05	
4-Chlorophenyl-phenylether	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
4-Methylphenol	ND	10	2.3	1	B6J0681	10/25/2016	10/26/16 21:05	
4-Nitroaniline	ND	20	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
4-Nitrophenol	ND	50	2.8	1	B6J0681	10/25/2016	10/26/16 21:05	
Acenaphthene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 21:05	
Acenaphthylene	ND	10	2.5	1	B6J0681	10/25/2016	10/26/16 21:05	
Anthracene	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
Benzidine (M)	ND	50	44	1	B6J0681	10/25/2016	10/26/16 21:05	
Benzo(a)anthracene	ND	10	3.5	1	B6J0681	10/25/2016	10/26/16 21:05	
Benzo(a)pyrene	ND	10	4.4	1	B6J0681	10/25/2016	10/26/16 21:05	
Benzo(b)fluoranthene	ND	10	4.5	1	B6J0681	10/25/2016	10/26/16 21:05	
Benzo(g,h,i)perylene	ND	10	4.0	1	B6J0681	10/25/2016	10/26/16 21:05	
Benzo(k)fluoranthene	ND	10	4.4	1	B6J0681	10/25/2016	10/26/16 21:05	
Benzoic acid	ND	50	17	1	B6J0681	10/25/2016	10/26/16 21:05	



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID EB-CL-10-22-16

Lab ID: 1603732-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	20	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
bis(2-chloroethoxy)methane	ND	10	2.7	1	B6J0681	10/25/2016	10/26/16 21:05	
bis(2-Chloroethyl)ether	ND	10	2.4	1	B6J0681	10/25/2016	10/26/16 21:05	
bis(2-chloroisopropyl)ether	ND	10	2.6	1	B6J0681	10/25/2016	10/26/16 21:05	
bis(2-ethylhexyl)phthalate	ND	10	3.3	1	B6J0681	10/25/2016	10/26/16 21:05	
Butylbenzylphthalate	ND	10	3.3	1	B6J0681	10/25/2016	10/26/16 21:05	
Chrysene	ND	10	3.5	1	B6J0681	10/25/2016	10/26/16 21:05	
Di-n-butylphthalate	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 21:05	
Di-n-octylphthalate	ND	10	3.7	1	B6J0681	10/25/2016	10/26/16 21:05	
Dibenz(a,h)anthracene	ND	10	4.0	1	B6J0681	10/25/2016	10/26/16 21:05	
Dibenzofuran	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
Diethyl phthalate	ND	10	3.4	1	B6J0681	10/25/2016	10/26/16 21:05	
Dimethyl phthalate	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 21:05	
Fluoranthene	ND	10	3.1	1	B6J0681	10/25/2016	10/26/16 21:05	
Fluorene	ND	10	2.8	1	B6J0681	10/25/2016	10/26/16 21:05	
Hexachlorobenzene	ND	10	3.4	1	B6J0681	10/25/2016	10/26/16 21:05	
Hexachlorobutadiene	ND	20	2.8	1	B6J0681	10/25/2016	10/26/16 21:05	
Hexachlorocyclopentadiene	ND	10	2.1	1	B6J0681	10/25/2016	10/26/16 21:05	
Hexachloroethane	ND	10	2.1	1	B6J0681	10/25/2016	10/26/16 21:05	
Indeno(1,2,3-cd)pyrene	ND	10	4.3	1	B6J0681	10/25/2016	10/26/16 21:05	
Isophorone	ND	10	2.6	1	B6J0681	10/25/2016	10/26/16 21:05	
N-Nitroso-di-n propylamine	ND	10	2.3	1	B6J0681	10/25/2016	10/26/16 21:05	
N-Nitrosodiphenylamine	ND	10	3.3	1	B6J0681	10/25/2016	10/26/16 21:05	
Naphthalene	ND	10	2.3	1	B6J0681	10/25/2016	10/26/16 21:05	
Nitrobenzene	ND	10	2.7	1	B6J0681	10/25/2016	10/26/16 21:05	
Pentachlorophenol	ND	50	3.6	1	B6J0681	10/25/2016	10/26/16 21:05	
Phenanthrene	ND	10	3.2	1	B6J0681	10/25/2016	10/26/16 21:05	
Phenol	ND	10	2.5	1	B6J0681	10/25/2016	10/26/16 21:05	
Pyrene	ND	10	3.0	1	B6J0681	10/25/2016	10/26/16 21:05	
Pyridine	ND	50	10	1	B6J0681	10/25/2016	10/26/16 21:05	
Surrogate: 1,2-Dichlorobenzene-d4	61.1 %		17 - 101		B6J0681	10/25/2016	10/26/16 21:05	
Surrogate: 2,4,6-Tribromophenol	82.1 %		38 - 101		B6J0681	10/25/2016	10/26/16 21:05	
Surrogate: 2-Chlorophenol-d4	56.4 %		21 - 86		B6J0681	10/25/2016	10/26/16 21:05	
Surrogate: 2-Fluorobiphenyl	70.2 %		29 - 109		B6J0681	10/25/2016	10/26/16 21:05	
Surrogate: 2-Fluorophenol	31.6 %		9 - 58		B6J0681	10/25/2016	10/26/16 21:05	
Surrogate: 4-Terphenyl-d14	103 %		49 - 122		B6J0681	10/25/2016	10/26/16 21:05	
Surrogate: Nitrobenzene-d5	65.7 %		19 - 111		B6J0681	10/25/2016	10/26/16 21:05	



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9685 Research Drive

Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID EB-CL-10-22-16

Lab ID: 1603732-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	21.6 %	6 - 50		B6J0681	10/25/2016	10/26/16 21:05	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID Trip Blank

Lab ID: 1603732-10

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.05	0.05	1	B6J0743	10/27/2016	10/27/16 11:48	
Surrogate: 4-Bromofluorobenzene	110 %		70 - 130		B6J0743	10/27/2016	10/27/16 11:48	

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 21:08	
1,1,1-Trichloroethane	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 21:08	
1,1,2,2-Tetrachloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 21:08	
1,1,2-Trichloroethane	ND	0.50	0.12	1	B6J0753	10/27/2016	10/27/16 21:08	
1,1-Dichloroethane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 21:08	
1,1-Dichloroethene	ND	0.50	0.18	1	B6J0753	10/27/2016	10/27/16 21:08	
1,1-Dichloropropene	ND	0.50	0.30	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2,3-Trichloropropane	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2,4-Trichlorobenzene	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2,4-Trimethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2-Dibromo-3-chloropropane	ND	0.50	0.26	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2-Dibromoethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2-Dichlorobenzene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2-Dichloroethane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 21:08	
1,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 21:08	
1,3,5-Trimethylbenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 21:08	
1,3-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 21:08	
1,3-Dichloropropane	ND	0.50	0.15	1	B6J0753	10/27/2016	10/27/16 21:08	
1,4-Dichlorobenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 21:08	
2,2-Dichloropropane	ND	0.50	0.35	1	B6J0753	10/27/2016	10/27/16 21:08	
2-Chlorotoluene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 21:08	
4-Chlorotoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 21:08	
4-Isopropyltoluene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 21:08	
Benzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 21:08	
Bromobenzene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 21:08	
Bromochloromethane	ND	0.50	0.36	1	B6J0753	10/27/2016	10/27/16 21:08	
Bromodichloromethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 21:08	
Bromoform	ND	0.50	0.10	1	B6J0753	10/27/2016	10/27/16 21:08	
Bromomethane	ND	0.50	0.28	1	B6J0753	10/27/2016	10/27/16 21:08	



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Irvine, CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID Trip Blank

Lab ID: 1603732-10

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon disulfide	ND	1.0	0.31	1	B6J0753	10/27/2016	10/27/16 21:08	
Carbon tetrachloride	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 21:08	
Chlorobenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 21:08	
Chloroethane	ND	0.50	0.17	1	B6J0753	10/27/2016	10/27/16 21:08	
Chloroform	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 21:08	
Chloromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 21:08	
cis-1,2-Dichloroethene	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 21:08	
cis-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 21:08	
Di-isopropyl ether	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 21:08	
Dibromochloromethane	ND	0.50	0.13	1	B6J0753	10/27/2016	10/27/16 21:08	
Dibromomethane	ND	0.50	0.14	1	B6J0753	10/27/2016	10/27/16 21:08	
Dichlorodifluoromethane	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 21:08	
Ethyl Acetate	ND	10	3.4	1	B6J0753	10/27/2016	10/27/16 21:08	
Ethyl Ether	ND	10	1.5	1	B6J0753	10/27/2016	10/27/16 21:08	
Ethyl tert-butyl ether	ND	0.50	0.38	1	B6J0753	10/27/2016	10/27/16 21:08	
Ethylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 21:08	
Freon-113	ND	0.50	0.29	1	B6J0753	10/27/2016	10/27/16 21:08	
Hexachlorobutadiene	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 21:08	
Isopropylbenzene	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 21:08	
m,p-Xylene	ND	1.0	0.45	1	B6J0753	10/27/2016	10/27/16 21:08	
Methylene chloride	ND	1.0	0.30	1	B6J0753	10/27/2016	10/27/16 21:08	
MTBE	ND	0.50	0.16	1	B6J0753	10/27/2016	10/27/16 21:08	
n-Butylbenzene	ND	0.50	0.31	1	B6J0753	10/27/2016	10/27/16 21:08	
n-Propylbenzene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 21:08	
Naphthalene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 21:08	
o-Xylene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 21:08	
sec-Butylbenzene	ND	0.50	0.25	1	B6J0753	10/27/2016	10/27/16 21:08	
Styrene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 21:08	
tert-Amyl methyl ether	ND	0.50	0.34	1	B6J0753	10/27/2016	10/27/16 21:08	
tert-Butanol	ND	10	1.2	1	B6J0753	10/27/2016	10/27/16 21:08	
tert-Butylbenzene	ND	0.50	0.22	1	B6J0753	10/27/2016	10/27/16 21:08	
Tetrachloroethene	ND	0.50	0.24	1	B6J0753	10/27/2016	10/27/16 21:08	
Toluene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 21:08	
trans-1,2-Dichloroethene	ND	0.50	0.21	1	B6J0753	10/27/2016	10/27/16 21:08	
trans-1,3-Dichloropropene	ND	0.50	0.20	1	B6J0753	10/27/2016	10/27/16 21:08	
Trichloroethene	ND	0.50	0.47	1	B6J0753	10/27/2016	10/27/16 21:08	
Trichlorofluoromethane	ND	0.50	0.23	1	B6J0753	10/27/2016	10/27/16 21:08	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID Trip Blank

Lab ID: 1603732-10

Volatile Organic Compounds by EPA 8260B

Analyst: QD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl acetate	ND	10	1.7	1	B6J0753	10/27/2016	10/27/16 21:08	
Vinyl chloride	ND	0.50	0.19	1	B6J0753	10/27/2016	10/27/16 21:08	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>105 %</i>		<i>51 - 157</i>		B6J0753	10/27/2016	<i>10/27/16 21:08</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>105 %</i>		<i>61 - 123</i>		B6J0753	10/27/2016	<i>10/27/16 21:08</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>99.4 %</i>		<i>57 - 147</i>		B6J0753	10/27/2016	<i>10/27/16 21:08</i>	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>		<i>61 - 119</i>		B6J0753	10/27/2016	<i>10/27/16 21:08</i>	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5 Duplicate
Lab ID: 1603732-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6K0229	11/05/2016	11/07/16 11:57	
Arsenic	2.5	1.0	0.70	1	B6K0229	11/05/2016	11/07/16 11:57	
Barium	54	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:57	
Beryllium	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 11:57	
Cadmium	0.09	1.0	0.09	1	B6K0229	11/05/2016	11/07/16 11:57	J
Chromium	12	1.0	0.12	1	B6K0229	11/05/2016	11/07/16 11:57	
Cobalt	8.4	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:57	
Copper	5.4	2.0	0.11	1	B6K0229	11/05/2016	11/07/16 11:57	
Lead	1.9	1.0	0.11	1	B6K0229	11/05/2016	11/07/16 11:57	
Molybdenum	ND	1.0	0.13	1	B6K0229	11/05/2016	11/07/16 11:57	
Nickel	5.6	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 11:57	
Selenium	ND	1.0	0.88	1	B6K0229	11/05/2016	11/07/16 11:57	
Silver	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 11:57	
Thallium	ND	1.0	0.42	1	B6K0229	11/05/2016	11/07/16 11:57	
Vanadium	34	1.0	0.19	1	B6K0229	11/05/2016	11/07/16 11:57	
Zinc	15	1.0	0.18	1	B6K0229	11/05/2016	11/07/16 11:57	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6K0224	11/05/2016	11/07/16 08:29	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.2	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:04	
C23-C36	ND	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:04	
Surrogate: <i>p</i> -Terphenyl	56.9 %		18 - 130		B6K0069	11/01/2016	11/01/16 20:04	



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Irvine, CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5 Duplicate

Lab ID: 1603732-11

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	3.8	0.48	1	B6K0002	11/01/2016	11/01/16 15:01	
1,1,1-Trichloroethane	ND	3.8	0.48	1	B6K0002	11/01/2016	11/01/16 15:01	
1,1,2,2-Tetrachloroethane	ND	3.8	0.69	1	B6K0002	11/01/2016	11/01/16 15:01	
1,1,2-Trichloroethane	ND	3.8	1.1	1	B6K0002	11/01/2016	11/01/16 15:01	
1,1-Dichloroethane	ND	3.8	1.1	1	B6K0002	11/01/2016	11/01/16 15:01	
1,1-Dichloroethene	ND	3.8	0.53	1	B6K0002	11/01/2016	11/01/16 15:01	
1,1-Dichloropropene	ND	3.8	1.9	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2,3-Trichloropropane	ND	3.8	0.93	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2,3-Trichlorobenzene	ND	3.8	0.80	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2,4-Trichlorobenzene	ND	3.8	0.73	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2,4-Trimethylbenzene	ND	3.8	0.40	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2-Dibromo-3-chloropropane	ND	7.6	0.85	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2-Dibromoethane	ND	3.8	0.61	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2-Dichlorobenzene	ND	3.8	0.39	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2-Dichloroethane	ND	3.8	0.40	1	B6K0002	11/01/2016	11/01/16 15:01	
1,2-Dichloropropane	ND	3.8	0.58	1	B6K0002	11/01/2016	11/01/16 15:01	
1,3,5-Trimethylbenzene	ND	3.8	0.44	1	B6K0002	11/01/2016	11/01/16 15:01	
1,3-Dichlorobenzene	ND	3.8	0.48	1	B6K0002	11/01/2016	11/01/16 15:01	
1,3-Dichloropropane	ND	3.8	0.45	1	B6K0002	11/01/2016	11/01/16 15:01	
1,4-Dichlorobenzene	ND	3.8	0.56	1	B6K0002	11/01/2016	11/01/16 15:01	
2,2-Dichloropropane	ND	3.8	0.52	1	B6K0002	11/01/2016	11/01/16 15:01	
2-Chlorotoluene	ND	3.8	0.51	1	B6K0002	11/01/2016	11/01/16 15:01	
4-Chlorotoluene	ND	3.8	0.47	1	B6K0002	11/01/2016	11/01/16 15:01	
4-Isopropyltoluene	ND	3.8	0.48	1	B6K0002	11/01/2016	11/01/16 15:01	
Benzene	ND	3.8	0.45	1	B6K0002	11/01/2016	11/01/16 15:01	
Bromobenzene	ND	3.8	1.5	1	B6K0002	11/01/2016	11/01/16 15:01	
Bromochloromethane	ND	3.8	2.4	1	B6K0002	11/01/2016	11/01/16 15:01	
Bromodichloromethane	ND	3.8	0.76	1	B6K0002	11/01/2016	11/01/16 15:01	
Bromoform	ND	3.8	0.53	1	B6K0002	11/01/2016	11/01/16 15:01	
Bromomethane	ND	3.8	3.2	1	B6K0002	11/01/2016	11/01/16 15:01	
Carbon disulfide	ND	3.8	0.88	1	B6K0002	11/01/2016	11/01/16 15:01	
Carbon tetrachloride	ND	3.8	0.81	1	B6K0002	11/01/2016	11/01/16 15:01	
Chlorobenzene	ND	3.8	0.48	1	B6K0002	11/01/2016	11/01/16 15:01	
Chloroethane	ND	3.8	1.4	1	B6K0002	11/01/2016	11/01/16 15:01	
Chloroform	ND	3.8	1.0	1	B6K0002	11/01/2016	11/01/16 15:01	
Chloromethane	ND	3.8	1.4	1	B6K0002	11/01/2016	11/01/16 15:01	
cis-1,2-Dichloroethene	ND	3.8	0.66	1	B6K0002	11/01/2016	11/01/16 15:01	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5 Duplicate
Lab ID: 1603732-11

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	3.8	0.60	1	B6K0002	11/01/2016	11/01/16 15:01	
Di-isopropyl ether	ND	3.8	0.39	1	B6K0002	11/01/2016	11/01/16 15:01	
Dibromochloromethane	ND	3.8	0.76	1	B6K0002	11/01/2016	11/01/16 15:01	
Dibromomethane	ND	3.8	0.75	1	B6K0002	11/01/2016	11/01/16 15:01	
Dichlorodifluoromethane	ND	3.8	1.7	1	B6K0002	11/01/2016	11/01/16 15:01	
Ethyl Acetate	ND	38	7.4	1	B6K0002	11/01/2016	11/01/16 15:01	
Ethyl Ether	ND	38	5.5	1	B6K0002	11/01/2016	11/01/16 15:01	
Ethyl tert-butyl ether	ND	3.8	1.0	1	B6K0002	11/01/2016	11/01/16 15:01	
Ethylbenzene	ND	3.8	0.49	1	B6K0002	11/01/2016	11/01/16 15:01	
Freon-113	ND	3.8	0.80	1	B6K0002	11/01/2016	11/01/16 15:01	
Hexachlorobutadiene	ND	3.8	0.59	1	B6K0002	11/01/2016	11/01/16 15:01	
Isopropylbenzene	ND	3.8	0.45	1	B6K0002	11/01/2016	11/01/16 15:01	
m,p-Xylene	ND	7.6	0.92	1	B6K0002	11/01/2016	11/01/16 15:01	
Methylene chloride	ND	3.8	1.0	1	B6K0002	11/01/2016	11/01/16 15:01	
MTBE	ND	3.8	0.38	1	B6K0002	11/01/2016	11/01/16 15:01	
n-Butylbenzene	ND	3.8	0.57	1	B6K0002	11/01/2016	11/01/16 15:01	
n-Propylbenzene	ND	3.8	0.42	1	B6K0002	11/01/2016	11/01/16 15:01	
Naphthalene	ND	3.8	0.90	1	B6K0002	11/01/2016	11/01/16 15:01	
o-Xylene	ND	3.8	0.65	1	B6K0002	11/01/2016	11/01/16 15:01	
sec-Butylbenzene	ND	3.8	0.60	1	B6K0002	11/01/2016	11/01/16 15:01	
Styrene	ND	3.8	0.62	1	B6K0002	11/01/2016	11/01/16 15:01	
tert-Amyl methyl ether	ND	3.8	1.1	1	B6K0002	11/01/2016	11/01/16 15:01	
tert-Butanol	ND	76	4.5	1	B6K0002	11/01/2016	11/01/16 15:01	
tert-Butylbenzene	ND	3.8	0.43	1	B6K0002	11/01/2016	11/01/16 15:01	
Tetrachloroethene	ND	3.8	0.49	1	B6K0002	11/01/2016	11/01/16 15:01	
Toluene	ND	3.8	0.60	1	B6K0002	11/01/2016	11/01/16 15:01	
trans-1,2-Dichloroethene	ND	3.8	1.1	1	B6K0002	11/01/2016	11/01/16 15:01	
trans-1,3-Dichloropropene	ND	3.8	0.48	1	B6K0002	11/01/2016	11/01/16 15:01	
Trichloroethene	ND	3.8	0.83	1	B6K0002	11/01/2016	11/01/16 15:01	
Trichlorofluoromethane	ND	3.8	0.68	1	B6K0002	11/01/2016	11/01/16 15:01	
Vinyl acetate	ND	38	4.3	1	B6K0002	11/01/2016	11/01/16 15:01	
Vinyl chloride	ND	3.8	1.6	1	B6K0002	11/01/2016	11/01/16 15:01	
Surrogate: 1,2-Dichloroethane-d4	109 %		12 - 186		B6K0002	11/01/2016	11/01/16 15:01	
Surrogate: 4-Bromofluorobenzene	102 %		23 - 162		B6K0002	11/01/2016	11/01/16 15:01	
Surrogate: Dibromofluoromethane	110 %		23 - 179		B6K0002	11/01/2016	11/01/16 15:01	
Surrogate: Toluene-d8	106 %		26 - 164		B6K0002	11/01/2016	11/01/16 15:01	



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Irvine, CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5 Duplicate

Lab ID: 1603732-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	71	1	B6K0118	11/02/2016	11/04/16 04:45	
1,2-Dichlorobenzene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 04:45	
1,3-Dichlorobenzene	ND	330	65	1	B6K0118	11/02/2016	11/04/16 04:45	
1,4-Dichlorobenzene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 04:45	
2,4,5-Trichlorophenol	ND	330	61	1	B6K0118	11/02/2016	11/04/16 04:45	
2,4,6-Trichlorophenol	ND	330	220	1	B6K0118	11/02/2016	11/04/16 04:45	
2,4-Dichlorophenol	ND	1600	120	1	B6K0118	11/02/2016	11/04/16 04:45	
2,4-Dimethylphenol	ND	330	120	1	B6K0118	11/02/2016	11/04/16 04:45	
2,4-Dinitrophenol	ND	1600	86	1	B6K0118	11/02/2016	11/04/16 04:45	
2,4-Dinitrotoluene	ND	330	46	1	B6K0118	11/02/2016	11/04/16 04:45	
2,6-Dinitrotoluene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 04:45	
2-Chloronaphthalene	ND	330	59	1	B6K0118	11/02/2016	11/04/16 04:45	
2-Chlorophenol	ND	330	120	1	B6K0118	11/02/2016	11/04/16 04:45	
2-Methylnaphthalene	ND	330	67	1	B6K0118	11/02/2016	11/04/16 04:45	
2-Methylphenol	ND	330	67	1	B6K0118	11/02/2016	11/04/16 04:45	
2-Nitroaniline	ND	1600	200	1	B6K0118	11/02/2016	11/04/16 04:45	
2-Nitrophenol	ND	330	110	1	B6K0118	11/02/2016	11/04/16 04:45	
3,3'-Dichlorobenzidine	ND	660	280	1	B6K0118	11/02/2016	11/04/16 04:45	
3-Nitroaniline	ND	1600	44	1	B6K0118	11/02/2016	11/04/16 04:45	
4,6-Dinitro-2-methylphenol	ND	1600	300	1	B6K0118	11/02/2016	11/04/16 04:45	
4-Bromophenyl-phenylether	ND	330	50	1	B6K0118	11/02/2016	11/04/16 04:45	
4-Chloro-3-methylphenol	ND	660	110	1	B6K0118	11/02/2016	11/04/16 04:45	
4-Chloroaniline	ND	660	53	1	B6K0118	11/02/2016	11/04/16 04:45	
4-Chlorophenyl-phenylether	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:45	
4-Methylphenol	ND	330	66	1	B6K0118	11/02/2016	11/04/16 04:45	
4-Nitroaniline	ND	1600	290	1	B6K0118	11/02/2016	11/04/16 04:45	
4-Nitrophenol	ND	330	150	1	B6K0118	11/02/2016	11/04/16 04:45	
Acenaphthene	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:45	
Acenaphthylene	ND	330	51	1	B6K0118	11/02/2016	11/04/16 04:45	
Anthracene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 04:45	
Benzo(a)anthracene	ND	1600	1400	1	B6K0118	11/02/2016	11/04/16 04:45	
Benzo(a)pyrene	ND	330	39	1	B6K0118	11/02/2016	11/04/16 04:45	
Benzo(b)fluoranthene	ND	330	45	1	B6K0118	11/02/2016	11/04/16 04:45	
Benzo(g,h,i)perylene	ND	330	55	1	B6K0118	11/02/2016	11/04/16 04:45	
Benzo(k)fluoranthene	ND	330	38	1	B6K0118	11/02/2016	11/04/16 04:45	
Benzoic acid	ND	330	52	1	B6K0118	11/02/2016	11/04/16 04:45	
	ND	1600	890	1	B6K0118	11/02/2016	11/04/16 04:45	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5 Duplicate
Lab ID: 1603732-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	67	1	B6K0118	11/02/2016	11/04/16 04:45	
bis(2-chloroethoxy)methane	ND	330	59	1	B6K0118	11/02/2016	11/04/16 04:45	
bis(2-Chloroethyl)ether	ND	330	57	1	B6K0118	11/02/2016	11/04/16 04:45	
bis(2-chloroisopropyl)ether	ND	330	65	1	B6K0118	11/02/2016	11/04/16 04:45	
bis(2-ethylhexyl)phthalate	ND	330	83	1	B6K0118	11/02/2016	11/04/16 04:45	
Butylbenzylphthalate	ND	330	250	1	B6K0118	11/02/2016	11/04/16 04:45	
Chrysene	ND	330	43	1	B6K0118	11/02/2016	11/04/16 04:45	
Di-n-butylphthalate	ND	330	230	1	B6K0118	11/02/2016	11/04/16 04:45	
Di-n-octylphthalate	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:45	
Dibenz(a,h)anthracene	ND	330	43	1	B6K0118	11/02/2016	11/04/16 04:45	
Dibenzofuran	ND	330	55	1	B6K0118	11/02/2016	11/04/16 04:45	
Diethyl phthalate	ND	330	47	1	B6K0118	11/02/2016	11/04/16 04:45	
Dimethyl phthalate	ND	330	46	1	B6K0118	11/02/2016	11/04/16 04:45	
Fluoranthene	ND	330	47	1	B6K0118	11/02/2016	11/04/16 04:45	
Fluorene	ND	330	49	1	B6K0118	11/02/2016	11/04/16 04:45	
Hexachlorobenzene	ND	330	41	1	B6K0118	11/02/2016	11/04/16 04:45	
Hexachlorobutadiene	ND	660	61	1	B6K0118	11/02/2016	11/04/16 04:45	
Hexachlorocyclopentadiene	ND	660	64	1	B6K0118	11/02/2016	11/04/16 04:45	
Hexachloroethane	ND	330	71	1	B6K0118	11/02/2016	11/04/16 04:45	
Indeno(1,2,3-cd)pyrene	ND	330	44	1	B6K0118	11/02/2016	11/04/16 04:45	
Isophorone	ND	330	57	1	B6K0118	11/02/2016	11/04/16 04:45	
N-Nitroso-di-n propylamine	ND	330	65	1	B6K0118	11/02/2016	11/04/16 04:45	
N-Nitrosodiphenylamine	ND	330	48	1	B6K0118	11/02/2016	11/04/16 04:45	
Naphthalene	ND	330	60	1	B6K0118	11/02/2016	11/04/16 04:45	
Nitrobenzene	ND	330	67	1	B6K0118	11/02/2016	11/04/16 04:45	
Pentachlorophenol	ND	1600	190	1	B6K0118	11/02/2016	11/04/16 04:45	
Phenanthrene	ND	330	46	1	B6K0118	11/02/2016	11/04/16 04:45	
Phenol	ND	330	130	1	B6K0118	11/02/2016	11/04/16 04:45	
Pyrene	ND	330	53	1	B6K0118	11/02/2016	11/04/16 04:45	
Pyridine	ND	1600	270	1	B6K0118	11/02/2016	11/04/16 04:45	
Surrogate: 1,2-Dichlorobenzene-d4	69.2 %		22 - 107		B6K0118	11/02/2016	11/04/16 04:45	
Surrogate: 2,4,6-Tribromophenol	87.4 %		12 - 129		B6K0118	11/02/2016	11/04/16 04:45	
Surrogate: 2-Chlorophenol-d4	68.6 %		34 - 102		B6K0118	11/02/2016	11/04/16 04:45	
Surrogate: 2-Fluorobiphenyl	72.8 %		25 - 116		B6K0118	11/02/2016	11/04/16 04:45	
Surrogate: 2-Fluorophenol	62.1 %		32 - 101		B6K0118	11/02/2016	11/04/16 04:45	
Surrogate: 4-Terphenyl-d14	95.1 %		34 - 125		B6K0118	11/02/2016	11/04/16 04:45	
Surrogate: Nitrobenzene-d5	66.8 %		30 - 115		B6K0118	11/02/2016	11/04/16 04:45	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Client Sample ID CL1-2-5.0-5.5 Duplicate
Lab ID: 1603732-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	68.2 %	34 - 104		B6K0118	11/02/2016	11/04/16 04:45	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W

Blank (B6J0751-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	ND	0.010			NR				
Arsenic	ND	0.010			NR				
Barium	ND	0.0030			NR				
Beryllium	ND	0.0030			NR				
Cadmium	ND	0.0030			NR				
Chromium	ND	0.0030			NR				
Cobalt	ND	0.0030			NR				
Copper	ND	0.0090			NR				
Lead	ND	0.0050			NR				
Molybdenum	ND	0.0050			NR				
Nickel	ND	0.0050			NR				
Selenium	0.004270	0.010			NR				J
Silver	ND	0.0030			NR				
Thallium	ND	0.015			NR				
Vanadium	ND	0.0030			NR				
Zinc	ND	0.025			NR				

LCS (B6J0751-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	0.898377	0.010	1.00000		89.8	80 - 120
Arsenic	0.895492	0.010	1.00000		89.5	80 - 120
Barium	0.964396	0.0030	1.00000		96.4	80 - 120
Beryllium	0.961408	0.0030	1.00000		96.1	80 - 120
Cadmium	0.928815	0.0030	1.00000		92.9	80 - 120
Chromium	0.965730	0.0030	1.00000		96.6	80 - 120
Cobalt	0.945595	0.0030	1.00000		94.6	80 - 120
Copper	1.00626	0.0090	1.00000		101	80 - 120
Lead	0.939372	0.0050	1.00000		93.9	80 - 120
Molybdenum	0.938843	0.0050	1.00000		93.9	80 - 120
Nickel	0.932543	0.0050	1.00000		93.3	80 - 120
Selenium	0.865757	0.010	1.00000		86.6	80 - 120
Silver	0.970209	0.0030	1.00000		97.0	80 - 120
Thallium	0.949487	0.015	1.00000		94.9	80 - 120
Vanadium	0.956655	0.0030	1.00000		95.7	80 - 120
Zinc	0.905008	0.025	1.00000		90.5	80 - 120

Duplicate (B6J0751-DUP1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	0.028335	0.010	0.028077	NR	0.915	20	
Arsenic	0.031794	0.010	0.030741	NR	3.37	20	
Barium	0.046911	0.0030	0.047026	NR	0.243	20	
Beryllium	0.000619	0.0030	0.000723	NR	15.4	20	J



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W (continued)

Duplicate (B6J0751-DUP1) - Continued

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Cadmium	0.008692	0.0030		0.008895	NR		2.31	20	
Chromium	0.226469	0.0030		0.229568	NR		1.36	20	
Cobalt	0.009954	0.0030		0.010281	NR		3.24	20	
Copper	0.066991	0.0090		0.068634	NR		2.42	20	
Lead	ND	0.0050		ND	NR			20	
Molybdenum	0.135758	0.0050		0.138068	NR		1.69	20	
Nickel	0.867118	0.0050		0.876803	NR		1.11	20	
Selenium	0.007675	0.010		4.6609E-3	NR		48.9	20	R, J
Silver	ND	0.0030		ND	NR			20	
Thallium	ND	0.015		ND	NR			20	
Vanadium	0.178865	0.0030		0.181667	NR		1.55	20	
Zinc	0.655494	0.025		0.663915	NR		1.28	20	

Matrix Spike (B6J0751-MS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	2.24067	0.010	2.50000	0.028077	88.5	76 - 118		
Arsenic	2.27050	0.010	2.50000	0.030741	89.6	74 - 123		
Barium	2.38965	0.0030	2.50000	0.047026	93.7	76 - 117		
Beryllium	2.33196	0.0030	2.50000	0.000723	93.2	84 - 114		
Cadmium	2.25071	0.0030	2.50000	0.008895	89.7	73 - 115		
Chromium	2.53643	0.0030	2.50000	0.229568	92.3	76 - 117		
Cobalt	2.34222	0.0030	2.50000	0.010281	93.3	78 - 113		
Copper	2.66179	0.0090	2.50000	0.068634	104	70 - 132		
Lead	2.29533	0.0050	2.50000	ND	91.8	78 - 109		
Molybdenum	2.45700	0.0050	2.50000	0.138068	92.8	84 - 111		
Nickel	3.16475	0.0050	2.50000	0.876803	91.5	66 - 125		
Selenium	2.08360	0.010	2.50000	4.6609E-3	83.2	76 - 117		
Silver	2.38309	0.0030	2.50000	ND	95.3	64 - 133		
Thallium	2.19292	0.015	2.50000	ND	87.7	63 - 118		
Vanadium	2.54727	0.0030	2.50000	0.181667	94.6	76 - 119		
Zinc	3.00323	0.025	2.50000	0.663915	93.6	56 - 131		

Matrix Spike Dup (B6J0751-MSD1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	2.06647	0.010	2.50000	0.028077	81.5	76 - 118	8.09	20
Arsenic	2.10355	0.010	2.50000	0.030741	82.9	74 - 123	7.63	20
Barium	2.21869	0.0030	2.50000	0.047026	86.9	76 - 117	7.42	20
Beryllium	2.14720	0.0030	2.50000	0.000723	85.9	84 - 114	8.25	20
Cadmium	2.08865	0.0030	2.50000	0.008895	83.2	73 - 115	7.47	20
Chromium	2.35172	0.0030	2.50000	0.229568	84.9	76 - 117	7.56	20
Cobalt	2.17633	0.0030	2.50000	0.010281	86.6	78 - 113	7.34	20
Copper	2.46898	0.0090	2.50000	0.068634	96.0	70 - 132	7.52	20
Lead	2.12708	0.0050	2.50000	ND	85.1	78 - 109	7.61	20
Molybdenum	2.27457	0.0050	2.50000	0.138068	85.5	84 - 111	7.71	20



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W (continued)

Matrix Spike Dup (B6J0751-MSD1) - Continued

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Nickel	2.92664	0.0050	2.50000	0.876803	82.0	66 - 125	7.82	20	
Selenium	1.94120	0.010	2.50000	4.6609E-3	77.5	76 - 117	7.08	20	
Silver	2.21274	0.0030	2.50000	ND	88.5	64 - 133	7.41	20	
Thallium	2.02811	0.015	2.50000	ND	81.1	63 - 118	7.81	20	
Vanadium	2.35250	0.0030	2.50000	0.181667	86.8	76 - 119	7.95	20	
Zinc	2.78904	0.025	2.50000	0.663915	85.0	56 - 131	7.40	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0808 - EPA 3050B_S

Blank (B6J0808-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	0.715766	1.0			NR				J
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	0.148516	1.0			NR				J
Cobalt	ND	1.0			NR				
Copper	0.213131	2.0			NR				J
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	0.103914	1.0			NR				J
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	1.63640	1.0			NR				

LCS (B6J0808-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	47.0055	2.0	50.0000		94.0	80 - 120			
Arsenic	46.2299	1.0	50.0000		92.5	80 - 120			
Barium	49.0585	1.0	50.0000		98.1	80 - 120			
Beryllium	46.3313	1.0	50.0000		92.7	80 - 120			
Cadmium	46.7405	1.0	50.0000		93.5	80 - 120			
Chromium	49.7086	1.0	50.0000		99.4	80 - 120			
Cobalt	46.6029	1.0	50.0000		93.2	80 - 120			
Copper	51.6786	2.0	50.0000		103	80 - 120			
Lead	48.1984	1.0	50.0000		96.4	80 - 120			
Molybdenum	46.2862	1.0	50.0000		92.6	80 - 120			
Nickel	47.5051	1.0	50.0000		95.0	80 - 120			
Selenium	43.7640	1.0	50.0000		87.5	80 - 120			
Silver	47.6860	1.0	50.0000		95.4	80 - 120			
Thallium	47.2851	1.0	50.0000		94.6	80 - 120			
Vanadium	50.8736	1.0	50.0000		102	80 - 120			
Zinc	46.0379	1.0	50.0000		92.1	80 - 120			B

Duplicate (B6J0808-DUP1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0		ND	NR			20	
Arsenic	1.49434	1.0		1.84338	NR		20.9	20	R
Barium	51.0307	1.0		61.1594	NR		18.1	20	
Beryllium	0.348416	1.0		0.347732	NR		0.197	20	J
Cadmium	ND	1.0		ND	NR			20	
Chromium	11.0312	1.0		11.2821	NR		2.25	20	



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Reported : 11/07/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0808 - EPA 3050B_S (continued)

Duplicate (B6J0808-DUP1) - Continued

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Cobalt	3.29353	1.0		4.01224	NR		19.7	20	
Copper	4.92753	2.0		5.79583	NR		16.2	20	
Lead	1.47104	1.0		2.39910	NR		48.0	20	R
Molybdenum	ND	1.0		ND	NR			20	
Nickel	6.11027	1.0		6.44015	NR		5.26	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	22.8546	1.0		26.2120	NR		13.7	20	
Zinc	15.0284	1.0		17.4372	NR		14.8	20	B

Matrix Spike (B6J0808-MS1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	51.9246	2.0	125.000	ND	41.5	34 - 103			
Arsenic	71.7114	1.0	125.000	1.84338	55.9	59 - 103			M1
Barium	116.356	1.0	125.000	61.1594	44.2	30 - 134			
Beryllium	69.9650	1.0	125.000	0.347732	55.7	62 - 105			M1
Cadmium	67.3007	1.0	125.000	ND	53.8	53 - 102			
Chromium	84.4678	1.0	125.000	11.2821	58.5	51 - 111			
Cobalt	71.3116	1.0	125.000	4.01224	53.8	55 - 105			M1
Copper	82.5947	2.0	125.000	5.79583	61.4	53 - 126			
Lead	72.2782	1.0	125.000	2.39910	55.9	34 - 129			
Molybdenum	67.2826	1.0	125.000	ND	53.8	57 - 105			M1
Nickel	75.2968	1.0	125.000	6.44015	55.1	49 - 109			
Selenium	66.1776	1.0	125.000	ND	52.9	57 - 99			M1
Silver	73.1002	1.0	125.000	ND	58.5	64 - 105			M1
Thallium	67.0788	1.0	125.000	ND	53.7	46 - 105			
Vanadium	100.178	1.0	125.000	26.2120	59.2	60 - 109			M1
Zinc	82.7274	1.0	125.000	17.4372	52.2	29 - 122			B

Matrix Spike Dup (B6J0808-MSD1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	53.1383	2.0	125.000	ND	42.5	34 - 103	2.31	20	
Arsenic	72.1617	1.0	125.000	1.84338	56.3	59 - 103	0.626	20	M1
Barium	116.370	1.0	125.000	61.1594	44.2	30 - 134	0.0120	20	
Beryllium	71.4394	1.0	125.000	0.347732	56.9	62 - 105	2.09	20	M1
Cadmium	67.9393	1.0	125.000	ND	54.4	53 - 102	0.944	20	
Chromium	84.7134	1.0	125.000	11.2821	58.7	51 - 111	0.290	20	
Cobalt	71.4990	1.0	125.000	4.01224	54.0	55 - 105	0.263	20	M1
Copper	83.3634	2.0	125.000	5.79583	62.1	53 - 126	0.926	20	
Lead	73.6518	1.0	125.000	2.39910	57.0	34 - 129	1.88	20	
Molybdenum	67.8390	1.0	125.000	ND	54.3	57 - 105	0.824	20	M1
Nickel	75.9574	1.0	125.000	6.44015	55.6	49 - 109	0.873	20	
Selenium	66.6555	1.0	125.000	ND	53.3	57 - 99	0.720	20	M1



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0808 - EPA 3050B_S (continued)

Matrix Spike Dup (B6J0808-MSD1) - Continued

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Silver	74.1005	1.0	125.000	ND	59.3	64 - 105	1.36	20	M1
Thallium	68.5890	1.0	125.000	ND	54.9	46 - 105	2.23	20	
Vanadium	99.9984	1.0	125.000	26.2120	59.0	60 - 109	0.179	20	M1
Zinc	82.9624	1.0	125.000	17.4372	52.4	29 - 122	0.284	20	B



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S

Blank (B6K0229-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	1.10770	2.0			NR				J
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	0.363399	1.0			NR				J
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	0.559874	1.0			NR				J

LCS (B6K0229-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	45.5051	2.0	50.0000	91.0	80 - 120
Arsenic	43.1219	1.0	50.0000	86.2	80 - 120
Barium	49.1519	1.0	50.0000	98.3	80 - 120
Beryllium	48.3302	1.0	50.0000	96.7	80 - 120
Cadmium	46.4037	1.0	50.0000	92.8	80 - 120
Chromium	45.8652	1.0	50.0000	91.7	80 - 120
Cobalt	47.9771	1.0	50.0000	96.0	80 - 120
Copper	52.2430	2.0	50.0000	104	80 - 120
Lead	48.3115	1.0	50.0000	96.6	80 - 120
Molybdenum	47.8710	1.0	50.0000	95.7	80 - 120
Nickel	47.7532	1.0	50.0000	95.5	80 - 120
Selenium	40.7099	1.0	50.0000	81.4	80 - 120
Silver	49.0272	1.0	50.0000	98.1	80 - 120
Thallium	46.9539	1.0	50.0000	93.9	80 - 120
Vanadium	49.8605	1.0	50.0000	99.7	80 - 120
Zinc	45.0477	1.0	50.0000	90.1	80 - 120

Duplicate (B6K0229-DUP1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	ND	2.0	ND	NR			20	
Arsenic	2.80174	1.0	2.97962	NR		6.15	20	
Barium	56.6238	1.0	74.2821	NR		27.0	20	R
Beryllium	ND	1.0	ND	NR			20	
Cadmium	0.116497	1.0	0.131128	NR		11.8	20	J
Chromium	8.71996	1.0	10.3073	NR		16.7	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S (continued)

Duplicate (B6K0229-DUP1) - Continued

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Cobalt	2.94698	1.0		4.84730	NR		48.8	20	R
Copper	7.22094	2.0		8.04672	NR		10.8	20	
Lead	8.01555	1.0		6.91284	NR		14.8	20	
Molybdenum	ND	1.0		ND	NR			20	
Nickel	5.64630	1.0		6.72532	NR		17.4	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	27.2420	1.0		32.9912	NR		19.1	20	
Zinc	20.5682	1.0		23.4546	NR		13.1	20	

Matrix Spike (B6K0229-MS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	89.9490	2.0	125.000	ND	72.0	34 - 103			
Arsenic	98.5760	1.0	125.000	2.97962	76.5	59 - 103			
Barium	165.983	1.0	125.000	74.2821	73.4	30 - 134			
Beryllium	103.037	1.0	125.000	ND	82.4	62 - 105			
Cadmium	98.0460	1.0	125.000	0.131128	78.3	53 - 102			
Chromium	104.057	1.0	125.000	10.3073	75.0	51 - 111			
Cobalt	104.077	1.0	125.000	4.84730	79.4	55 - 105			
Copper	118.076	2.0	125.000	8.04672	88.0	53 - 126			
Lead	109.682	1.0	125.000	6.91284	82.2	34 - 129			
Molybdenum	102.498	1.0	125.000	ND	82.0	57 - 105			
Nickel	107.139	1.0	125.000	6.72532	80.3	49 - 109			
Selenium	90.3816	1.0	125.000	ND	72.3	57 - 99			
Silver	101.481	1.0	125.000	ND	81.2	64 - 105			
Thallium	97.7323	1.0	125.000	ND	78.2	46 - 105			
Vanadium	137.939	1.0	125.000	32.9912	84.0	60 - 109			
Zinc	118.404	1.0	250.000	23.4546	38.0	29 - 122			

Matrix Spike Dup (B6K0229-MSD1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	90.6710	2.0	125.000	ND	72.5	34 - 103	0.799	20	
Arsenic	99.5055	1.0	125.000	2.97962	77.2	59 - 103	0.939	20	
Barium	178.567	1.0	125.000	74.2821	83.4	30 - 134	7.30	20	
Beryllium	105.050	1.0	125.000	ND	84.0	62 - 105	1.93	20	
Cadmium	99.4111	1.0	125.000	0.131128	79.4	53 - 102	1.38	20	
Chromium	106.656	1.0	125.000	10.3073	77.1	51 - 111	2.47	20	
Cobalt	105.876	1.0	125.000	4.84730	80.8	55 - 105	1.71	20	
Copper	119.487	2.0	125.000	8.04672	89.2	53 - 126	1.19	20	
Lead	113.647	1.0	125.000	6.91284	85.4	34 - 129	3.55	20	
Molybdenum	104.168	1.0	125.000	ND	83.3	57 - 105	1.62	20	
Nickel	108.277	1.0	125.000	6.72532	81.2	49 - 109	1.06	20	
Selenium	91.2408	1.0	125.000	ND	73.0	57 - 99	0.946	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S (continued)

Matrix Spike Dup (B6K0229-MSD1) - Continued

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Silver	103.562	1.0	125.000	ND	82.8	64 - 105	2.03	20	
Thallium	99.4544	1.0	125.000	ND	79.6	46 - 105	1.75	20	
Vanadium	136.534	1.0	125.000	32.9912	82.8	60 - 109	1.02	20	
Zinc	122.836	1.0	250.000	23.4546	39.8	29 - 122	3.67	20	



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Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0754 - EPA 245.1/7470_W

Blank (B6J0754-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury ND 0.20 NR

LCS (B6J0754-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 11.0803 0.20 10.0000 111 80 - 120

Duplicate (B6J0754-DUP1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury ND 0.20 ND NR 20

Matrix Spike (B6J0754-MS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 9.85804 0.20 10.0000 ND 98.6 70 - 130

Matrix Spike Dup (B6J0754-MSD1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 9.67796 0.20 10.0000 ND 96.8 70 - 130 1.84 20

Post Spike (B6J0754-PS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 5.08013 5.00000 0.012951 101 85 - 115



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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0804 - EPA 7471_S

Blank (B6J0804-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury ND 0.10 NR

LCS (B6J0804-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.825317 0.10 0.833333 99.0 80 - 120

Duplicate (B6J0804-DUP1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.028595 0.10 0.032381 NR 12.4 20 J

Matrix Spike (B6J0804-MS1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.908104 0.10 0.833333 0.032381 105 70 - 130

Matrix Spike Dup (B6J0804-MSD1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.910807 0.10 0.833333 0.032381 105 70 - 130 0.297 20

Post Spike (B6J0804-PS1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.006176 5.00000E-3 0.000389 116 85 - 115 M1



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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0224 - EPA 7471_S

Blank (B6K0224-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury ND 0.10 NR

LCS (B6K0224-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.862070 0.10 0.833333 103 80 - 120

Duplicate (B6K0224-DUP1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.033953 0.10 0.022283 NR 41.5 20 R, J

Matrix Spike (B6K0224-MS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.887587 0.10 0.833333 0.022283 104 70 - 130

Matrix Spike Dup (B6K0224-MSD1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.856328 0.10 0.833333 0.022283 100 70 - 130 3.58 20

Post Spike (B6K0224-PS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.007048 5.00000E-3 0.000267 136 85 - 115 M1



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0743 - GCVOA_W

Blank (B6J0743-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Gasoline Range Organics	ND	0.05				NR			
Surrogate: 4-Bromofluorobenzene	0.1108		0.100000			111	70 - 130		

LCS (B6J0743-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Gasoline Range Organics	0.917000	0.05	1.00000			91.7	70 - 130		
Surrogate: 4-Bromofluorobenzene	0.1118		0.100000			112	70 - 130		

LCS Dup (B6J0743-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Gasoline Range Organics	0.923000	0.05	1.00000			92.3	70 - 130	0.652	20
Surrogate: 4-Bromofluorobenzene	0.1083		0.100000			108	70 - 130		



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0774 - GCSEMI_DRO_W

Blank (B6J0774-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

C10-C22	ND	0.05			NR				
C23-C36	ND	0.05			NR				

Surrogate: <i>p</i> -Terphenyl	0.01842		8.00000E-2		23.0	20 - 150			
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LCS (B6J0774-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

DRO	0.747500	0.05	1.00000		74.8	42 - 142			
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Surrogate: <i>p</i> -Terphenyl	0.03372		8.00000E-2		42.2	20 - 150			
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LCS Dup (B6J0774-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

DRO	0.718070	0.05	1.00000		71.8	42 - 142	4.02	20	
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Surrogate: <i>p</i> -Terphenyl	0.03370		8.00000E-2		42.1	20 - 150			
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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0780 - GCSEMI_DRO_LL_S									
Blank (B6J0780-BLK1)				Prepared: 10/27/2016 Analyzed: 10/28/2016					
C10-C22	ND	1.0			NR				
C23-C36	ND	1.0			NR				
<i>Surrogate: p-Terphenyl</i>	<i>2.315</i>		<i>2.66667</i>		<i>86.8</i>	<i>18 - 130</i>			
LCS (B6J0780-BS1)				Prepared: 10/27/2016 Analyzed: 10/28/2016					
DRO	20.0427	1.0	33.3333		60.1	34 - 120			
<i>Surrogate: p-Terphenyl</i>	<i>2.043</i>		<i>2.66667</i>		<i>76.6</i>	<i>18 - 130</i>			
Duplicate (B6J0780-DUP1)				Source: 1603732-03 Prepared: 10/27/2016 Analyzed: 10/28/2016					
DRO	1.98700	1.0		1.81733	NR		8.92	20	
<i>Surrogate: p-Terphenyl</i>	<i>1.945</i>		<i>2.66667</i>		<i>72.9</i>	<i>18 - 130</i>			
Matrix Spike (B6J0780-MS1)				Source: 1603732-03 Prepared: 10/27/2016 Analyzed: 10/28/2016					
DRO	21.2790	1.0	33.3333	1.81733	58.4	12 - 132			
<i>Surrogate: p-Terphenyl</i>	<i>1.931</i>		<i>2.66667</i>		<i>72.4</i>	<i>18 - 130</i>			
Matrix Spike Dup (B6J0780-MSD1)				Source: 1603732-03 Prepared: 10/27/2016 Analyzed: 10/28/2016					
DRO	25.6627	1.0	33.3333	1.81733	71.5	12 - 132	18.7	20	
<i>Surrogate: p-Terphenyl</i>	<i>2.039</i>		<i>2.66667</i>		<i>76.5</i>	<i>18 - 130</i>			



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K0069 - GCSEMI_DRO_LL_S								
Blank (B6K0069-BLK1)				Prepared: 11/1/2016 Analyzed: 11/2/2016				
C10-C22	ND	1.0			NR			
C23-C36	ND	1.0			NR			
<i>Surrogate: p-Terphenyl</i>	1.798		2.66667		67.4	18 - 130		
LCS (B6K0069-BS1)				Prepared: 11/1/2016 Analyzed: 11/1/2016				
DRO	17.1847	1.0	33.3333		51.6	34 - 120		
<i>Surrogate: p-Terphenyl</i>	1.557		2.66667		58.4	18 - 130		
Duplicate (B6K0069-DUP1)				Source: 1603730-10 Prepared: 11/1/2016 Analyzed: 11/1/2016				
DRO	3.44000	1.0		2.75867	NR	22.0	20	R
<i>Surrogate: p-Terphenyl</i>	1.309		2.66667		49.1	18 - 130		
Duplicate (B6K0069-DUP2)				Source: 1603733-34 Prepared: 11/1/2016 Analyzed: 11/1/2016				
DRO	1.82967	1.0		2.26633	NR	21.3	20	R
<i>Surrogate: p-Terphenyl</i>	1.685		2.66667		63.2	18 - 130		
Duplicate (B6K0069-DUP3)				Source: 1603732-11 Prepared: 11/2/2016 Analyzed: 11/2/2016				
DRO	1.89067	1.0		1.73000	NR	8.87	20	
<i>Surrogate: p-Terphenyl</i>	2.040		2.66667		76.5	18 - 130		
Matrix Spike (B6K0069-MS1)				Source: 1603730-11 Prepared: 11/1/2016 Analyzed: 11/1/2016				
DRO	20.3963	1.0	33.3333	2.63567	53.3	12 - 132		
<i>Surrogate: p-Terphenyl</i>	1.657		2.66667		62.1	18 - 130		
Matrix Spike (B6K0069-MS2)				Source: 1603733-35 Prepared: 11/1/2016 Analyzed: 11/1/2016				
DRO	14.5147	1.0	33.3333	2.13433	37.1	12 - 132		
<i>Surrogate: p-Terphenyl</i>	1.285		2.66667		48.2	18 - 130		
Matrix Spike (B6K0069-MS3)				Source: 1603732-11 Prepared: 11/2/2016 Analyzed: 11/2/2016				
DRO	22.5013	1.0	33.3333	1.73000	62.3	12 - 132		
<i>Surrogate: p-Terphenyl</i>	1.827		2.66667		68.5	18 - 130		
Matrix Spike Dup (B6K0069-MSD1)				Source: 1603730-11 Prepared: 11/2/2016 Analyzed: 11/2/2016				
DRO	21.3440	1.0	33.3333	2.63567	56.1	12 - 132	4.54	20
<i>Surrogate: p-Terphenyl</i>	1.712		2.66667		64.2	18 - 130		
Matrix Spike Dup (B6K0069-MSD2)				Source: 1603733-35 Prepared: 11/1/2016 Analyzed: 11/1/2016				
DRO	22.4903	1.0	33.3333	2.13433	61.1	12 - 132	43.1	20 R
<i>Surrogate: p-Terphenyl</i>	1.800		2.66667		67.5	18 - 130		
Matrix Spike Dup (B6K0069-MSD3)				Source: 1603732-11 Prepared: 11/2/2016 Analyzed: 11/2/2016				



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Project Number : Roosevelt HS, 265642
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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0069 - GCSEMI_DRO_LL_S (continued)

Matrix Spike Dup (B6K0069-MSD3) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/2/2016

DRO	25.2887	1.0	33.3333	1.73000	70.7	12 - 132	11.7	20	
Surrogate: <i>p</i> -Terphenyl	2.010		2.66667		75.4	18 - 130			



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Project Number : Roosevelt HS, 265642

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Reported : 11/07/2016

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W

Blank (B6J0753-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,1,1,2-Tetrachloroethane	ND	0.50			NR
1,1,1-Trichloroethane	ND	0.50			NR
1,1,2,2-Tetrachloroethane	ND	0.50			NR
1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromochloromethane	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon disulfide	ND	1.0			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Di-isopropyl ether	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

Blank (B6J0753-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Dichlorodifluoromethane	ND	0.50			NR			
Ethyl Acetate	ND	10			NR			
Ethyl Ether	ND	10			NR			
Ethyl tert-butyl ether	ND	0.50			NR			
Ethylbenzene	ND	0.50			NR			
Freon-113	ND	0.50			NR			
Hexachlorobutadiene	ND	0.50			NR			
Isopropylbenzene	ND	0.50			NR			
m,p-Xylene	ND	1.0			NR			
Methylene chloride	ND	1.0			NR			
MTBE	ND	0.50			NR			
n-Butylbenzene	ND	0.50			NR			
n-Propylbenzene	ND	0.50			NR			
Naphthalene	ND	0.50			NR			
o-Xylene	ND	0.50			NR			
sec-Butylbenzene	ND	0.50			NR			
Styrene	ND	0.50			NR			
tert-Amyl methyl ether	ND	0.50			NR			
tert-Butanol	ND	10			NR			
tert-Butylbenzene	ND	0.50			NR			
Tetrachloroethene	ND	0.50			NR			
Toluene	ND	0.50			NR			
trans-1,2-Dichloroethene	ND	0.50			NR			
trans-1,3-Dichloropropene	ND	0.50			NR			
Trichloroethene	ND	0.50			NR			
Trichlorofluoromethane	ND	0.50			NR			
Vinyl acetate	ND	10			NR			
Vinyl chloride	ND	0.50			NR			

Surrogate: 1,2-Dichloroethane-d4	24.52		25.0000		98.1	51 - 157
Surrogate: 4-Bromofluorobenzene	27.18		25.0000		109	61 - 123
Surrogate: Dibromofluoromethane	24.16		25.0000		96.6	57 - 147
Surrogate: Toluene-d8	26.20		25.0000		105	61 - 119

LCS (B6J0753-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,1,1,2-Tetrachloroethane	9.31000	0.50	10.0000		93.1	76 - 132
1,1,1-Trichloroethane	8.34000	0.50	10.0000		83.4	72 - 144
1,1,2,2-Tetrachloroethane	8.57000	0.50	10.0000		85.7	70 - 120
1,1,2-Trichloroethane	8.91000	0.50	10.0000		89.1	75 - 120
1,1-Dichloroethane	8.71000	0.50	10.0000		87.1	65 - 127
1,1-Dichloroethene	9.23000	0.50	10.0000		92.3	63 - 142
1,1-Dichloropropene	10.4500	0.50	10.0000		104	78 - 137



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Reported : 11/07/2016

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS (B6J0753-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,2,3-Trichloropropane	8.47000	0.50	10.0000		84.7	73 - 118			
1,2,3-Trichlorobenzene	9.60000	0.50	10.0000		96.0	53 - 164			
1,2,4-Trichlorobenzene	9.62000	0.50	10.0000		96.2	58 - 144			
1,2,4-Trimethylbenzene	11.2100	0.50	10.0000		112	75 - 140			
1,2-Dibromo-3-chloropropane	8.07000	0.50	10.0000		80.7	61 - 131			
1,2-Dibromoethane	8.76000	0.50	10.0000		87.6	74 - 125			
1,2-Dichlorobenzene	9.99000	0.50	10.0000		99.9	78 - 122			
1,2-Dichloroethane	8.28000	0.50	10.0000		82.8	70 - 126			
1,2-Dichloropropane	9.36000	0.50	10.0000		93.6	69 - 120			
1,3,5-Trimethylbenzene	11.2100	0.50	10.0000		112	73 - 145			
1,3-Dichlorobenzene	10.2300	0.50	10.0000		102	76 - 126			
1,3-Dichloropropane	8.88000	0.50	10.0000		88.8	76 - 117			
1,4-Dichlorobenzene	9.87000	0.50	10.0000		98.7	77 - 120			
2,2-Dichloropropane	8.55000	0.50	10.0000		85.5	47 - 169			
2-Chlorotoluene	10.7200	0.50	10.0000		107	75 - 135			
4-Chlorotoluene	10.7000	0.50	10.0000		107	70 - 133			
4-Isopropyltoluene	11.3200	0.50	10.0000		113	72 - 153			
Benzene	20.5400	0.50	20.0000		103	73 - 123			
Bromobenzene	9.89000	0.50	10.0000		98.9	75 - 121			
Bromochloromethane	8.65000	0.50	10.0000		86.5	65 - 129			
Bromodichloromethane	8.42000	0.50	10.0000		84.2	73 - 124			
Bromoform	8.18000	0.50	10.0000		81.8	70 - 135			
Bromomethane	10.0000	0.50	10.0000		100	10 - 166			
Carbon disulfide	9.75000	1.0	10.0000		97.5	61 - 144			
Carbon tetrachloride	8.42000	0.50	10.0000		84.2	65 - 171			
Chlorobenzene	10.1900	0.50	10.0000		102	80 - 121			
Chloroethane	8.25000	0.50	10.0000		82.5	55 - 143			
Chloroform	8.30000	0.50	10.0000		83.0	65 - 130			
Chloromethane	8.27000	0.50	10.0000		82.7	21 - 141			
cis-1,2-Dichloroethene	8.48000	0.50	10.0000		84.8	64 - 126			
cis-1,3-Dichloropropene	8.79000	0.50	10.0000		87.9	70 - 131			
Di-isopropyl ether	8.22000	0.50	10.0000		82.2	59 - 125			
Dibromochloromethane	8.59000	0.50	10.0000		85.9	74 - 125			
Dibromomethane	8.91000	0.50	10.0000		89.1	74 - 116			
Dichlorodifluoromethane	8.87000	0.50	10.0000		88.7	40 - 186			
Ethyl Acetate	71.1600	10	100.000		71.2	53 - 137			
Ethyl Ether	77.3100	10	100.000		77.3	62 - 134			
Ethyl tert-butyl ether	7.89000	0.50	10.0000		78.9	52 - 130			
Ethylbenzene	21.4300	0.50	20.0000		107	77 - 130			
Freon-113	9.03000	0.50	10.0000		90.3	68 - 167			
Hexachlorobutadiene	10.3400	0.50	10.0000		103	52 - 176			
Isopropylbenzene	11.4500	0.50	10.0000		114	77 - 144			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS (B6J0753-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

m,p-Xylene	22.1700	1.0	20.0000		111	84 - 136		
Methylene chloride	8.55000	1.0	10.0000		85.5	72 - 150		
MTBE	7.87000	0.50	10.0000		78.7	64 - 122		
n-Butylbenzene	11.1300	0.50	10.0000		111	73 - 154		
n-Propylbenzene	11.7200	0.50	10.0000		117	77 - 145		
Naphthalene	8.48000	0.50	10.0000		84.8	55 - 137		
o-Xylene	21.7000	0.50	20.0000		108	79 - 135		
sec-Butylbenzene	11.5700	0.50	10.0000		116	73 - 157		
Styrene	10.7600	0.50	10.0000		108	78 - 125		
tert-Amyl methyl ether	8.79000	0.50	10.0000		87.9	53 - 127		
tert-Butanol	34.5400	10	50.0000		69.1	29 - 163		
tert-Butylbenzene	11.1800	0.50	10.0000		112	78 - 149		
Tetrachloroethene	10.4700	0.50	10.0000		105	74 - 136		
Toluene	20.9900	0.50	20.0000		105	78 - 124		
trans-1,2-Dichloroethene	8.81000	0.50	10.0000		88.1	66 - 131		
trans-1,3-Dichloropropene	8.62000	0.50	10.0000		86.2	63 - 134		
Trichloroethene	9.94000	0.50	10.0000		99.4	78 - 128		
Trichlorofluoromethane	9.24000	0.50	10.0000		92.4	60 - 170		
Vinyl acetate	75.8400	10	100.000		75.8	61 - 144		
Vinyl chloride	8.71000	0.50	10.0000		87.1	55 - 148		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>21.29</i>		<i>25.0000</i>		<i>85.2</i>	<i>51 - 157</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>27.36</i>		<i>25.0000</i>		<i>109</i>	<i>61 - 123</i>		
<i>Surrogate: Dibromofluoromethane</i>	<i>20.94</i>		<i>25.0000</i>		<i>83.8</i>	<i>57 - 147</i>		
<i>Surrogate: Toluene-d8</i>	<i>25.81</i>		<i>25.0000</i>		<i>103</i>	<i>61 - 119</i>		

LCS Dup (B6J0753-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,1,1,2-Tetrachloroethane	9.51000	0.50	10.0000		95.1	76 - 132	2.13	20
1,1,1-Trichloroethane	8.65000	0.50	10.0000		86.5	72 - 144	3.65	20
1,1,2,2-Tetrachloroethane	8.94000	0.50	10.0000		89.4	70 - 120	4.23	20
1,1,2-Trichloroethane	9.06000	0.50	10.0000		90.6	75 - 120	1.67	20
1,1-Dichloroethane	8.98000	0.50	10.0000		89.8	65 - 127	3.05	20
1,1-Dichloroethene	9.34000	0.50	10.0000		93.4	63 - 142	1.18	20
1,1-Dichloropropene	10.5100	0.50	10.0000		105	78 - 137	0.573	20
1,2,3-Trichloropropane	8.83000	0.50	10.0000		88.3	73 - 118	4.16	20
1,2,3-Trichlorobenzene	9.75000	0.50	10.0000		97.5	53 - 164	1.55	20
1,2,4-Trichlorobenzene	9.74000	0.50	10.0000		97.4	58 - 144	1.24	20
1,2,4-Trimethylbenzene	11.1000	0.50	10.0000		111	75 - 140	0.986	20
1,2-Dibromo-3-chloropropane	8.28000	0.50	10.0000		82.8	61 - 131	2.57	20
1,2-Dibromoethane	9.10000	0.50	10.0000		91.0	74 - 125	3.81	20
1,2-Dichlorobenzene	10.0300	0.50	10.0000		100	78 - 122	0.400	20
1,2-Dichloroethane	8.84000	0.50	10.0000		88.4	70 - 126	6.54	20



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS Dup (B6J0753-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

1,2-Dichloropropane	9.54000	0.50	10.0000		95.4	69 - 120	1.90	20	
1,3,5-Trimethylbenzene	11.1700	0.50	10.0000		112	73 - 145	0.357	20	
1,3-Dichlorobenzene	10.3400	0.50	10.0000		103	76 - 126	1.07	20	
1,3-Dichloropropane	9.24000	0.50	10.0000		92.4	76 - 117	3.97	20	
1,4-Dichlorobenzene	10.1400	0.50	10.0000		101	77 - 120	2.70	20	
2,2-Dichloropropane	8.63000	0.50	10.0000		86.3	47 - 169	0.931	20	
2-Chlorotoluene	10.6500	0.50	10.0000		106	75 - 135	0.655	20	
4-Chlorotoluene	10.7500	0.50	10.0000		108	70 - 133	0.466	20	
4-Isopropyltoluene	11.3300	0.50	10.0000		113	72 - 153	0.0883	20	
Benzene	20.8800	0.50	20.0000		104	73 - 123	1.64	20	
Bromobenzene	10.1000	0.50	10.0000		101	75 - 121	2.10	20	
Bromochloromethane	8.52000	0.50	10.0000		85.2	65 - 129	1.51	20	
Bromodichloromethane	8.63000	0.50	10.0000		86.3	73 - 124	2.46	20	
Bromoform	8.39000	0.50	10.0000		83.9	70 - 135	2.53	20	
Bromomethane	11.1900	0.50	10.0000		112	10 - 166	11.2	20	
Carbon disulfide	10.0800	1.0	10.0000		101	61 - 144	3.33	20	
Carbon tetrachloride	8.63000	0.50	10.0000		86.3	65 - 171	2.46	20	
Chlorobenzene	10.2600	0.50	10.0000		103	80 - 121	0.685	20	
Chloroethane	8.10000	0.50	10.0000		81.0	55 - 143	1.83	20	
Chloroform	8.45000	0.50	10.0000		84.5	65 - 130	1.79	20	
Chloromethane	8.23000	0.50	10.0000		82.3	21 - 141	0.485	20	
cis-1,2-Dichloroethene	8.71000	0.50	10.0000		87.1	64 - 126	2.68	20	
cis-1,3-Dichloropropene	9.31000	0.50	10.0000		93.1	70 - 131	5.75	20	
Di-isopropyl ether	8.36000	0.50	10.0000		83.6	59 - 125	1.69	20	
Dibromochloromethane	8.74000	0.50	10.0000		87.4	74 - 125	1.73	20	
Dibromomethane	9.22000	0.50	10.0000		92.2	74 - 116	3.42	20	
Dichlorodifluoromethane	8.91000	0.50	10.0000		89.1	40 - 186	0.450	20	
Ethyl Acetate	76.5000	10	100.000		76.5	53 - 137	7.23	20	
Ethyl Ether	80.3600	10	100.000		80.4	62 - 134	3.87	20	
Ethyl tert-butyl ether	8.14000	0.50	10.0000		81.4	52 - 130	3.12	20	
Ethylbenzene	21.5100	0.50	20.0000		108	77 - 130	0.373	20	
Freon-113	9.43000	0.50	10.0000		94.3	68 - 167	4.33	20	
Hexachlorobutadiene	10.4700	0.50	10.0000		105	52 - 176	1.25	20	
Isopropylbenzene	11.5600	0.50	10.0000		116	77 - 144	0.956	20	
m,p-Xylene	22.1700	1.0	20.0000		111	84 - 136	0.00	20	
Methylene chloride	8.68000	1.0	10.0000		86.8	72 - 150	1.51	20	
MTBE	8.32000	0.50	10.0000		83.2	64 - 122	5.56	20	
n-Butylbenzene	11.1300	0.50	10.0000		111	73 - 154	0.00	20	
n-Propylbenzene	11.6700	0.50	10.0000		117	77 - 145	0.428	20	
Naphthalene	8.70000	0.50	10.0000		87.0	55 - 137	2.56	20	
o-Xylene	21.7400	0.50	20.0000		109	79 - 135	0.184	20	
sec-Butylbenzene	11.5600	0.50	10.0000		116	73 - 157	0.0865	20	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0753 - MSVOA_W (continued)

LCS Dup (B6J0753-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Styrene	10.6600	0.50	10.0000		107	78 - 125	0.934	20	
tert-Amyl methyl ether	9.19000	0.50	10.0000		91.9	53 - 127	4.45	20	
tert-Butanol	39.0600	10	50.0000		78.1	29 - 163	12.3	20	
tert-Butylbenzene	11.1100	0.50	10.0000		111	78 - 149	0.628	20	
Tetrachloroethene	10.7000	0.50	10.0000		107	74 - 136	2.17	20	
Toluene	21.4500	0.50	20.0000		107	78 - 124	2.17	20	
trans-1,2-Dichloroethene	8.93000	0.50	10.0000		89.3	66 - 131	1.35	20	
trans-1,3-Dichloropropene	8.91000	0.50	10.0000		89.1	63 - 134	3.31	20	
Trichloroethene	10.1100	0.50	10.0000		101	78 - 128	1.70	20	
Trichlorofluoromethane	9.33000	0.50	10.0000		93.3	60 - 170	0.969	20	
Vinyl acetate	76.2100	10	100.000		76.2	61 - 144	0.487	20	
Vinyl chloride	8.74000	0.50	10.0000		87.4	55 - 148	0.344	20	
Surrogate: 1,2-Dichloroethane-d4	22.03		25.0000		88.1	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.28		25.0000		109	61 - 123			
Surrogate: Dibromofluoromethane	21.25		25.0000		85.0	57 - 147			
Surrogate: Toluene-d8	26.28		25.0000		105	61 - 119			



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S

Blank (B6J0781-BLK1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	ND	5.0			NR
1,1,1-Trichloroethane	ND	5.0			NR
1,1,2,2-Tetrachloroethane	ND	5.0			NR
1,1,2-Trichloroethane	ND	5.0			NR
1,1-Dichloroethane	ND	5.0			NR
1,1-Dichloroethene	ND	5.0			NR
1,1-Dichloropropene	ND	5.0			NR
1,2,3-Trichloropropane	ND	5.0			NR
1,2,3-Trichlorobenzene	ND	5.0			NR
1,2,4-Trichlorobenzene	ND	5.0			NR
1,2,4-Trimethylbenzene	ND	5.0			NR
1,2-Dibromo-3-chloropropane	ND	10			NR
1,2-Dibromoethane	ND	5.0			NR
1,2-Dichlorobenzene	ND	5.0			NR
1,2-Dichloroethane	ND	5.0			NR
1,2-Dichloropropane	ND	5.0			NR
1,3,5-Trimethylbenzene	ND	5.0			NR
1,3-Dichlorobenzene	ND	5.0			NR
1,3-Dichloropropane	ND	5.0			NR
1,4-Dichlorobenzene	ND	5.0			NR
2,2-Dichloropropane	ND	5.0			NR
2-Chlorotoluene	ND	5.0			NR
4-Chlorotoluene	ND	5.0			NR
4-Isopropyltoluene	ND	5.0			NR
Benzene	ND	5.0			NR
Bromobenzene	ND	5.0			NR
Bromochloromethane	ND	5.0			NR
Bromodichloromethane	ND	5.0			NR
Bromoform	ND	5.0			NR
Bromomethane	ND	5.0			NR
Carbon disulfide	ND	5.0			NR
Carbon tetrachloride	ND	5.0			NR
Chlorobenzene	ND	5.0			NR
Chloroethane	ND	5.0			NR
Chloroform	ND	5.0			NR
Chloromethane	ND	5.0			NR
cis-1,2-Dichloroethene	ND	5.0			NR
cis-1,3-Dichloropropene	ND	5.0			NR
Di-isopropyl ether	ND	5.0			NR
Dibromochloromethane	ND	5.0			NR
Dibromomethane	ND	5.0			NR



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Blank (B6J0781-BLK1) - Continued

Prepared: 10/28/2016 Analyzed: 10/28/2016

Dichlorodifluoromethane	ND	5.0			NR				
Ethyl Acetate	ND	50			NR				
Ethyl Ether	ND	50			NR				
Ethyl tert-butyl ether	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
Freon-113	ND	5.0			NR				
Hexachlorobutadiene	ND	5.0			NR				
Isopropylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
Methylene chloride	ND	5.0			NR				
MTBE	ND	5.0			NR				
n-Butylbenzene	ND	5.0			NR				
n-Propylbenzene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
o-Xylene	ND	5.0			NR				
sec-Butylbenzene	ND	5.0			NR				
Styrene	ND	5.0			NR				
tert-Amyl methyl ether	ND	5.0			NR				
tert-Butanol	ND	100			NR				
tert-Butylbenzene	ND	5.0			NR				
Tetrachloroethene	ND	5.0			NR				
Toluene	ND	5.0			NR				
trans-1,2-Dichloroethene	ND	5.0			NR				
trans-1,3-Dichloropropene	ND	5.0			NR				
Trichloroethene	ND	5.0			NR				
Trichlorofluoromethane	ND	5.0			NR				
Vinyl acetate	ND	50			NR				
Vinyl chloride	ND	5.0			NR				

Surrogate: 1,2-Dichloroethane-d4	53.08		50.0000		106	12 - 186			
Surrogate: 4-Bromofluorobenzene	50.98		50.0000		102	23 - 162			
Surrogate: Dibromofluoromethane	50.61		50.0000		101	23 - 179			
Surrogate: Toluene-d8	51.67		50.0000		103	26 - 164			

LCS (B6J0781-BS1)

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	42.5900	5.0	50.0000		85.2	78 - 119			
1,1,1-Trichloroethane	49.8900	5.0	50.0000		99.8	75 - 123			
1,1,2,2-Tetrachloroethane	35.9700	5.0	50.0000		71.9	65 - 117			
1,1,2-Trichloroethane	42.3100	5.0	50.0000		84.6	79 - 108			
1,1-Dichloroethane	50.5200	5.0	50.0000		101	69 - 120			
1,1-Dichloroethene	58.3000	5.0	50.0000		117	59 - 126			
1,1-Dichloropropene	48.3700	5.0	50.0000		96.7	76 - 121			



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

LCS (B6J0781-BS1) - Continued

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,2,3-Trichloropropane	36.7100	5.0	50.0000		73.4	66 - 118			
1,2,3-Trichlorobenzene	42.7700	5.0	50.0000		85.5	75 - 116			
1,2,4-Trichlorobenzene	45.3800	5.0	50.0000		90.8	79 - 121			
1,2,4-Trimethylbenzene	42.9000	5.0	50.0000		85.8	80 - 118			
1,2-Dibromo-3-chloropropane	41.1000	10	50.0000		82.2	65 - 122			
1,2-Dibromoethane	43.5200	5.0	50.0000		87.0	77 - 115			
1,2-Dichlorobenzene	43.1100	5.0	50.0000		86.2	81 - 115			
1,2-Dichloroethane	41.7300	5.0	50.0000		83.5	70 - 122			
1,2-Dichloropropane	43.3600	5.0	50.0000		86.7	77 - 110			
1,3,5-Trimethylbenzene	43.0200	5.0	50.0000		86.0	79 - 119			
1,3-Dichlorobenzene	42.8600	5.0	50.0000		85.7	81 - 116			
1,3-Dichloropropane	41.3200	5.0	50.0000		82.6	79 - 113			
1,4-Dichlorobenzene	42.8200	5.0	50.0000		85.6	80 - 117			
2,2-Dichloropropane	53.6200	5.0	50.0000		107	70 - 129			
2-Chlorotoluene	42.8100	5.0	50.0000		85.6	76 - 119			
4-Chlorotoluene	42.8900	5.0	50.0000		85.8	79 - 119			
4-Isopropyltoluene	44.6200	5.0	50.0000		89.2	80 - 122			
Benzene	90.9700	5.0	100.000		91.0	79 - 111			
Bromobenzene	40.8800	5.0	50.0000		81.8	77 - 114			
Bromochloromethane	46.0000	5.0	50.0000		92.0	69 - 117			
Bromodichloromethane	43.1100	5.0	50.0000		86.2	79 - 114			
Bromoform	39.7600	5.0	50.0000		79.5	72 - 122			
Bromomethane	67.7300	5.0	50.0000		135	47 - 176			
Carbon disulfide	61.0200	5.0	50.0000		122	50 - 133			
Carbon tetrachloride	51.0600	5.0	50.0000		102	68 - 143			
Chlorobenzene	43.6800	5.0	50.0000		87.4	81 - 113			
Chloroethane	61.8900	5.0	50.0000		124	47 - 148			
Chloroform	47.7000	5.0	50.0000		95.4	77 - 116			
Chloromethane	65.0100	5.0	50.0000		130	39 - 141			
cis-1,2-Dichloroethene	48.4200	5.0	50.0000		96.8	68 - 120			
cis-1,3-Dichloropropene	46.9800	5.0	50.0000		94.0	74 - 113			
Di-isopropyl ether	46.6100	5.0	50.0000		93.2	62 - 124			
Dibromochloromethane	40.2700	5.0	50.0000		80.5	78 - 114			
Dibromomethane	42.9400	5.0	50.0000		85.9	74 - 112			
Dichlorodifluoromethane	67.5600	5.0	50.0000		135	49 - 138			
Ethyl Acetate	441.480	50	500.000		88.3	63 - 131			
Ethyl Ether	401.000	50	500.000		80.2	56 - 123			
Ethyl tert-butyl ether	48.3000	5.0	50.0000		96.6	68 - 121			
Ethylbenzene	85.9800	5.0	100.000		86.0	82 - 112			
Freon-113	61.8700	5.0	50.0000		124	65 - 133			
Hexachlorobutadiene	46.9400	5.0	50.0000		93.9	76 - 131			
Isopropylbenzene	44.8900	5.0	50.0000		89.8	77 - 122			



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Project Number : Roosevelt HS, 265642
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Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

LCS (B6J0781-BS1) - Continued

Prepared: 10/28/2016 Analyzed: 10/28/2016

m,p-Xylene	84.6200	10	100.000		84.6	80 - 116		
Methylene chloride	43.2900	5.0	50.0000		86.6	67 - 144		
MTBE	46.2900	5.0	50.0000		92.6	62 - 120		
n-Butylbenzene	44.9300	5.0	50.0000		89.9	78 - 134		
n-Propylbenzene	43.3800	5.0	50.0000		86.8	77 - 125		
Naphthalene	42.0700	5.0	50.0000		84.1	66 - 125		
o-Xylene	89.7500	5.0	100.000		89.8	80 - 113		
sec-Butylbenzene	44.2000	5.0	50.0000		88.4	79 - 124		
Styrene	45.5200	5.0	50.0000		91.0	82 - 117		
tert-Amyl methyl ether	46.8300	5.0	50.0000		93.7	62 - 118		
tert-Butanol	194.800	100	250.000		77.9	35 - 127		
tert-Butylbenzene	43.9000	5.0	50.0000		87.8	78 - 121		
Tetrachloroethene	44.6800	5.0	50.0000		89.4	75 - 124		
Toluene	89.1000	5.0	100.000		89.1	79 - 115		
trans-1,2-Dichloroethene	48.5000	5.0	50.0000		97.0	65 - 127		
trans-1,3-Dichloropropene	44.5700	5.0	50.0000		89.1	73 - 115		
Trichloroethene	45.4600	5.0	50.0000		90.9	77 - 119		
Trichlorofluoromethane	53.3600	5.0	50.0000		107	57 - 134		
Vinyl acetate	478.390	50	500.000		95.7	62 - 147		
Vinyl chloride	59.7700	5.0	50.0000		120	53 - 133		
Surrogate: 1,2-Dichloroethane-d4	53.76		50.0000		108	12 - 186		
Surrogate: 4-Bromofluorobenzene	50.71		50.0000		101	23 - 162		
Surrogate: Dibromofluoromethane	53.38		50.0000		107	23 - 179		
Surrogate: Toluene-d8	52.71		50.0000		105	26 - 164		

Matrix Spike (B6J0781-MS1)

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	35.2300	5.0	50.0000	ND	70.5	45 - 124		
1,1,1-Trichloroethane	42.7900	5.0	50.0000	ND	85.6	53 - 125		
1,1,2,2-Tetrachloroethane	33.3400	5.0	50.0000	ND	66.7	42 - 117		
1,1,2-Trichloroethane	37.6300	5.0	50.0000	ND	75.3	48 - 120		
1,1-Dichloroethane	42.6600	5.0	50.0000	ND	85.3	54 - 116		
1,1-Dichloroethene	48.6600	5.0	50.0000	ND	97.3	47 - 123		
1,1-Dichloropropene	40.5800	5.0	50.0000	ND	81.2	48 - 126		
1,2,3-Trichloropropane	33.4100	5.0	50.0000	ND	66.8	46 - 118		
1,2,3-Trichlorobenzene	18.8700	5.0	50.0000	ND	37.7	1 - 132		
1,2,4-Trichlorobenzene	20.4800	5.0	50.0000	ND	41.0	2 - 138		
1,2,4-Trimethylbenzene	21.6400	5.0	50.0000	ND	43.3	32 - 129		
1,2-Dibromo-3-chloropropane	36.5900	10	50.0000	ND	73.2	34 - 130		
1,2-Dibromoethane	37.0800	5.0	50.0000	ND	74.2	45 - 125		
1,2-Dichlorobenzene	27.4200	5.0	50.0000	ND	54.8	25 - 130		
1,2-Dichloroethane	37.2400	5.0	50.0000	ND	74.5	51 - 119		



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike (B6J0781-MS1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,2-Dichloropropane	37.8300	5.0	50.0000	ND	75.7	54 - 113			
1,3,5-Trimethylbenzene	27.4300	5.0	50.0000	ND	54.9	34 - 128			
1,3-Dichlorobenzene	28.6200	5.0	50.0000	ND	57.2	26 - 130			
1,3-Dichloropropane	37.0800	5.0	50.0000	ND	74.2	53 - 117			
1,4-Dichlorobenzene	29.0200	5.0	50.0000	ND	58.0	26 - 130			
2,2-Dichloropropane	45.8900	5.0	50.0000	ND	91.8	52 - 128			
2-Chlorotoluene	28.8600	5.0	50.0000	ND	57.7	34 - 126			
4-Chlorotoluene	29.8300	5.0	50.0000	ND	59.7	32 - 128			
4-Isopropyltoluene	28.8200	5.0	50.0000	ND	57.6	28 - 133			
Benzene	77.1900	5.0	100.000	ND	77.2	55 - 113			
Bromobenzene	31.3300	5.0	50.0000	ND	62.7	36 - 122			
Bromochloromethane	39.4800	5.0	50.0000	ND	79.0	50 - 118			
Bromodichloromethane	36.5700	5.0	50.0000	ND	73.1	51 - 117			
Bromoform	34.9800	5.0	50.0000	ND	70.0	39 - 130			
Bromomethane	57.1100	5.0	50.0000	ND	114	38 - 151			
Carbon disulfide	50.5000	5.0	50.0000	ND	101	38 - 126			
Carbon tetrachloride	42.4200	5.0	50.0000	ND	84.8	43 - 141			
Chlorobenzene	34.7400	5.0	50.0000	ND	69.5	42 - 122			
Chloroethane	52.0800	5.0	50.0000	ND	104	42 - 129			
Chloroform	39.7200	5.0	50.0000	ND	79.4	56 - 117			
Chloromethane	53.9500	5.0	50.0000	ND	108	35 - 127			
cis-1,2-Dichloroethene	40.2500	5.0	50.0000	ND	80.5	50 - 118			
cis-1,3-Dichloropropene	38.4600	5.0	50.0000	ND	76.9	45 - 118			
Di-isopropyl ether	40.1200	5.0	50.0000	ND	80.2	51 - 119			
Dibromochloromethane	35.1500	5.0	50.0000	ND	70.3	47 - 120			
Dibromomethane	37.2100	5.0	50.0000	ND	74.4	48 - 118			
Dichlorodifluoromethane	60.5100	5.0	50.0000	ND	121	43 - 126			
Ethyl Acetate	92.8400	50	500.000	ND	18.6	22 - 145			M2
Ethyl Ether	361.150	50	500.000	ND	72.2	49 - 114			
Ethyl tert-butyl ether	41.9800	5.0	50.0000	ND	84.0	54 - 120			
Ethylbenzene	66.6400	5.0	100.000	ND	66.6	42 - 123			
Freon-113	50.6100	5.0	50.0000	ND	101	45 - 132			
Hexachlorobutadiene	22.3900	5.0	50.0000	ND	44.8	4 - 135			
Isopropylbenzene	33.3000	5.0	50.0000	ND	66.6	40 - 127			
m,p-Xylene	61.4400	10	100.000	ND	61.4	39 - 127			
Methylene chloride	35.8300	5.0	50.0000	ND	71.7	51 - 140			
MTBE	40.4000	5.0	50.0000	ND	80.8	52 - 120			
n-Butylbenzene	26.6800	5.0	50.0000	ND	53.4	19 - 141			
n-Propylbenzene	30.1700	5.0	50.0000	ND	60.3	34 - 131			
Naphthalene	5.26000	5.0	50.0000	ND	10.5	11 - 136			M2
o-Xylene	67.8900	5.0	100.000	ND	67.9	40 - 124			
sec-Butylbenzene	28.6900	5.0	50.0000	ND	57.4	29 - 132			



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Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike (B6J0781-MS1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

Styrene	31.4800	5.0	50.0000	ND	63.0	36 - 130			
tert-Amyl methyl ether	40.7500	5.0	50.0000	ND	81.5	49 - 119			
tert-Butanol	214.630	100	250.000	ND	85.9	29 - 138			
tert-Butylbenzene	30.2100	5.0	50.0000	ND	60.4	34 - 129			
Tetrachloroethene	34.1900	5.0	50.0000	ND	68.4	37 - 132			
Toluene	73.1400	5.0	100.000	ND	73.1	48 - 122			
trans-1,2-Dichloroethene	41.0600	5.0	50.0000	ND	82.1	51 - 123			
trans-1,3-Dichloropropene	36.1000	5.0	50.0000	ND	72.2	38 - 125			
Trichloroethene	38.2800	5.0	50.0000	ND	76.6	41 - 136			
Trichlorofluoromethane	45.7300	5.0	50.0000	ND	91.5	44 - 126			
Vinyl acetate	21.9800	50	500.000	ND	4.40	0 - 154			J
Vinyl chloride	52.3000	5.0	50.0000	ND	105	47 - 122			
Surrogate: 1,2-Dichloroethane-d4	54.40		50.0000		109	12 - 186			
Surrogate: 4-Bromofluorobenzene	50.88		50.0000		102	23 - 162			
Surrogate: Dibromofluoromethane	53.15		50.0000		106	23 - 179			
Surrogate: Toluene-d8	51.97		50.0000		104	26 - 164			

Matrix Spike Dup (B6J0781-MSD1)

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

1,1,1,2-Tetrachloroethane	32.5700	5.0	50.0000	ND	65.1	45 - 124	7.85	20	
1,1,1-Trichloroethane	38.5000	5.0	50.0000	ND	77.0	53 - 125	10.6	20	
1,1,2,2-Tetrachloroethane	29.7500	5.0	50.0000	ND	59.5	42 - 117	11.4	20	
1,1,2-Trichloroethane	33.6600	5.0	50.0000	ND	67.3	48 - 120	11.1	20	
1,1-Dichloroethane	39.6800	5.0	50.0000	ND	79.4	54 - 116	7.24	20	
1,1-Dichloroethene	37.3300	5.0	50.0000	ND	74.7	47 - 123	26.4	20	R
1,1-Dichloropropene	36.6800	5.0	50.0000	ND	73.4	48 - 126	10.1	20	
1,2,3-Trichloropropane	30.8900	5.0	50.0000	ND	61.8	46 - 118	7.84	20	
1,2,3-Trichlorobenzene	15.7600	5.0	50.0000	ND	31.5	1 - 132	18.0	20	
1,2,4-Trichlorobenzene	17.4800	5.0	50.0000	ND	35.0	2 - 138	15.8	20	
1,2,4-Trimethylbenzene	15.7100	5.0	50.0000	ND	31.4	32 - 129	31.8	20	M2, R
1,2-Dibromo-3-chloropropane	32.1000	10	50.0000	ND	64.2	34 - 130	13.1	20	
1,2-Dibromoethane	33.5200	5.0	50.0000	ND	67.0	45 - 125	10.1	20	
1,2-Dichlorobenzene	23.5400	5.0	50.0000	ND	47.1	25 - 130	15.2	20	
1,2-Dichloroethane	34.5900	5.0	50.0000	ND	69.2	51 - 119	7.38	20	
1,2-Dichloropropane	35.5100	5.0	50.0000	ND	71.0	54 - 113	6.33	20	
1,3,5-Trimethylbenzene	22.7000	5.0	50.0000	ND	45.4	34 - 128	18.9	20	
1,3-Dichlorobenzene	26.0800	5.0	50.0000	ND	52.2	26 - 130	9.29	20	
1,3-Dichloropropane	33.5700	5.0	50.0000	ND	67.1	53 - 117	9.94	20	
1,4-Dichlorobenzene	26.0400	5.0	50.0000	ND	52.1	26 - 130	10.8	20	
2,2-Dichloropropane	42.0500	5.0	50.0000	ND	84.1	52 - 128	8.73	20	
2-Chlorotoluene	25.4900	5.0	50.0000	ND	51.0	34 - 126	12.4	20	
4-Chlorotoluene	26.8500	5.0	50.0000	ND	53.7	32 - 128	10.5	20	



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Project Number : Roosevelt HS, 265642
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Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike Dup (B6J0781-MSD1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

4-Isopropyltoluene	26.9700	5.0	50.0000	ND	53.9	28 - 133	6.63	20	
Benzene	71.4100	5.0	100.000	ND	71.4	55 - 113	7.78	20	
Bromobenzene	27.8500	5.0	50.0000	ND	55.7	36 - 122	11.8	20	
Bromochloromethane	36.5200	5.0	50.0000	ND	73.0	50 - 118	7.79	20	
Bromodichloromethane	33.4000	5.0	50.0000	ND	66.8	51 - 117	9.06	20	
Bromoform	31.7100	5.0	50.0000	ND	63.4	39 - 130	9.81	20	
Bromomethane	52.0100	5.0	50.0000	ND	104	38 - 151	9.35	20	
Carbon disulfide	45.0900	5.0	50.0000	ND	90.2	38 - 126	11.3	20	
Carbon tetrachloride	38.7400	5.0	50.0000	ND	77.5	43 - 141	9.07	20	
Chlorobenzene	31.6800	5.0	50.0000	ND	63.4	42 - 122	9.21	20	
Chloroethane	48.9800	5.0	50.0000	ND	98.0	42 - 129	6.13	20	
Chloroform	36.8800	5.0	50.0000	ND	73.8	56 - 117	7.42	20	
Chloromethane	52.0200	5.0	50.0000	ND	104	35 - 127	3.64	20	
cis-1,2-Dichloroethene	37.1700	5.0	50.0000	ND	74.3	50 - 118	7.96	20	
cis-1,3-Dichloropropene	35.0400	5.0	50.0000	ND	70.1	45 - 118	9.31	20	
Di-isopropyl ether	37.9400	5.0	50.0000	ND	75.9	51 - 119	5.59	20	
Dibromochloromethane	31.9500	5.0	50.0000	ND	63.9	47 - 120	9.54	20	
Dibromomethane	33.5000	5.0	50.0000	ND	67.0	48 - 118	10.5	20	
Dichlorodifluoromethane	54.1000	5.0	50.0000	ND	108	43 - 126	11.2	20	
Ethyl Acetate	33.0700	50	500.000	ND	6.61	22 - 145	94.9	20	M2, R, J
Ethyl Ether	339.530	50	500.000	ND	67.9	49 - 114	6.17	20	
Ethyl tert-butyl ether	39.1000	5.0	50.0000	ND	78.2	54 - 120	7.10	20	
Ethylbenzene	61.9100	5.0	100.000	ND	61.9	42 - 123	7.36	20	
Freon-113	41.4400	5.0	50.0000	ND	82.9	45 - 132	19.9	20	
Hexachlorobutadiene	20.8800	5.0	50.0000	ND	41.8	4 - 135	6.98	20	
Isopropylbenzene	31.2700	5.0	50.0000	ND	62.5	40 - 127	6.29	20	
m,p-Xylene	54.8100	10	100.000	ND	54.8	39 - 127	11.4	20	
Methylene chloride	33.2500	5.0	50.0000	ND	66.5	51 - 140	7.47	20	
MTBE	38.5900	5.0	50.0000	ND	77.2	52 - 120	4.58	20	
n-Butylbenzene	25.1200	5.0	50.0000	ND	50.2	19 - 141	6.02	20	
n-Propylbenzene	28.2200	5.0	50.0000	ND	56.4	34 - 131	6.68	20	
Naphthalene	1.37000	5.0	50.0000	ND	2.74	11 - 136	117	20	M2, R, J
o-Xylene	61.7600	5.0	100.000	ND	61.8	40 - 124	9.46	20	
sec-Butylbenzene	27.0700	5.0	50.0000	ND	54.1	29 - 132	5.81	20	
Styrene	26.7500	5.0	50.0000	ND	53.5	36 - 130	16.2	20	
tert-Amyl methyl ether	38.2600	5.0	50.0000	ND	76.5	49 - 119	6.30	20	
tert-Butanol	191.370	100	250.000	ND	76.5	29 - 138	11.5	20	
tert-Butylbenzene	28.5500	5.0	50.0000	ND	57.1	34 - 129	5.65	20	
Tetrachloroethene	32.3400	5.0	50.0000	ND	64.7	37 - 132	5.56	20	
Toluene	67.3000	5.0	100.000	ND	67.3	48 - 122	8.32	20	
trans-1,2-Dichloroethene	37.2800	5.0	50.0000	ND	74.6	51 - 123	9.65	20	
trans-1,3-Dichloropropene	31.6000	5.0	50.0000	ND	63.2	38 - 125	13.3	20	



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0781 - MSVOA_S (continued)

Matrix Spike Dup (B6J0781-MSD1) - Continued

Source: 1603802-07

Prepared: 10/28/2016 Analyzed: 10/28/2016

Trichloroethene	34.6500	5.0	50.0000	ND	69.3	41 - 136	9.95	20	
Trichlorofluoromethane	42.9800	5.0	50.0000	ND	86.0	44 - 126	6.20	20	
Vinyl acetate	ND	50	500.000	ND	NR	0 - 154		20	
Vinyl chloride	47.8000	5.0	50.0000	ND	95.6	47 - 122	8.99	20	
Surrogate: 1,2-Dichloroethane-d4	53.99		50.0000		108	12 - 186			
Surrogate: 4-Bromofluorobenzene	52.16		50.0000		104	23 - 162			
Surrogate: Dibromofluoromethane	53.43		50.0000		107	23 - 179			
Surrogate: Toluene-d8	51.62		50.0000		103	26 - 164			



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S

Blank (B6K0002-BLK1)

Prepared: 11/1/2016 Analyzed: 11/1/2016

1,1,1,2-Tetrachloroethane	ND	5.0			NR
1,1,1-Trichloroethane	ND	5.0			NR
1,1,2,2-Tetrachloroethane	ND	5.0			NR
1,1,2-Trichloroethane	ND	5.0			NR
1,1-Dichloroethane	ND	5.0			NR
1,1-Dichloroethene	ND	5.0			NR
1,1-Dichloropropene	ND	5.0			NR
1,2,3-Trichloropropane	ND	5.0			NR
1,2,3-Trichlorobenzene	ND	5.0			NR
1,2,4-Trichlorobenzene	ND	5.0			NR
1,2,4-Trimethylbenzene	ND	5.0			NR
1,2-Dibromo-3-chloropropane	ND	10			NR
1,2-Dibromoethane	ND	5.0			NR
1,2-Dichlorobenzene	ND	5.0			NR
1,2-Dichloroethane	ND	5.0			NR
1,2-Dichloropropane	ND	5.0			NR
1,3,5-Trimethylbenzene	ND	5.0			NR
1,3-Dichlorobenzene	ND	5.0			NR
1,3-Dichloropropane	ND	5.0			NR
1,4-Dichlorobenzene	ND	5.0			NR
2,2-Dichloropropane	ND	5.0			NR
2-Chlorotoluene	ND	5.0			NR
4-Chlorotoluene	ND	5.0			NR
4-Isopropyltoluene	ND	5.0			NR
Benzene	ND	5.0			NR
Bromobenzene	ND	5.0			NR
Bromochloromethane	ND	5.0			NR
Bromodichloromethane	ND	5.0			NR
Bromoform	ND	5.0			NR
Bromomethane	ND	5.0			NR
Carbon disulfide	ND	5.0			NR
Carbon tetrachloride	ND	5.0			NR
Chlorobenzene	ND	5.0			NR
Chloroethane	ND	5.0			NR
Chloroform	ND	5.0			NR
Chloromethane	ND	5.0			NR
cis-1,2-Dichloroethene	ND	5.0			NR
cis-1,3-Dichloropropene	ND	5.0			NR
Di-isopropyl ether	ND	5.0			NR
Dibromochloromethane	ND	5.0			NR
Dibromomethane	ND	5.0			NR



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

Blank (B6K0002-BLK1) - Continued

Prepared: 11/1/2016 Analyzed: 11/1/2016

Dichlorodifluoromethane	ND	5.0				NR			
Ethyl Acetate	ND	50				NR			
Ethyl Ether	ND	50				NR			
Ethyl tert-butyl ether	ND	5.0				NR			
Ethylbenzene	ND	5.0				NR			
Freon-113	ND	5.0				NR			
Hexachlorobutadiene	ND	5.0				NR			
Isopropylbenzene	ND	5.0				NR			
m,p-Xylene	ND	10				NR			
Methylene chloride	ND	5.0				NR			
MTBE	ND	5.0				NR			
n-Butylbenzene	ND	5.0				NR			
n-Propylbenzene	ND	5.0				NR			
Naphthalene	ND	5.0				NR			
o-Xylene	ND	5.0				NR			
sec-Butylbenzene	ND	5.0				NR			
Styrene	ND	5.0				NR			
tert-Amyl methyl ether	ND	5.0				NR			
tert-Butanol	ND	100				NR			
tert-Butylbenzene	ND	5.0				NR			
Tetrachloroethene	ND	5.0				NR			
Toluene	ND	5.0				NR			
trans-1,2-Dichloroethene	ND	5.0				NR			
trans-1,3-Dichloropropene	ND	5.0				NR			
Trichloroethene	ND	5.0				NR			
Trichlorofluoromethane	ND	5.0				NR			
Vinyl acetate	ND	50				NR			
Vinyl chloride	ND	5.0				NR			

Surrogate: 1,2-Dichloroethane-d4	56.74		50.0000		113	12 - 186
Surrogate: 4-Bromofluorobenzene	49.69		50.0000		99.4	23 - 162
Surrogate: Dibromofluoromethane	51.44		50.0000		103	23 - 179
Surrogate: Toluene-d8	52.04		50.0000		104	26 - 164

LCS (B6K0002-BS1)

Prepared: 11/1/2016 Analyzed: 11/1/2016

1,1,1,2-Tetrachloroethane	43.2500	5.0	50.0000		86.5	78 - 119
1,1,1-Trichloroethane	49.6000	5.0	50.0000		99.2	75 - 123
1,1,2,2-Tetrachloroethane	37.7400	5.0	50.0000		75.5	65 - 117
1,1,2-Trichloroethane	42.9100	5.0	50.0000		85.8	79 - 108
1,1-Dichloroethane	51.5100	5.0	50.0000		103	69 - 120
1,1-Dichloroethene	60.7100	5.0	50.0000		121	59 - 126
1,1-Dichloropropene	49.1900	5.0	50.0000		98.4	76 - 121



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

LCS (B6K0002-BS1) - Continued

Prepared: 11/1/2016 Analyzed: 11/1/2016

1,2,3-Trichloropropane	39.1500	5.0	50.0000		78.3	66 - 118			
1,2,3-Trichlorobenzene	42.6100	5.0	50.0000		85.2	75 - 116			
1,2,4-Trichlorobenzene	44.7600	5.0	50.0000		89.5	79 - 121			
1,2,4-Trimethylbenzene	43.8100	5.0	50.0000		87.6	80 - 118			
1,2-Dibromo-3-chloropropane	42.2900	10	50.0000		84.6	65 - 122			
1,2-Dibromoethane	41.5800	5.0	50.0000		83.2	77 - 115			
1,2-Dichlorobenzene	44.3200	5.0	50.0000		88.6	81 - 115			
1,2-Dichloroethane	43.6800	5.0	50.0000		87.4	70 - 122			
1,2-Dichloropropane	43.9100	5.0	50.0000		87.8	77 - 110			
1,3,5-Trimethylbenzene	44.3000	5.0	50.0000		88.6	79 - 119			
1,3-Dichlorobenzene	43.6800	5.0	50.0000		87.4	81 - 116			
1,3-Dichloropropane	41.5400	5.0	50.0000		83.1	79 - 113			
1,4-Dichlorobenzene	43.2200	5.0	50.0000		86.4	80 - 117			
2,2-Dichloropropane	48.3300	5.0	50.0000		96.7	70 - 129			
2-Chlorotoluene	43.8000	5.0	50.0000		87.6	76 - 119			
4-Chlorotoluene	44.1400	5.0	50.0000		88.3	79 - 119			
4-Isopropyltoluene	45.0800	5.0	50.0000		90.2	80 - 122			
Benzene	91.9700	5.0	100.000		92.0	79 - 111			
Bromobenzene	41.1600	5.0	50.0000		82.3	77 - 114			
Bromochloromethane	45.7400	5.0	50.0000		91.5	69 - 117			
Bromodichloromethane	43.4600	5.0	50.0000		86.9	79 - 114			
Bromoform	40.9400	5.0	50.0000		81.9	72 - 122			
Bromomethane	75.9800	5.0	50.0000		152	47 - 176			
Carbon disulfide	61.6000	5.0	50.0000		123	50 - 133			
Carbon tetrachloride	51.1300	5.0	50.0000		102	68 - 143			
Chlorobenzene	44.5800	5.0	50.0000		89.2	81 - 113			
Chloroethane	68.8400	5.0	50.0000		138	47 - 148			
Chloroform	48.7900	5.0	50.0000		97.6	77 - 116			
Chloromethane	67.5200	5.0	50.0000		135	39 - 141			
cis-1,2-Dichloroethene	48.6100	5.0	50.0000		97.2	68 - 120			
cis-1,3-Dichloropropene	45.3200	5.0	50.0000		90.6	74 - 113			
Di-isopropyl ether	46.8200	5.0	50.0000		93.6	62 - 124			
Dibromochloromethane	41.0600	5.0	50.0000		82.1	78 - 114			
Dibromomethane	41.7000	5.0	50.0000		83.4	74 - 112			
Dichlorodifluoromethane	69.1600	5.0	50.0000		138	49 - 138			
Ethyl Acetate	445.030	50	500.000		89.0	63 - 131			
Ethyl Ether	422.950	50	500.000		84.6	56 - 123			
Ethyl tert-butyl ether	46.9600	5.0	50.0000		93.9	68 - 121			
Ethylbenzene	87.9200	5.0	100.000		87.9	82 - 112			
Freon-113	61.2300	5.0	50.0000		122	65 - 133			
Hexachlorobutadiene	47.5600	5.0	50.0000		95.1	76 - 131			
Isopropylbenzene	46.3300	5.0	50.0000		92.7	77 - 122			



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

LCS (B6K0002-BS1) - Continued

Prepared: 11/1/2016 Analyzed: 11/1/2016

m,p-Xylene	86.1800	10	100.000		86.2	80 - 116			
Methylene chloride	44.2700	5.0	50.0000		88.5	67 - 144			
MTBE	44.7800	5.0	50.0000		89.6	62 - 120			
n-Butylbenzene	45.7900	5.0	50.0000		91.6	78 - 134			
n-Propylbenzene	44.4600	5.0	50.0000		88.9	77 - 125			
Naphthalene	40.9000	5.0	50.0000		81.8	66 - 125			
o-Xylene	90.9300	5.0	100.000		90.9	80 - 113			
sec-Butylbenzene	45.2900	5.0	50.0000		90.6	79 - 124			
Styrene	45.9100	5.0	50.0000		91.8	82 - 117			
tert-Amyl methyl ether	43.0800	5.0	50.0000		86.2	62 - 118			
tert-Butanol	170.680	100	250.000		68.3	35 - 127			
tert-Butylbenzene	44.8900	5.0	50.0000		89.8	78 - 121			
Tetrachloroethene	47.1400	5.0	50.0000		94.3	75 - 124			
Toluene	89.8600	5.0	100.000		89.9	79 - 115			
trans-1,2-Dichloroethene	49.3200	5.0	50.0000		98.6	65 - 127			
trans-1,3-Dichloropropene	42.1300	5.0	50.0000		84.3	73 - 115			
Trichloroethene	46.0800	5.0	50.0000		92.2	77 - 119			
Trichlorofluoromethane	59.1600	5.0	50.0000		118	57 - 134			
Vinyl acetate	491.220	50	500.000		98.2	62 - 147			
Vinyl chloride	60.9700	5.0	50.0000		122	53 - 133			
Surrogate: 1,2-Dichloroethane-d4	54.52		50.0000		109	12 - 186			
Surrogate: 4-Bromofluorobenzene	51.02		50.0000		102	23 - 162			
Surrogate: Dibromofluoromethane	54.60		50.0000		109	23 - 179			
Surrogate: Toluene-d8	53.24		50.0000		106	26 - 164			

Duplicate (B6K0002-DUP1)

Source: 1603781-01

Prepared: 11/1/2016 Analyzed: 11/1/2016

1,1,1,2-Tetrachloroethane	ND	5.0	ND	NR		20
1,1,1-Trichloroethane	ND	5.0	ND	NR		20
1,1,2,2-Tetrachloroethane	ND	5.0	ND	NR		20
1,1,2-Trichloroethane	ND	5.0	ND	NR		20
1,1-Dichloroethane	ND	5.0	ND	NR		20
1,1-Dichloroethene	ND	5.0	ND	NR		20
1,1-Dichloropropene	ND	5.0	ND	NR		20
1,2,3-Trichloropropane	ND	5.0	ND	NR		20
1,2,3-Trichlorobenzene	ND	5.0	ND	NR		20
1,2,4-Trichlorobenzene	ND	5.0	ND	NR		20
1,2,4-Trimethylbenzene	ND	5.0	ND	NR		20
1,2-Dibromo-3-chloropropane	ND	10	ND	NR		20
1,2-Dibromoethane	ND	5.0	ND	NR		20
1,2-Dichlorobenzene	ND	5.0	ND	NR		20
1,2-Dichloroethane	ND	5.0	ND	NR		20



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

Duplicate (B6K0002-DUP1) - Continued

Source: 1603781-01

Prepared: 11/1/2016 Analyzed: 11/1/2016

1,2-Dichloropropane	ND	5.0		ND	NR			20	
1,3,5-Trimethylbenzene	ND	5.0		ND	NR			20	
1,3-Dichlorobenzene	ND	5.0		ND	NR			20	
1,3-Dichloropropane	ND	5.0		ND	NR			20	
1,4-Dichlorobenzene	ND	5.0		ND	NR			20	
2,2-Dichloropropane	ND	5.0		ND	NR			20	
2-Chlorotoluene	ND	5.0		ND	NR			20	
4-Chlorotoluene	ND	5.0		ND	NR			20	
4-Isopropyltoluene	ND	5.0		ND	NR			20	
Benzene	ND	5.0		ND	NR			20	
Bromobenzene	ND	5.0		ND	NR			20	
Bromochloromethane	ND	5.0		ND	NR			20	
Bromodichloromethane	ND	5.0		ND	NR			20	
Bromoform	ND	5.0		ND	NR			20	
Bromomethane	ND	5.0		ND	NR			20	
Carbon disulfide	ND	5.0		ND	NR			20	
Carbon tetrachloride	ND	5.0		ND	NR			20	
Chlorobenzene	ND	5.0		ND	NR			20	
Chloroethane	ND	5.0		ND	NR			20	
Chloroform	ND	5.0		ND	NR			20	
Chloromethane	ND	5.0		ND	NR			20	
cis-1,2-Dichloroethene	ND	5.0		ND	NR			20	
cis-1,3-Dichloropropene	ND	5.0		ND	NR			20	
Di-isopropyl ether	ND	5.0		ND	NR			20	
Dibromochloromethane	ND	5.0		ND	NR			20	
Dibromomethane	ND	5.0		ND	NR			20	
Dichlorodifluoromethane	ND	5.0		ND	NR			20	
Ethyl Acetate	ND	50		ND	NR			20	
Ethyl Ether	ND	50		ND	NR			20	
Ethyl tert-butyl ether	ND	5.0		ND	NR			20	
Ethylbenzene	ND	5.0		ND	NR			20	
Freon-113	ND	5.0		ND	NR			20	
Hexachlorobutadiene	ND	5.0		ND	NR			20	
Isopropylbenzene	ND	5.0		ND	NR			20	
m,p-Xylene	ND	10		ND	NR			20	
Methylene chloride	ND	5.0		ND	NR			20	
MTBE	ND	5.0		ND	NR			20	
n-Butylbenzene	ND	5.0		ND	NR			20	
n-Propylbenzene	ND	5.0		ND	NR			20	
Naphthalene	ND	5.0		ND	NR			20	
o-Xylene	ND	5.0		ND	NR			20	
sec-Butylbenzene	ND	5.0		ND	NR			20	



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

Duplicate (B6K0002-DUP1) - Continued

Source: 1603781-01

Prepared: 11/1/2016 Analyzed: 11/1/2016

Styrene	ND	5.0		ND	NR			20	
tert-Amyl methyl ether	ND	5.0		ND	NR			20	
tert-Butanol	ND	100		ND	NR			20	
tert-Butylbenzene	ND	5.0		ND	NR			20	
Tetrachloroethene	8.35000	5.0		10.0300	NR		18.3	20	
Toluene	ND	5.0		ND	NR			20	
trans-1,2-Dichloroethene	ND	5.0		ND	NR			20	
trans-1,3-Dichloropropene	ND	5.0		ND	NR			20	
Trichloroethene	ND	5.0		ND	NR			20	
Trichlorofluoromethane	ND	5.0		ND	NR			20	
Vinyl acetate	ND	50		ND	NR			20	
Vinyl chloride	ND	5.0		ND	NR			20	
Surrogate: 1,2-Dichloroethane-d4	46.23		50.0000		92.5	12 - 186			
Surrogate: 4-Bromofluorobenzene	48.49		50.0000		97.0	23 - 162			
Surrogate: Dibromofluoromethane	50.28		50.0000		101	23 - 179			
Surrogate: Toluene-d8	51.99		50.0000		104	26 - 164			

Matrix Spike (B6K0002-MS1)

Source: 1603835-06

Prepared: 11/1/2016 Analyzed: 11/1/2016

1,1,1,2-Tetrachloroethane	40.9300	5.0	50.0000	ND	81.9	45 - 124			
1,1,1-Trichloroethane	47.9300	5.0	50.0000	ND	95.9	53 - 125			
1,1,2,2-Tetrachloroethane	37.1700	5.0	50.0000	ND	74.3	42 - 117			
1,1,2-Trichloroethane	41.3100	5.0	50.0000	ND	82.6	48 - 120			
1,1-Dichloroethane	48.7000	5.0	50.0000	ND	97.4	54 - 116			
1,1-Dichloroethene	53.1500	5.0	50.0000	ND	106	47 - 123			
1,1-Dichloropropene	47.5800	5.0	50.0000	ND	95.2	48 - 126			
1,2,3-Trichloropropane	38.3700	5.0	50.0000	ND	76.7	46 - 118			
1,2,3-Trichlorobenzene	39.6300	5.0	50.0000	ND	79.3	1 - 132			
1,2,4-Trichlorobenzene	41.6800	5.0	50.0000	ND	83.4	2 - 138			
1,2,4-Trimethylbenzene	41.1800	5.0	50.0000	ND	82.4	32 - 129			
1,2-Dibromo-3-chloropropane	41.8500	10	50.0000	ND	83.7	34 - 130			
1,2-Dibromoethane	42.7300	5.0	50.0000	ND	85.5	45 - 125			
1,2-Dichlorobenzene	40.7900	5.0	50.0000	ND	81.6	25 - 130			
1,2-Dichloroethane	43.0000	5.0	50.0000	ND	86.0	51 - 119			
1,2-Dichloropropane	42.5500	5.0	50.0000	ND	85.1	54 - 113			
1,3,5-Trimethylbenzene	41.8400	5.0	50.0000	ND	83.7	34 - 128			
1,3-Dichlorobenzene	40.8100	5.0	50.0000	ND	81.6	26 - 130			
1,3-Dichloropropane	40.5000	5.0	50.0000	ND	81.0	53 - 117			
1,4-Dichlorobenzene	40.0600	5.0	50.0000	ND	80.1	26 - 130			
2,2-Dichloropropane	46.6900	5.0	50.0000	ND	93.4	52 - 128			
2-Chlorotoluene	41.0600	5.0	50.0000	ND	82.1	34 - 126			
4-Chlorotoluene	40.5600	5.0	50.0000	ND	81.1	32 - 128			



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

Matrix Spike (B6K0002-MS1) - Continued

Source: 1603835-06

Prepared: 11/1/2016 Analyzed: 11/1/2016

4-Isopropyltoluene	44.0900	5.0	50.0000	ND	88.2	28 - 133			
Benzene	88.5600	5.0	100.000	1.19000	87.4	55 - 113			
Bromobenzene	38.5300	5.0	50.0000	ND	77.1	36 - 122			
Bromochloromethane	44.4500	5.0	50.0000	ND	88.9	50 - 118			
Bromodichloromethane	42.1100	5.0	50.0000	ND	84.2	51 - 117			
Bromoform	39.9600	5.0	50.0000	ND	79.9	39 - 130			
Bromomethane	67.9400	5.0	50.0000	ND	136	38 - 151			
Carbon disulfide	63.5500	5.0	50.0000	4.97000	117	38 - 126			
Carbon tetrachloride	50.4700	5.0	50.0000	ND	101	43 - 141			
Chlorobenzene	40.9600	5.0	50.0000	ND	81.9	42 - 122			
Chloroethane	65.9200	5.0	50.0000	ND	132	42 - 129			M1
Chloroform	46.1600	5.0	50.0000	ND	92.3	56 - 117			
Chloromethane	62.8400	5.0	50.0000	ND	126	35 - 127			
cis-1,2-Dichloroethene	45.6400	5.0	50.0000	ND	91.3	50 - 118			
cis-1,3-Dichloropropene	44.8600	5.0	50.0000	ND	89.7	45 - 118			
Di-isopropyl ether	45.6800	5.0	50.0000	ND	91.4	51 - 119			
Dibromochloromethane	39.6000	5.0	50.0000	ND	79.2	47 - 120			
Dibromomethane	41.2400	5.0	50.0000	ND	82.5	48 - 118			
Dichlorodifluoromethane	69.2300	5.0	50.0000	ND	138	43 - 126			M1
Ethyl Acetate	465.750	50	500.000	ND	93.2	22 - 145			
Ethyl Ether	415.090	50	500.000	ND	83.0	49 - 114			
Ethyl tert-butyl ether	46.4200	5.0	50.0000	ND	92.8	54 - 120			
Ethylbenzene	82.4700	5.0	100.000	ND	82.5	42 - 123			
Freon-113	60.5100	5.0	50.0000	ND	121	45 - 132			
Hexachlorobutadiene	46.3200	5.0	50.0000	ND	92.6	4 - 135			
Isopropylbenzene	44.5000	5.0	50.0000	ND	89.0	40 - 127			
m,p-Xylene	79.5600	10	100.000	ND	79.6	39 - 127			
Methylene chloride	40.4900	5.0	50.0000	ND	81.0	51 - 140			
MTBE	45.4000	5.0	50.0000	ND	90.8	52 - 120			
n-Butylbenzene	44.7200	5.0	50.0000	ND	89.4	19 - 141			
n-Propylbenzene	42.7100	5.0	50.0000	ND	85.4	34 - 131			
Naphthalene	42.2200	5.0	50.0000	ND	84.4	11 - 136			
o-Xylene	84.3300	5.0	100.000	ND	84.3	40 - 124			
sec-Butylbenzene	44.4000	5.0	50.0000	ND	88.8	29 - 132			
Styrene	42.5000	5.0	50.0000	ND	85.0	36 - 130			
tert-Amyl methyl ether	43.4800	5.0	50.0000	ND	87.0	49 - 119			
tert-Butanol	176.210	100	250.000	ND	70.5	29 - 138			
tert-Butylbenzene	43.4500	5.0	50.0000	ND	86.9	34 - 129			
Tetrachloroethene	45.4800	5.0	50.0000	1.86000	87.2	37 - 132			
Toluene	85.6800	5.0	100.000	ND	85.7	48 - 122			
trans-1,2-Dichloroethene	47.3100	5.0	50.0000	ND	94.6	51 - 123			
trans-1,3-Dichloropropene	41.1200	5.0	50.0000	ND	82.2	38 - 125			



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

Matrix Spike (B6K0002-MS1) - Continued

Source: 1603835-06

Prepared: 11/1/2016 Analyzed: 11/1/2016

Trichloroethene	45.4600	5.0	50.0000	ND	90.9	41 - 136			
Trichlorofluoromethane	56.3800	5.0	50.0000	ND	113	44 - 126			
Vinyl acetate	461.990	50	500.000	ND	92.4	0 - 154			
Vinyl chloride	59.6600	5.0	50.0000	ND	119	47 - 122			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>56.00</i>		<i>50.0000</i>		<i>112</i>	<i>12 - 186</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.25</i>		<i>50.0000</i>		<i>100</i>	<i>23 - 162</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>54.38</i>		<i>50.0000</i>		<i>109</i>	<i>23 - 179</i>			
<i>Surrogate: Toluene-d8</i>	<i>51.96</i>		<i>50.0000</i>		<i>104</i>	<i>26 - 164</i>			

Matrix Spike Dup (B6K0002-MSD1)

Source: 1603835-06

Prepared: 11/1/2016 Analyzed: 11/1/2016

1,1,1,2-Tetrachloroethane	41.7700	5.0	50.0000	ND	83.5	45 - 124	2.03	20	
1,1,1-Trichloroethane	49.1500	5.0	50.0000	ND	98.3	53 - 125	2.51	20	
1,1,2,2-Tetrachloroethane	36.8600	5.0	50.0000	ND	73.7	42 - 117	0.837	20	
1,1,2-Trichloroethane	40.8700	5.0	50.0000	ND	81.7	48 - 120	1.07	20	
1,1-Dichloroethane	49.4700	5.0	50.0000	ND	98.9	54 - 116	1.57	20	
1,1-Dichloroethene	56.7200	5.0	50.0000	ND	113	47 - 123	6.50	20	
1,1-Dichloropropene	46.7600	5.0	50.0000	ND	93.5	48 - 126	1.74	20	
1,2,3-Trichloropropane	38.4100	5.0	50.0000	ND	76.8	46 - 118	0.104	20	
1,2,3-Trichlorobenzene	39.9200	5.0	50.0000	ND	79.8	1 - 132	0.729	20	
1,2,4-Trichlorobenzene	41.9400	5.0	50.0000	ND	83.9	2 - 138	0.622	20	
1,2,4-Trimethylbenzene	41.5100	5.0	50.0000	ND	83.0	32 - 129	0.798	20	
1,2-Dibromo-3-chloropropane	43.5300	10	50.0000	ND	87.1	34 - 130	3.94	20	
1,2-Dibromoethane	42.3700	5.0	50.0000	ND	84.7	45 - 125	0.846	20	
1,2-Dichlorobenzene	41.4800	5.0	50.0000	ND	83.0	25 - 130	1.68	20	
1,2-Dichloroethane	40.7600	5.0	50.0000	ND	81.5	51 - 119	5.35	20	
1,2-Dichloropropane	42.1400	5.0	50.0000	ND	84.3	54 - 113	0.968	20	
1,3,5-Trimethylbenzene	41.9200	5.0	50.0000	ND	83.8	34 - 128	0.191	20	
1,3-Dichlorobenzene	40.8500	5.0	50.0000	ND	81.7	26 - 130	0.0980	20	
1,3-Dichloropropane	41.5000	5.0	50.0000	ND	83.0	53 - 117	2.44	20	
1,4-Dichlorobenzene	40.4000	5.0	50.0000	ND	80.8	26 - 130	0.845	20	
2,2-Dichloropropane	48.8100	5.0	50.0000	ND	97.6	52 - 128	4.44	20	
2-Chlorotoluene	40.7800	5.0	50.0000	ND	81.6	34 - 126	0.684	20	
4-Chlorotoluene	40.8600	5.0	50.0000	ND	81.7	32 - 128	0.737	20	
4-Isopropyltoluene	44.1600	5.0	50.0000	ND	88.3	28 - 133	0.159	20	
Benzene	86.5300	5.0	100.000	1.19000	85.3	55 - 113	2.32	20	
Bromobenzene	38.6700	5.0	50.0000	ND	77.3	36 - 122	0.363	20	
Bromochloromethane	44.7000	5.0	50.0000	ND	89.4	50 - 118	0.561	20	
Bromodichloromethane	41.3500	5.0	50.0000	ND	82.7	51 - 117	1.82	20	
Bromoform	41.4200	5.0	50.0000	ND	82.8	39 - 130	3.59	20	
Bromomethane	70.0200	5.0	50.0000	ND	140	38 - 151	3.02	20	
Carbon disulfide	62.5400	5.0	50.0000	4.97000	115	38 - 126	1.60	20	



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Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

Matrix Spike Dup (B6K0002-MSD1) - Continued

Source: 1603835-06

Prepared: 11/1/2016 Analyzed: 11/1/2016

Carbon tetrachloride	48.4400	5.0	50.0000	ND	96.9	43 - 141	4.10	20	
Chlorobenzene	41.8700	5.0	50.0000	ND	83.7	42 - 122	2.20	20	
Chloroethane	64.1000	5.0	50.0000	ND	128	42 - 129	2.80	20	
Chloroform	46.3300	5.0	50.0000	ND	92.7	56 - 117	0.368	20	
Chloromethane	63.6700	5.0	50.0000	ND	127	35 - 127	1.31	20	M1
cis-1,2-Dichloroethene	46.9900	5.0	50.0000	ND	94.0	50 - 118	2.91	20	
cis-1,3-Dichloropropene	43.8300	5.0	50.0000	ND	87.7	45 - 118	2.32	20	
Di-isopropyl ether	46.9600	5.0	50.0000	ND	93.9	51 - 119	2.76	20	
Dibromochloromethane	40.7600	5.0	50.0000	ND	81.5	47 - 120	2.89	20	
Dibromomethane	41.7400	5.0	50.0000	ND	83.5	48 - 118	1.21	20	
Dichlorodifluoromethane	67.9400	5.0	50.0000	ND	136	43 - 126	1.88	20	M1
Ethyl Acetate	482.020	50	500.000	ND	96.4	22 - 145	3.43	20	
Ethyl Ether	423.090	50	500.000	ND	84.6	49 - 114	1.91	20	
Ethyl tert-butyl ether	48.2800	5.0	50.0000	ND	96.6	54 - 120	3.93	20	
Ethylbenzene	83.5000	5.0	100.000	ND	83.5	42 - 123	1.24	20	
Freon-113	63.4600	5.0	50.0000	ND	127	45 - 132	4.76	20	
Hexachlorobutadiene	46.6400	5.0	50.0000	ND	93.3	4 - 135	0.688	20	
Isopropylbenzene	43.9800	5.0	50.0000	ND	88.0	40 - 127	1.18	20	
m,p-Xylene	81.0500	10	100.000	ND	81.0	39 - 127	1.86	20	
Methylene chloride	41.8900	5.0	50.0000	ND	83.8	51 - 140	3.40	20	
MTBE	47.1000	5.0	50.0000	ND	94.2	52 - 120	3.68	20	
n-Butylbenzene	44.5500	5.0	50.0000	ND	89.1	19 - 141	0.381	20	
n-Propylbenzene	42.3400	5.0	50.0000	ND	84.7	34 - 131	0.870	20	
Naphthalene	42.7000	5.0	50.0000	ND	85.4	11 - 136	1.13	20	
o-Xylene	86.1300	5.0	100.000	ND	86.1	40 - 124	2.11	20	
sec-Butylbenzene	43.8600	5.0	50.0000	ND	87.7	29 - 132	1.22	20	
Styrene	43.5700	5.0	50.0000	ND	87.1	36 - 130	2.49	20	
tert-Amyl methyl ether	46.0200	5.0	50.0000	ND	92.0	49 - 119	5.68	20	
tert-Butanol	187.730	100	250.000	ND	75.1	29 - 138	6.33	20	
tert-Butylbenzene	43.2100	5.0	50.0000	ND	86.4	34 - 129	0.554	20	
Tetrachloroethene	45.9000	5.0	50.0000	1.86000	88.1	37 - 132	0.919	20	
Toluene	83.3600	5.0	100.000	ND	83.4	48 - 122	2.74	20	
trans-1,2-Dichloroethene	47.1000	5.0	50.0000	ND	94.2	51 - 123	0.445	20	
trans-1,3-Dichloropropene	40.2800	5.0	50.0000	ND	80.6	38 - 125	2.06	20	
Trichloroethene	43.7400	5.0	50.0000	ND	87.5	41 - 136	3.86	20	
Trichlorofluoromethane	57.1200	5.0	50.0000	ND	114	44 - 126	1.30	20	
Vinyl acetate	452.560	50	500.000	ND	90.5	0 - 154	2.06	20	
Vinyl chloride	57.8200	5.0	50.0000	ND	116	47 - 122	3.13	20	
Surrogate: 1,2-Dichloroethane-d4	56.62		50.0000		113	12 - 186			
Surrogate: 4-Bromofluorobenzene	51.81		50.0000		104	23 - 162			
Surrogate: Dibromofluoromethane	55.55		50.0000		111	23 - 179			



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Reported : 11/07/2016

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0002 - MSVOA_S (continued)

Matrix Spike Dup (B6K0002-MSD1) - Continued

Source: 1603835-06

Prepared: 11/1/2016 Analyzed: 11/1/2016

Surrogate: Toluene-d8

51.74

50.0000

103

26 - 164



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Report To : John Nordenstam
Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W

Blank (B6J0681-BLK1)

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	ND	10			NR
1,2-Dichlorobenzene	ND	10			NR
1,3-Dichlorobenzene	ND	10			NR
1,4-Dichlorobenzene	ND	10			NR
2,4,5-Trichlorophenol	ND	10			NR
2,4,6-Trichlorophenol	ND	10			NR
2,4-Dichlorophenol	ND	10			NR
2,4-Dimethylphenol	ND	10			NR
2,4-Dinitrophenol	ND	50			NR
2,4-Dinitrotoluene	ND	10			NR
2,6-Dinitrotoluene	ND	10			NR
2-Chloronaphthalene	ND	10			NR
2-Chlorophenol	ND	10			NR
2-Methylnaphthalene	ND	10			NR
2-Methylphenol	ND	10			NR
2-Nitroaniline	ND	50			NR
2-Nitrophenol	ND	10			NR
3,3'-Dichlorobenzidine	ND	20			NR
3-Nitroaniline	ND	50			NR
4,6-Dinitro-2-methylphenol	ND	50			NR
4-Bromophenyl-phenylether	ND	10			NR
4-Chloro-3-methylphenol	ND	50			NR
4-Chloroaniline	ND	20			NR
4-Chlorophenyl-phenylether	ND	10			NR
4-Methylphenol	ND	10			NR
4-Nitroaniline	ND	20			NR
4-Nitrophenol	ND	50			NR
Acenaphthene	ND	10			NR
Acenaphthylene	ND	10			NR
Anthracene	ND	10			NR
Benzidine (M)	ND	50			NR
Benzo(a)anthracene	ND	10			NR
Benzo(a)pyrene	ND	10			NR
Benzo(b)fluoranthene	ND	10			NR
Benzo(g,h,i)perylene	ND	10			NR
Benzo(k)fluoranthene	ND	10			NR
Benzoic acid	ND	50			NR
Benzyl alcohol	ND	20			NR
bis(2-chloroethoxy)methane	ND	10			NR
bis(2-Chloroethyl)ether	ND	10			NR
bis(2-chloroisopropyl)ether	ND	10			NR



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Blank (B6J0681-BLK1) - Continued

Prepared: 10/25/2016 Analyzed: 10/26/2016

bis(2-ethylhexyl)phthalate	ND	10			NR				
Butylbenzylphthalate	ND	10			NR				
Chrysene	ND	10			NR				
Di-n-butylphthalate	ND	10			NR				
Di-n-octylphthalate	ND	10			NR				
Dibenz(a,h)anthracene	ND	10			NR				
Dibenzofuran	ND	10			NR				
Diethyl phthalate	ND	10			NR				
Dimethyl phthalate	ND	10			NR				
Fluoranthene	ND	10			NR				
Fluorene	ND	10			NR				
Hexachlorobenzene	ND	10			NR				
Hexachlorobutadiene	ND	20			NR				
Hexachlorocyclopentadiene	ND	10			NR				
Hexachloroethane	ND	10			NR				
Indeno(1,2,3-cd)pyrene	ND	10			NR				
Isophorone	ND	10			NR				
N-Nitroso-di-n propylamine	ND	10			NR				
N-Nitrosodiphenylamine	ND	10			NR				
Naphthalene	ND	10			NR				
Nitrobenzene	ND	10			NR				
Pentachlorophenol	ND	50			NR				
Phenanthrene	ND	10			NR				
Phenol	ND	10			NR				
Pyrene	ND	10			NR				
Pyridine	ND	50			NR				

Surrogate: 1,2-Dichlorobenzene-d4	58.07		100.000		58.1	17 - 101
Surrogate: 2,4,6-Tribromophenol	66.72		100.000		66.7	38 - 101
Surrogate: 2-Chlorophenol-d4	55.27		100.000		55.3	21 - 86
Surrogate: 2-Fluorobiphenyl	67.23		100.000		67.2	29 - 109
Surrogate: 2-Fluorophenol	31.93		100.000		31.9	9 - 58
Surrogate: 4-Terphenyl-d14	85.81		100.000		85.8	49 - 122
Surrogate: Nitrobenzene-d5	65.30		100.000		65.3	19 - 111
Surrogate: Phenol-d5	21.15		100.000		21.2	6 - 50

LCS (B6J0681-BS1)

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	68.9200	10	100.000		68.9	53 - 104
1,2-Dichlorobenzene	66.3000	10	100.000		66.3	48 - 96
1,3-Dichlorobenzene	61.9100	10	100.000		61.9	46 - 95
1,4-Dichlorobenzene	62.1800	10	100.000		62.2	46 - 94
2,4,5-Trichlorophenol	79.6200	10	100.000		79.6	56 - 128



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

LCS (B6J0681-BS1) - Continued

Prepared: 10/25/2016 Analyzed: 10/26/2016

2,4,6-Trichlorophenol	76.7100	10	100.000		76.7	49 - 143			
2,4-Dichlorophenol	65.8200	10	100.000		65.8	57 - 117			
2,4-Dimethylphenol	49.4200	10	100.000		49.4	41 - 109			
2,4-Dinitrophenol	103.300	50	100.000		103	49 - 169			
2,4-Dinitrotoluene	97.8700	10	100.000		97.9	72 - 133			
2,6-Dinitrotoluene	95.1300	10	100.000		95.1	70 - 129			
2-Chloronaphthalene	86.0800	10	100.000		86.1	64 - 114			
2-Chlorophenol	48.6500	10	100.000		48.6	38 - 102			
2-Methylnaphthalene	80.6400	10	100.000		80.6	63 - 110			
2-Methylphenol	44.7300	10	100.000		44.7	43 - 83			
2-Nitroaniline	97.2600	50	100.000		97.3	56 - 151			
2-Nitrophenol	69.6200	10	100.000		69.6	48 - 126			
3,3'-Dichlorobenzidine	109.160	20	100.000		109	23 - 171			
3-Nitroaniline	82.9200	50	100.000		82.9	60 - 116			
4,6-Dinitro-2-methylphenol	101.400	50	100.000		101	59 - 160			
4-Bromophenyl-phenylether	84.5800	10	100.000		84.6	66 - 124			
4-Chloro-3-methylphenol	65.4800	50	100.000		65.5	63 - 116			
4-Chloroaniline	71.3000	20	100.000		71.3	50 - 105			
4-Chlorophenyl-phenylether	79.9800	10	100.000		80.0	63 - 118			
4-Methylphenol	48.1200	10	100.000		48.1	42 - 83			
4-Nitroaniline	92.0300	20	100.000		92.0	66 - 122			
4-Nitrophenol	33.6700	50	100.000		33.7	29 - 72			J
Acenaphthene	79.9200	10	100.000		79.9	52 - 124			
Acenaphthylene	82.4200	10	100.000		82.4	58 - 110			
Anthracene	90.7700	10	100.000		90.8	62 - 124			
Benzidine (M)	55.7200	50	100.000		55.7	12 - 124			
Benzo(a)anthracene	94.7800	10	100.000		94.8	58 - 118			
Benzo(a)pyrene	95.6300	10	100.000		95.6	57 - 132			
Benzo(b)fluoranthene	92.1900	10	100.000		92.2	56 - 126			
Benzo(g,h,i)perylene	92.0400	10	100.000		92.0	52 - 125			
Benzo(k)fluoranthene	94.3100	10	100.000		94.3	50 - 131			
Benzoic acid	40.6400	50	100.000		40.6	0 - 142			J
Benzyl alcohol	65.2300	20	100.000		65.2	51 - 99			
bis(2-chloroethoxy)methane	70.7500	10	100.000		70.8	50 - 103			
bis(2-Chloroethyl)ether	65.1200	10	100.000		65.1	43 - 102			
bis(2-chloroisopropyl)ether	65.5200	10	100.000		65.5	32 - 112			
bis(2-ethylhexyl)phthalate	100.270	10	100.000		100	60 - 131			
Butylbenzylphthalate	92.0000	10	100.000		92.0	69 - 127			
Chrysene	88.5400	10	100.000		88.5	53 - 125			
Di-n-butylphthalate	107.170	10	100.000		107	64 - 137			
Di-n-octylphthalate	108.550	10	100.000		109	57 - 140			
Dibenz(a,h)anthracene	115.140	10	100.000		115	43 - 144			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

LCS (B6J0681-BS1) - Continued

Prepared: 10/25/2016 Analyzed: 10/26/2016

Dibenzofuran	88.7000	10	100.000		88.7	68 - 115		
Diethyl phthalate	100.110	10	100.000		100	63 - 142		
Dimethyl phthalate	91.5600	10	100.000		91.6	69 - 124		
Fluoranthene	91.7800	10	100.000		91.8	63 - 120		
Fluorene	83.8300	10	100.000		83.8	57 - 118		
Hexachlorobenzene	88.2800	10	100.000		88.3	69 - 121		
Hexachlorobutadiene	63.7000	20	100.000		63.7	43 - 99		
Hexachlorocyclopentadiene	76.8300	10	100.000		76.8	50 - 112		
Hexachloroethane	65.4300	10	100.000		65.4	42 - 112		
Indeno(1,2,3-cd)pyrene	112.110	10	100.000		112	54 - 148		
Isophorone	72.7100	10	100.000		72.7	57 - 102		
N-Nitroso-di-n propylamine	77.9000	10	100.000		77.9	57 - 115		
N-Nitrosodiphenylamine	104.520	10	100.000		105	73 - 123		
Naphthalene	71.1300	10	100.000		71.1	50 - 96		
Nitrobenzene	80.8400	10	100.000		80.8	59 - 112		
Pentachlorophenol	52.1800	50	100.000		52.2	51 - 144		
Phenanthrene	92.4100	10	100.000		92.4	57 - 121		
Phenol	23.6400	10	100.000		23.6	18 - 55		
Pyrene	93.3500	10	100.000		93.4	62 - 122		
Pyridine	26.1400	50	100.000		26.1	10 - 61		J
Surrogate: 1,2-Dichlorobenzene-d4	54.49		100.000		54.5	17 - 101		
Surrogate: 2,4,6-Tribromophenol	70.36		100.000		70.4	38 - 101		
Surrogate: 2-Chlorophenol-d4	50.70		100.000		50.7	21 - 86		
Surrogate: 2-Fluorobiphenyl	77.19		100.000		77.2	29 - 109		
Surrogate: 2-Fluorophenol	27.44		100.000		27.4	9 - 58		
Surrogate: 4-Terphenyl-d14	75.67		100.000		75.7	49 - 122		
Surrogate: Nitrobenzene-d5	68.72		100.000		68.7	19 - 111		
Surrogate: Phenol-d5	19.32		100.000		19.3	6 - 50		

Matrix Spike (B6J0681-MS1)

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	76.3900	10	100.000	ND	76.4	53 - 104
1,2-Dichlorobenzene	75.3600	10	100.000	ND	75.4	48 - 96
1,3-Dichlorobenzene	71.0800	10	100.000	ND	71.1	46 - 95
1,4-Dichlorobenzene	71.0000	10	100.000	ND	71.0	46 - 94
2,4,5-Trichlorophenol	92.0200	10	100.000	ND	92.0	56 - 128
2,4,6-Trichlorophenol	89.1400	10	100.000	ND	89.1	49 - 143
2,4-Dichlorophenol	74.3400	10	100.000	ND	74.3	57 - 117
2,4-Dimethylphenol	68.0200	10	100.000	ND	68.0	41 - 109
2,4-Dinitrophenol	123.010	50	100.000	ND	123	49 - 169
2,4-Dinitrotoluene	114.880	10	100.000	ND	115	72 - 133
2,6-Dinitrotoluene	109.810	10	100.000	ND	110	70 - 129



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Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike (B6J0681-MS1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

2-Chloronaphthalene	96.1000	10	100.000	ND	96.1	64 - 114			
2-Chlorophenol	56.2500	10	100.000	ND	56.2	38 - 102			
2-Methylnaphthalene	88.0900	10	100.000	ND	88.1	63 - 110			
2-Methylphenol	53.6000	10	100.000	ND	53.6	43 - 83			
2-Nitroaniline	114.220	50	100.000	ND	114	56 - 151			
2-Nitrophenol	75.5800	10	100.000	ND	75.6	48 - 126			
3,3'-Dichlorobenzidine	122.210	20	100.000	ND	122	23 - 171			
3-Nitroaniline	98.4700	50	100.000	ND	98.5	60 - 116			
4,6-Dinitro-2-methylphenol	117.090	50	100.000	ND	117	59 - 160			
4-Bromophenyl-phenylether	99.4200	10	100.000	ND	99.4	66 - 124			
4-Chloro-3-methylphenol	76.6700	50	100.000	ND	76.7	63 - 116			
4-Chloroaniline	85.2700	20	100.000	ND	85.3	50 - 105			
4-Chlorophenyl-phenylether	93.5300	10	100.000	ND	93.5	63 - 118			
4-Methylphenol	56.8200	10	100.000	ND	56.8	42 - 83			
4-Nitroaniline	109.120	20	100.000	ND	109	66 - 122			
4-Nitrophenol	43.7600	50	100.000	ND	43.8	29 - 72			J
Acenaphthene	88.6400	10	100.000	ND	88.6	52 - 124			
Acenaphthylene	92.1300	10	100.000	ND	92.1	58 - 110			
Anthracene	105.090	10	100.000	ND	105	62 - 124			
Benzidine (M)	ND	50	100.000	ND	NR	12 - 142			
Benzo(a)anthracene	111.100	10	100.000	ND	111	58 - 118			
Benzo(a)pyrene	116.630	10	100.000	ND	117	57 - 132			
Benzo(b)fluoranthene	113.360	10	100.000	ND	113	56 - 126			
Benzo(g,h,i)perylene	111.600	10	100.000	ND	112	52 - 125			
Benzo(k)fluoranthene	113.110	10	100.000	ND	113	50 - 131			
Benzoic acid	41.1200	50	100.000	ND	41.1	0 - 142			J
Benzyl alcohol	77.9700	20	100.000	ND	78.0	51 - 99			
bis(2-chloroethoxy)methane	78.8300	10	100.000	ND	78.8	50 - 103			
bis(2-Chloroethyl)ether	74.7200	10	100.000	ND	74.7	43 - 102			
bis(2-chloroisopropyl)ether	73.4500	10	100.000	ND	73.4	32 - 112			
bis(2-ethylhexyl)phthalate	117.570	10	100.000	ND	118	60 - 131			
Butylbenzylphthalate	105.080	10	100.000	ND	105	69 - 127			
Chrysene	101.170	10	100.000	ND	101	53 - 125			
Di-n-butylphthalate	126.010	10	100.000	ND	126	64 - 137			
Di-n-octylphthalate	135.270	10	100.000	ND	135	57 - 140			
Dibenz(a,h)anthracene	141.170	10	100.000	ND	141	43 - 144			
Dibenzofuran	99.2100	10	100.000	ND	99.2	68 - 115			
Diethyl phthalate	118.280	10	100.000	ND	118	63 - 142			
Dimethyl phthalate	108.890	10	100.000	ND	109	69 - 124			
Fluoranthene	102.350	10	100.000	ND	102	63 - 120			
Fluorene	94.8700	10	100.000	ND	94.9	57 - 118			
Hexachlorobenzene	101.550	10	100.000	ND	102	69 - 121			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike (B6J0681-MS1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

Hexachlorobutadiene	69.9000	20	100.000	ND	69.9	43 - 99			
Hexachlorocyclopentadiene	86.9200	10	100.000	ND	86.9	50 - 112			
Hexachloroethane	75.0400	10	100.000	ND	75.0	42 - 112			
Indeno(1,2,3-cd)pyrene	134.110	10	100.000	ND	134	54 - 148			
Isophorone	82.4400	10	100.000	ND	82.4	57 - 102			
N-Nitroso-di-n propylamine	88.2000	10	100.000	ND	88.2	57 - 115			
N-Nitrosodiphenylamine	121.520	10	100.000	ND	122	73 - 123			
Naphthalene	76.8900	10	100.000	ND	76.9	50 - 96			
Nitrobenzene	87.4900	10	100.000	ND	87.5	59 - 112			
Pentachlorophenol	62.0300	50	100.000	ND	62.0	51 - 144			
Phenanthrene	104.770	10	100.000	ND	105	57 - 121			
Phenol	28.3100	10	100.000	ND	28.3	18 - 55			
Pyrene	109.240	10	100.000	ND	109	62 - 122			
Pyridine	26.9400	50	100.000	ND	26.9	10 - 61			J

Surrogate: 1,2-Dichlorobenzene-d4	63.37		100.000		63.4	17 - 101			
Surrogate: 2,4,6-Tribromophenol	80.60		100.000		80.6	38 - 101			
Surrogate: 2-Chlorophenol-d4	58.15		100.000		58.2	21 - 86			
Surrogate: 2-Fluorobiphenyl	87.13		100.000		87.1	29 - 109			
Surrogate: 2-Fluorophenol	32.05		100.000		32.0	9 - 58			
Surrogate: 4-Terphenyl-d14	94.21		100.000		94.2	49 - 122			
Surrogate: Nitrobenzene-d5	76.24		100.000		76.2	19 - 111			
Surrogate: Phenol-d5	24.86		100.000		24.9	6 - 50			

Matrix Spike Dup (B6J0681-MSD1)

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

1,2,4-Trichlorobenzene	56.2600	10	100.000	ND	56.3	53 - 104	30.4	20	R
1,2-Dichlorobenzene	55.4600	10	100.000	ND	55.5	48 - 96	30.4	20	R
1,3-Dichlorobenzene	51.4200	10	100.000	ND	51.4	46 - 95	32.1	20	R
1,4-Dichlorobenzene	51.5800	10	100.000	ND	51.6	46 - 94	31.7	20	R
2,4,5-Trichlorophenol	77.0400	10	100.000	ND	77.0	56 - 128	17.7	20	
2,4,6-Trichlorophenol	72.5200	10	100.000	ND	72.5	49 - 143	20.6	20	R
2,4-Dichlorophenol	55.8600	10	100.000	ND	55.9	57 - 117	28.4	20	M2, R
2,4-Dimethylphenol	53.0000	10	100.000	ND	53.0	41 - 109	24.8	20	R
2,4-Dinitrophenol	112.030	50	100.000	ND	112	49 - 169	9.34	20	
2,4-Dinitrotoluene	103.200	10	100.000	ND	103	72 - 133	10.7	20	
2,6-Dinitrotoluene	96.8800	10	100.000	ND	96.9	70 - 129	12.5	20	
2-Chloronaphthalene	74.3400	10	100.000	ND	74.3	64 - 114	25.5	20	R
2-Chlorophenol	41.7100	10	100.000	ND	41.7	38 - 102	29.7	20	R
2-Methylnaphthalene	67.4800	10	100.000	ND	67.5	63 - 110	26.5	20	R
2-Methylphenol	42.2800	10	100.000	ND	42.3	43 - 83	23.6	20	M2, R
2-Nitroaniline	100.620	50	100.000	ND	101	56 - 151	12.7	20	
2-Nitrophenol	59.0700	10	100.000	ND	59.1	48 - 126	24.5	20	R



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike Dup (B6J0681-MSD1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

3,3'-Dichlorobenzidine	107.150	20	100.000	ND	107	23 - 171	13.1	20	
3-Nitroaniline	90.3000	50	100.000	ND	90.3	60 - 116	8.66	20	
4,6-Dinitro-2-methylphenol	104.620	50	100.000	ND	105	59 - 160	11.2	20	
4-Bromophenyl-phenylether	84.1500	10	100.000	ND	84.2	66 - 124	16.6	20	
4-Chloro-3-methylphenol	63.5300	50	100.000	ND	63.5	63 - 116	18.7	20	
4-Chloroaniline	75.4700	20	100.000	ND	75.5	50 - 105	12.2	20	
4-Chlorophenyl-phenylether	78.7500	10	100.000	ND	78.8	63 - 118	17.2	20	
4-Methylphenol	44.4200	10	100.000	ND	44.4	42 - 83	24.5	20	R
4-Nitroaniline	98.3900	20	100.000	ND	98.4	66 - 122	10.3	20	
4-Nitrophenol	36.6500	50	100.000	ND	36.6	29 - 72	17.7	20	J
Acenaphthene	71.9300	10	100.000	ND	71.9	52 - 124	20.8	20	R
Acenaphthylene	73.9600	10	100.000	ND	74.0	58 - 110	21.9	20	R
Anthracene	89.8000	10	100.000	ND	89.8	62 - 124	15.7	20	
Benzidine (M)	ND	50	100.000	ND	NR	12 - 142		20	
Benzo(a)anthracene	98.4100	10	100.000	ND	98.4	58 - 118	12.1	20	
Benzo(a)pyrene	102.570	10	100.000	ND	103	57 - 132	12.8	20	
Benzo(b)fluoranthene	99.4600	10	100.000	ND	99.5	56 - 126	13.1	20	
Benzo(g,h,i)perylene	95.8000	10	100.000	ND	95.8	52 - 125	15.2	20	
Benzo(k)fluoranthene	96.4000	10	100.000	ND	96.4	50 - 131	16.0	20	
Benzoic acid	ND	50	100.000	ND	NR	0 - 142		20	
Benzyl alcohol	63.4000	20	100.000	ND	63.4	51 - 99	20.6	20	R
bis(2-chloroethoxy)methane	59.4900	10	100.000	ND	59.5	50 - 103	28.0	20	R
bis(2-Chloroethyl)ether	54.3000	10	100.000	ND	54.3	43 - 102	31.7	20	R
bis(2-chloroisopropyl)ether	55.2600	10	100.000	ND	55.3	32 - 112	28.3	20	R
bis(2-ethylhexyl)phthalate	103.780	10	100.000	ND	104	60 - 131	12.5	20	
Butylbenzylphthalate	96.0000	10	100.000	ND	96.0	69 - 127	9.03	20	
Chrysene	90.3000	10	100.000	ND	90.3	53 - 125	11.4	20	
Di-n-butylphthalate	110.100	10	100.000	ND	110	64 - 137	13.5	20	
Di-n-octylphthalate	117.600	10	100.000	ND	118	57 - 140	14.0	20	
Dibenz(a,h)anthracene	119.700	10	100.000	ND	120	43 - 144	16.5	20	
Dibenzofuran	83.0000	10	100.000	ND	83.0	68 - 115	17.8	20	
Diethyl phthalate	105.250	10	100.000	ND	105	63 - 142	11.7	20	
Dimethyl phthalate	95.2400	10	100.000	ND	95.2	69 - 124	13.4	20	
Fluoranthene	91.4500	10	100.000	ND	91.4	63 - 120	11.2	20	
Fluorene	81.7500	10	100.000	ND	81.8	57 - 118	14.9	20	
Hexachlorobenzene	86.7000	10	100.000	ND	86.7	69 - 121	15.8	20	
Hexachlorobutadiene	50.3600	20	100.000	ND	50.4	43 - 99	32.5	20	R
Hexachlorocyclopentadiene	63.3600	10	100.000	ND	63.4	50 - 112	31.4	20	R
Hexachloroethane	54.4000	10	100.000	ND	54.4	42 - 112	31.9	20	R
Indeno(1,2,3-cd)pyrene	116.770	10	100.000	ND	117	54 - 148	13.8	20	
Isophorone	63.6400	10	100.000	ND	63.6	57 - 102	25.7	20	R
N-Nitroso-di-n propylamine	67.3700	10	100.000	ND	67.4	57 - 115	26.8	20	R



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0681 - MSSEMI_W (continued)

Matrix Spike Dup (B6J0681-MSD1) - Continued

Source: 1603719-07

Prepared: 10/25/2016 Analyzed: 10/26/2016

N-Nitrosodiphenylamine	104.840	10	100.000	ND	105	73 - 123	14.7	20	
Naphthalene	57.9700	10	100.000	ND	58.0	50 - 96	28.1	20	R
Nitrobenzene	66.4300	10	100.000	ND	66.4	59 - 112	27.4	20	R
Pentachlorophenol	55.5700	50	100.000	ND	55.6	51 - 144	11.0	20	
Phenanthrene	89.3300	10	100.000	ND	89.3	57 - 121	15.9	20	
Phenol	21.3700	10	100.000	ND	21.4	18 - 55	27.9	20	R
Pyrene	94.5400	10	100.000	ND	94.5	62 - 122	14.4	20	
Pyridine	28.9100	50	100.000	ND	28.9	10 - 61	7.05	20	J
Surrogate: 1,2-Dichlorobenzene-d4	45.99		100.000		46.0	17 - 101			
Surrogate: 2,4,6-Tribromophenol	72.53		100.000		72.5	38 - 101			
Surrogate: 2-Chlorophenol-d4	42.40		100.000		42.4	21 - 86			
Surrogate: 2-Fluorobiphenyl	66.13		100.000		66.1	29 - 109			
Surrogate: 2-Fluorophenol	21.85		100.000		21.8	9 - 58			
Surrogate: 4-Terphenyl-d14	81.90		100.000		81.9	49 - 122			
Surrogate: Nitrobenzene-d5	56.47		100.000		56.5	19 - 111			
Surrogate: Phenol-d5	16.19		100.000		16.2	6 - 50			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S

Blank (B6J0735-BLK1)

Prepared: 10/26/2016 Analyzed: 10/27/2016

1,2,4-Trichlorobenzene	ND	330			NR
1,2-Dichlorobenzene	ND	330			NR
1,3-Dichlorobenzene	ND	330			NR
1,4-Dichlorobenzene	ND	330			NR
2,4,5-Trichlorophenol	ND	330			NR
2,4,6-Trichlorophenol	ND	330			NR
2,4-Dichlorophenol	ND	1600			NR
2,4-Dimethylphenol	ND	330			NR
2,4-Dinitrophenol	ND	1600			NR
2,4-Dinitrotoluene	ND	330			NR
2,6-Dinitrotoluene	ND	330			NR
2-Chloronaphthalene	ND	330			NR
2-Chlorophenol	ND	330			NR
2-Methylnaphthalene	ND	330			NR
2-Methylphenol	ND	330			NR
2-Nitroaniline	ND	1600			NR
2-Nitrophenol	ND	330			NR
3,3'-Dichlorobenzidine	ND	660			NR
3-Nitroaniline	ND	1600			NR
4,6-Dinitro-2-methylphenol	ND	1600			NR
4-Bromophenyl-phenylether	ND	330			NR
4-Chloro-3-methylphenol	ND	660			NR
4-Chloroaniline	ND	660			NR
4-Chlorophenyl-phenylether	ND	330			NR
4-Methylphenol	ND	330			NR
4-Nitroaniline	ND	1600			NR
4-Nitrophenol	ND	330			NR
Acenaphthene	ND	330			NR
Acenaphthylene	ND	330			NR
Anthracene	ND	330			NR
Benzidine (M)	ND	1600			NR
Benzo(a)anthracene	ND	330			NR
Benzo(a)pyrene	ND	330			NR
Benzo(b)fluoranthene	ND	330			NR
Benzo(g,h,i)perylene	ND	330			NR
Benzo(k)fluoranthene	ND	330			NR
Benzoic acid	ND	1600			NR
Benzyl alcohol	ND	660			NR
bis(2-chloroethoxy)methane	ND	330			NR
bis(2-Chloroethyl)ether	ND	330			NR
bis(2-chloroisopropyl)ether	ND	330			NR



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

Blank (B6J0735-BLK1) - Continued

Prepared: 10/26/2016 Analyzed: 10/27/2016

bis(2-ethylhexyl)phthalate	ND	330			NR				
Butylbenzylphthalate	ND	330			NR				
Chrysene	ND	330			NR				
Di-n-butylphthalate	ND	330			NR				
Di-n-octylphthalate	ND	330			NR				
Dibenz(a,h)anthracene	ND	330			NR				
Dibenzofuran	ND	330			NR				
Diethyl phthalate	ND	330			NR				
Dimethyl phthalate	ND	330			NR				
Fluoranthene	ND	330			NR				
Fluorene	ND	330			NR				
Hexachlorobenzene	ND	330			NR				
Hexachlorobutadiene	ND	660			NR				
Hexachlorocyclopentadiene	ND	660			NR				
Hexachloroethane	ND	330			NR				
Indeno(1,2,3-cd)pyrene	ND	330			NR				
Isophorone	ND	330			NR				
N-Nitroso-di-n propylamine	ND	330			NR				
N-Nitrosodiphenylamine	ND	330			NR				
Naphthalene	ND	330			NR				
Nitrobenzene	ND	330			NR				
Pentachlorophenol	ND	1600			NR				
Phenanthrene	ND	330			NR				
Phenol	ND	330			NR				
Pyrene	ND	330			NR				
Pyridine	ND	1600			NR				

Surrogate: 1,2-Dichlorobenzene-d4	2055		3333.33		61.6	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2441		3333.33		73.2	12 - 129			
Surrogate: 2-Chlorophenol-d4	2189		3333.33		65.7	34 - 102			
Surrogate: 2-Fluorobiphenyl	2267		3333.33		68.0	25 - 116			
Surrogate: 2-Fluorophenol	2094		3333.33		62.8	32 - 101			
Surrogate: 4-Terphenyl-d14	3391		3333.33		102	34 - 125			
Surrogate: Nitrobenzene-d5	2300		3333.33		69.0	30 - 115			
Surrogate: Phenol-d5	2196		3333.33		65.9	34 - 104			

LCS (B6J0735-BS1)

Prepared: 10/26/2016 Analyzed: 10/27/2016

1,2,4-Trichlorobenzene	2437.00	330	3333.33		73.1	58 - 105			
1,2-Dichlorobenzene	2594.33	330	3333.33		77.8	58 - 99			
1,3-Dichlorobenzene	2376.00	330	3333.33		71.3	57 - 100			
1,4-Dichlorobenzene	2393.67	330	3333.33		71.8	57 - 93			
2,4,5-Trichlorophenol	2926.00	330	3333.33		87.8	63 - 128			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

LCS (B6J0735-BS1) - Continued

Prepared: 10/26/2016 Analyzed: 10/27/2016

2,4,6-Trichlorophenol	2742.00	330	3333.33		82.3	51 - 156			
2,4-Dichlorophenol	2521.00	1600	3333.33		75.6	56 - 140			
2,4-Dimethylphenol	2345.00	330	3333.33		70.4	47 - 134			
2,4-Dinitrophenol	3855.67	1600	3333.33		116	49 - 159			
2,4-Dinitrotoluene	3990.00	330	3333.33		120	66 - 132			
2,6-Dinitrotoluene	3678.00	330	3333.33		110	65 - 130			
2-Chloronaphthalene	2911.33	330	3333.33		87.3	65 - 112			
2-Chlorophenol	2259.33	330	3333.33		67.8	47 - 132			
2-Methylnaphthalene	2899.33	330	3333.33		87.0	62 - 118			
2-Methylphenol	2519.67	330	3333.33		75.6	54 - 113			
2-Nitroaniline	3723.67	1600	3333.33		112	53 - 152			
2-Nitrophenol	2564.33	330	3333.33		76.9	46 - 149			
3,3'-Dichlorobenzidine	4395.67	660	3333.33		132	45 - 155			
3-Nitroaniline	3524.00	1600	3333.33		106	58 - 126			
4,6-Dinitro-2-methylphenol	4065.33	1600	3333.33		122	55 - 175			
4-Bromophenyl-phenylether	3252.00	330	3333.33		97.6	62 - 118			
4-Chloro-3-methylphenol	2855.67	660	3333.33		85.7	61 - 145			
4-Chloroaniline	2975.00	660	3333.33		89.3	57 - 115			
4-Chlorophenyl-phenylether	2995.33	330	3333.33		89.9	60 - 117			
4-Methylphenol	2986.33	330	3333.33		89.6	58 - 120			
4-Nitroaniline	4004.33	1600	3333.33		120	62 - 132			
4-Nitrophenol	3974.67	330	3333.33		119	46 - 181			
Acenaphthene	2752.67	330	3333.33		82.6	53 - 120			
Acenaphthylene	2892.00	330	3333.33		86.8	57 - 112			
Anthracene	3530.67	330	3333.33		106	63 - 122			
Benzidine (M)	3442.67	1600	3333.33		103	0 - 204			
Benzo(a)anthracene	3733.33	330	3333.33		112	59 - 120			
Benzo(a)pyrene	3657.00	330	3333.33		110	60 - 132			
Benzo(b)fluoranthene	3496.33	330	3333.33		105	59 - 128			
Benzo(g,h,i)perylene	3362.00	330	3333.33		101	56 - 122			
Benzo(k)fluoranthene	3741.67	330	3333.33		112	53 - 130			
Benzoic acid	1417.67	1600	3333.33		42.5	11 - 132			J
Benzyl alcohol	3405.33	660	3333.33		102	64 - 120			
bis(2-chloroethoxy)methane	2489.00	330	3333.33		74.7	55 - 101			
bis(2-Chloroethyl)ether	2474.67	330	3333.33		74.2	55 - 100			
bis(2-chloroisopropyl)ether	2481.67	330	3333.33		74.5	30 - 126			
bis(2-ethylhexyl)phthalate	3894.67	330	3333.33		117	62 - 130			
Butylbenzylphthalate	3587.00	330	3333.33		108	61 - 136			
Chrysene	3292.67	330	3333.33		98.8	54 - 122			
Di-n-butylphthalate	4461.33	330	3333.33		134	68 - 126			L4
Di-n-octylphthalate	4454.00	330	3333.33		134	57 - 145			
Dibenz(a,h)anthracene	4327.67	330	3333.33		130	52 - 136			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

LCS (B6J0735-BS1) - Continued

Prepared: 10/26/2016 Analyzed: 10/27/2016

Dibenzofuran	3201.00	330	3333.33		96.0	66 - 118			
Diethyl phthalate	4093.67	330	3333.33		123	66 - 127			
Dimethyl phthalate	3594.33	330	3333.33		108	65 - 121			
Fluoranthene	3576.00	330	3333.33		107	60 - 120			
Fluorene	3117.00	330	3333.33		93.5	55 - 119			
Hexachlorobenzene	3353.33	330	3333.33		101	64 - 119			
Hexachlorobutadiene	2218.67	660	3333.33		66.6	48 - 101			
Hexachlorocyclopentadiene	2622.67	660	3333.33		78.7	46 - 123			
Hexachloroethane	2551.67	330	3333.33		76.6	57 - 104			
Indeno(1,2,3-cd)pyrene	4165.00	330	3333.33		125	60 - 140			
Isophorone	2619.67	330	3333.33		78.6	49 - 118			
N-Nitroso-di-n propylamine	3021.00	330	3333.33		90.6	56 - 118			
N-Nitrosodiphenylamine	4221.33	330	3333.33		127	66 - 126			L4
Naphthalene	2508.00	330	3333.33		75.2	51 - 103			
Nitrobenzene	2923.00	330	3333.33		87.7	62 - 111			
Pentachlorophenol	2296.67	1600	3333.33		68.9	54 - 144			
Phenanthrene	3518.00	330	3333.33		106	58 - 120			
Phenol	2508.67	330	3333.33		75.3	46 - 139			
Pyrene	3626.67	330	3333.33		109	59 - 122			
Pyridine	2060.33	1600	3333.33		61.8	26 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2162		3333.33		64.9	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2719		3333.33		81.6	12 - 129			
Surrogate: 2-Chlorophenol-d4	2313		3333.33		69.4	34 - 102			
Surrogate: 2-Fluorobiphenyl	2618		3333.33		78.5	25 - 116			
Surrogate: 2-Fluorophenol	2050		3333.33		61.5	32 - 101			
Surrogate: 4-Terphenyl-d14	3125		3333.33		93.8	34 - 125			
Surrogate: Nitrobenzene-d5	2469		3333.33		74.1	30 - 115			
Surrogate: Phenol-d5	2327		3333.33		69.8	34 - 104			

Duplicate (B6J0735-DUP1)

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

1,2,4-Trichlorobenzene	ND	330	ND	NR		20
1,2-Dichlorobenzene	ND	330	ND	NR		20
1,3-Dichlorobenzene	ND	330	ND	NR		20
1,4-Dichlorobenzene	ND	330	ND	NR		20
2,4,5-Trichlorophenol	ND	330	ND	NR		20
2,4,6-Trichlorophenol	ND	330	ND	NR		20
2,4-Dichlorophenol	ND	1600	ND	NR		20
2,4-Dimethylphenol	ND	330	ND	NR		20
2,4-Dinitrophenol	ND	1600	ND	NR		20
2,4-Dinitrotoluene	ND	330	ND	NR		20
2,6-Dinitrotoluene	ND	330	ND	NR		20



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

Duplicate (B6J0735-DUP1) - Continued

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

2-Chloronaphthalene	ND	330		ND	NR			20	
2-Chlorophenol	ND	330		ND	NR			20	
2-Methylnaphthalene	ND	330		ND	NR			20	
2-Methylphenol	ND	330		ND	NR			20	
2-Nitroaniline	ND	1600		ND	NR			20	
2-Nitrophenol	ND	330		ND	NR			20	
3,3'-Dichlorobenzidine	ND	660		ND	NR			20	
3-Nitroaniline	ND	1600		ND	NR			20	
4,6-Dinitro-2-methylphenol	ND	1600		ND	NR			20	
4-Bromophenyl-phenylether	ND	330		ND	NR			20	
4-Chloro-3-methylphenol	ND	660		ND	NR			20	
4-Chloroaniline	ND	660		ND	NR			20	
4-Chlorophenyl-phenylether	ND	330		ND	NR			20	
4-Methylphenol	ND	330		ND	NR			20	
4-Nitroaniline	ND	1600		ND	NR			20	
4-Nitrophenol	ND	330		ND	NR			20	
Acenaphthene	ND	330		ND	NR			20	
Acenaphthylene	ND	330		ND	NR			20	
Anthracene	ND	330		ND	NR			20	
Benzidine (M)	ND	1600		ND	NR			20	
Benzo(a)anthracene	ND	330		ND	NR			20	
Benzo(a)pyrene	ND	330		ND	NR			20	
Benzo(b)fluoranthene	ND	330		ND	NR			20	
Benzo(g,h,i)perylene	ND	330		ND	NR			20	
Benzo(k)fluoranthene	ND	330		ND	NR			20	
Benzoic acid	ND	1600		ND	NR			20	
Benzyl alcohol	ND	660		ND	NR			20	
bis(2-chloroethoxy)methane	ND	330		ND	NR			20	
bis(2-Chloroethyl)ether	ND	330		ND	NR			20	
bis(2-chloroisopropyl)ether	ND	330		ND	NR			20	
bis(2-ethylhexyl)phthalate	ND	330		ND	NR			20	
Butylbenzylphthalate	ND	330		ND	NR			20	
Chrysene	ND	330		ND	NR			20	
Di-n-butylphthalate	ND	330		ND	NR			20	
Di-n-octylphthalate	ND	330		ND	NR			20	
Dibenz(a,h)anthracene	ND	330		ND	NR			20	
Dibenzofuran	ND	330		ND	NR			20	
Diethyl phthalate	ND	330		ND	NR			20	
Dimethyl phthalate	ND	330		ND	NR			20	
Fluoranthene	ND	330		ND	NR			20	
Fluorene	ND	330		ND	NR			20	
Hexachlorobenzene	ND	330		ND	NR			20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

Duplicate (B6J0735-DUP1) - Continued

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

Hexachlorobutadiene	ND	660		ND	NR			20	
Hexachlorocyclopentadiene	ND	660		ND	NR			20	
Hexachloroethane	ND	330		ND	NR			20	
Indeno(1,2,3-cd)pyrene	ND	330		ND	NR			20	
Isophorone	ND	330		ND	NR			20	
N-Nitroso-di-n propylamine	ND	330		ND	NR			20	
N-Nitrosodiphenylamine	ND	330		ND	NR			20	
Naphthalene	ND	330		ND	NR			20	
Nitrobenzene	ND	330		ND	NR			20	
Pentachlorophenol	ND	1600		ND	NR			20	
Phenanthrene	ND	330		ND	NR			20	
Phenol	206.667	330		303.000	NR		37.8	20	R, J
Pyrene	ND	330		ND	NR			20	
Pyridine	ND	1600		ND	NR			20	

Surrogate: 1,2-Dichlorobenzene-d4	2535		3333.33		76.1	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2930		3333.33		87.9	12 - 129			
Surrogate: 2-Chlorophenol-d4	2775		3333.33		83.3	34 - 102			
Surrogate: 2-Fluorobiphenyl	2877		3333.33		86.3	25 - 116			
Surrogate: 2-Fluorophenol	2489		3333.33		74.7	32 - 101			
Surrogate: 4-Terphenyl-d14	3297		3333.33		98.9	34 - 125			
Surrogate: Nitrobenzene-d5	2795		3333.33		83.9	30 - 115			
Surrogate: Phenol-d5	2677		3333.33		80.3	34 - 104			

Matrix Spike (B6J0735-MS1)

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

1,2,4-Trichlorobenzene	2852.33	330	3333.33	ND	85.6	53 - 106			
1,2-Dichlorobenzene	3120.00	330	3333.33	ND	93.6	52 - 99			
1,3-Dichlorobenzene	2892.67	330	3333.33	ND	86.8	52 - 98			
1,4-Dichlorobenzene	2876.33	330	3333.33	ND	86.3	48 - 96			
2,4,5-Trichlorophenol	3252.33	330	3333.33	ND	97.6	51 - 138			
2,4,6-Trichlorophenol	3121.00	330	3333.33	ND	93.6	46 - 162			
2,4-Dichlorophenol	2976.67	1600	3333.33	ND	89.3	49 - 141			
2,4-Dimethylphenol	2781.00	330	3333.33	ND	83.4	39 - 138			
2,4-Dinitrophenol	4491.33	1600	3333.33	ND	135	4 - 170			
2,4-Dinitrotoluene	3963.67	330	3333.33	ND	119	57 - 132			
2,6-Dinitrotoluene	3794.67	330	3333.33	ND	114	45 - 146			
2-Chloronaphthalene	3417.67	330	3333.33	ND	103	59 - 115			
2-Chlorophenol	2683.00	330	3333.33	ND	80.5	46 - 126			
2-Methylnaphthalene	3345.00	330	3333.33	ND	100	58 - 116			
2-Methylphenol	2910.00	330	3333.33	ND	87.3	50 - 112			
2-Nitroaniline	3945.33	1600	3333.33	ND	118	44 - 156			
2-Nitrophenol	2941.00	330	3333.33	ND	88.2	39 - 153			



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Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

Matrix Spike (B6J0735-MS1) - Continued

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

3,3'-Dichlorobenzidine	4167.33	660	3333.33	ND	125	24 - 165			
3-Nitroaniline	3484.67	1600	3333.33	ND	105	47 - 135			
4,6-Dinitro-2-methylphenol	4380.33	1600	3333.33	ND	131	17 - 199			
4-Bromophenyl-phenylether	3243.33	330	3333.33	ND	97.3	57 - 119			
4-Chloro-3-methylphenol	3127.33	660	3333.33	ND	93.8	47 - 157			
4-Chloroaniline	3344.33	660	3333.33	ND	100	42 - 120			
4-Chlorophenyl-phenylether	3152.67	330	3333.33	ND	94.6	56 - 116			
4-Methylphenol	3379.00	330	3333.33	ND	101	52 - 119			
4-Nitroaniline	3965.33	1600	3333.33	ND	119	41 - 153			
4-Nitrophenol	4152.33	330	3333.33	ND	125	31 - 186			
Acenaphthene	3097.00	330	3333.33	ND	92.9	46 - 119			
Acenaphthylene	3301.33	330	3333.33	ND	99.0	51 - 114			
Anthracene	3476.33	330	3333.33	ND	104	55 - 126			
Benzidine (M)	ND	1600	3333.33	ND	NR	0 - 179			
Benzo(a)anthracene	3672.00	330	3333.33	ND	110	52 - 120			
Benzo(a)pyrene	3763.33	330	3333.33	ND	113	52 - 129			
Benzo(b)fluoranthene	3511.67	330	3333.33	ND	105	49 - 128			
Benzo(g,h,i)perylene	3405.00	330	3333.33	ND	102	45 - 123			
Benzo(k)fluoranthene	3654.67	330	3333.33	ND	110	44 - 127			
Benzoic acid	3072.67	1600	3333.33	ND	92.2	0 - 159			
Benzyl alcohol	3985.33	660	3333.33	ND	120	53 - 124			
bis(2-chloroethoxy)methane	2859.67	330	3333.33	ND	85.8	47 - 105			
bis(2-Chloroethyl)ether	2940.00	330	3333.33	ND	88.2	49 - 101			
bis(2-chloroisopropyl)ether	2892.33	330	3333.33	ND	86.8	30 - 122			
bis(2-ethylhexyl)phthalate	3964.67	330	3333.33	ND	119	37 - 153			
Butylbenzylphthalate	3612.33	330	3333.33	ND	108	49 - 151			
Chrysene	3240.33	330	3333.33	ND	97.2	50 - 119			
Di-n-butylphthalate	4422.00	330	3333.33	ND	133	55 - 138			
Di-n-octylphthalate	4517.67	330	3333.33	ND	136	46 - 153			
Dibenz(a,h)anthracene	4471.33	330	3333.33	ND	134	42 - 139			
Dibenzofuran	3438.67	330	3333.33	ND	103	56 - 125			
Diethyl phthalate	4006.00	330	3333.33	ND	120	60 - 126			
Dimethyl phthalate	3595.33	330	3333.33	ND	108	58 - 123			
Fluoranthene	3506.00	330	3333.33	ND	105	53 - 121			
Fluorene	3268.00	330	3333.33	ND	98.0	49 - 120			
Hexachlorobenzene	3329.67	330	3333.33	ND	99.9	60 - 119			
Hexachlorobutadiene	2676.67	660	3333.33	ND	80.3	48 - 98			
Hexachlorocyclopentadiene	3220.67	660	3333.33	ND	96.6	33 - 123			
Hexachloroethane	3058.33	330	3333.33	ND	91.8	52 - 103			
Indeno(1,2,3-cd)pyrene	4256.67	330	3333.33	ND	128	47 - 141			
Isophorone	2973.00	330	3333.33	ND	89.2	43 - 117			
N-Nitroso-di-n propylamine	3421.00	330	3333.33	ND	103	43 - 125			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

Matrix Spike (B6J0735-MS1) - Continued

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

N-Nitrosodiphenylamine	4190.00	330	3333.33	ND	126	49 - 142			
Naphthalene	2952.00	330	3333.33	ND	88.6	41 - 111			
Nitrobenzene	3401.00	330	3333.33	ND	102	55 - 114			
Pentachlorophenol	3871.00	1600	3333.33	ND	116	40 - 163			
Phenanthrene	3524.00	330	3333.33	ND	106	49 - 125			
Phenol	3235.67	330	3333.33	303.000	88.0	43 - 134			
Pyrene	3571.00	330	3333.33	ND	107	52 - 124			
Pyridine	2613.00	1600	3333.33	ND	78.4	31 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2571		3333.33		77.1	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2916		3333.33		87.5	12 - 129			
Surrogate: 2-Chlorophenol-d4	2786		3333.33		83.6	34 - 102			
Surrogate: 2-Fluorobiphenyl	3079		3333.33		92.4	25 - 116			
Surrogate: 2-Fluorophenol	2508		3333.33		75.2	32 - 101			
Surrogate: 4-Terphenyl-d14	3023		3333.33		90.7	34 - 125			
Surrogate: Nitrobenzene-d5	2933		3333.33		88.0	30 - 115			
Surrogate: Phenol-d5	2776		3333.33		83.3	34 - 104			

Matrix Spike Dup (B6J0735-MSD1)

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

1,2,4-Trichlorobenzene	2678.00	330	3333.33	ND	80.3	53 - 106	6.30	20	
1,2-Dichlorobenzene	2952.33	330	3333.33	ND	88.6	52 - 99	5.52	20	
1,3-Dichlorobenzene	2649.67	330	3333.33	ND	79.5	52 - 98	8.77	20	
1,4-Dichlorobenzene	2656.33	330	3333.33	ND	79.7	48 - 96	7.95	20	
2,4,5-Trichlorophenol	3212.33	330	3333.33	ND	96.4	51 - 138	1.24	20	
2,4,6-Trichlorophenol	3048.33	330	3333.33	ND	91.4	46 - 162	2.36	20	
2,4-Dichlorophenol	2782.33	1600	3333.33	ND	83.5	49 - 141	6.75	20	
2,4-Dimethylphenol	2583.33	330	3333.33	ND	77.5	39 - 138	7.37	20	
2,4-Dinitrophenol	4393.00	1600	3333.33	ND	132	4 - 170	2.21	20	
2,4-Dinitrotoluene	3824.67	330	3333.33	ND	115	57 - 132	3.57	20	
2,6-Dinitrotoluene	3706.67	330	3333.33	ND	111	45 - 146	2.35	20	
2-Chloronaphthalene	3289.67	330	3333.33	ND	98.7	59 - 115	3.82	20	
2-Chlorophenol	2508.33	330	3333.33	ND	75.2	46 - 126	6.73	20	
2-Methylnaphthalene	3117.67	330	3333.33	ND	93.5	58 - 116	7.04	20	
2-Methylphenol	2721.00	330	3333.33	ND	81.6	50 - 112	6.71	20	
2-Nitroaniline	3881.00	1600	3333.33	ND	116	44 - 156	1.64	20	
2-Nitrophenol	2780.67	330	3333.33	ND	83.4	39 - 153	5.60	20	
3,3'-Dichlorobenzidine	3926.67	660	3333.33	ND	118	24 - 165	5.95	20	
3-Nitroaniline	3421.00	1600	3333.33	ND	103	47 - 135	1.84	20	
4,6-Dinitro-2-methylphenol	4240.67	1600	3333.33	ND	127	17 - 199	3.24	20	
4-Bromophenyl-phenylether	3155.33	330	3333.33	ND	94.7	57 - 119	2.75	20	
4-Chloro-3-methylphenol	3003.67	660	3333.33	ND	90.1	47 - 157	4.03	20	
4-Chloroaniline	3146.33	660	3333.33	ND	94.4	42 - 120	6.10	20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

Matrix Spike Dup (B6J0735-MSD1) - Continued

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

4-Chlorophenyl-phenylether	3093.33	330	3333.33	ND	92.8	56 - 116	1.90	20	
4-Methylphenol	3183.33	330	3333.33	ND	95.5	52 - 119	5.96	20	
4-Nitroaniline	3866.67	1600	3333.33	ND	116	41 - 153	2.52	20	
4-Nitrophenol	3977.33	330	3333.33	ND	119	31 - 186	4.31	20	
Acenaphthene	3026.33	330	3333.33	ND	90.8	46 - 119	2.31	20	
Acenaphthylene	3190.00	330	3333.33	ND	95.7	51 - 114	3.43	20	
Anthracene	3330.67	330	3333.33	ND	99.9	55 - 126	4.28	20	
Benzidine (M)	ND	1600	3333.33	ND	NR	0 - 179		20	
Benzo(a)anthracene	3496.67	330	3333.33	ND	105	52 - 120	4.89	20	
Benzo(a)pyrene	3583.67	330	3333.33	ND	108	52 - 129	4.89	20	
Benzo(b)fluoranthene	3421.33	330	3333.33	ND	103	49 - 128	2.61	20	
Benzo(g,h,i)perylene	3291.67	330	3333.33	ND	98.8	45 - 123	3.38	20	
Benzo(k)fluoranthene	3467.67	330	3333.33	ND	104	44 - 127	5.25	20	
Benzoic acid	2525.00	1600	3333.33	ND	75.8	0 - 159	19.6	20	
Benzyl alcohol	3785.33	660	3333.33	ND	114	53 - 124	5.15	20	
bis(2-chloroethoxy)methane	2765.67	330	3333.33	ND	83.0	47 - 105	3.34	20	
bis(2-Chloroethyl)ether	2845.67	330	3333.33	ND	85.4	49 - 101	3.26	20	
bis(2-chloroisopropyl)ether	2723.67	330	3333.33	ND	81.7	30 - 122	6.01	20	
bis(2-ethylhexyl)phthalate	3740.67	330	3333.33	ND	112	37 - 153	5.81	20	
Butylbenzylphthalate	3407.67	330	3333.33	ND	102	49 - 151	5.83	20	
Chrysene	3112.00	330	3333.33	ND	93.4	50 - 119	4.04	20	
Di-n-butylphthalate	4157.33	330	3333.33	ND	125	55 - 138	6.17	20	
Di-n-octylphthalate	4312.33	330	3333.33	ND	129	46 - 153	4.65	20	
Dibenz(a,h)anthracene	4168.67	330	3333.33	ND	125	42 - 139	7.01	20	
Dibenzofuran	3340.00	330	3333.33	ND	100	56 - 125	2.91	20	
Diethyl phthalate	3958.67	330	3333.33	ND	119	60 - 126	1.19	20	
Dimethyl phthalate	3532.33	330	3333.33	ND	106	58 - 123	1.77	20	
Fluoranthene	3343.33	330	3333.33	ND	100	53 - 121	4.75	20	
Fluorene	3224.00	330	3333.33	ND	96.7	49 - 120	1.36	20	
Hexachlorobenzene	3237.00	330	3333.33	ND	97.1	60 - 119	2.82	20	
Hexachlorobutadiene	2524.67	660	3333.33	ND	75.7	48 - 98	5.84	20	
Hexachlorocyclopentadiene	3090.67	660	3333.33	ND	92.7	33 - 123	4.12	20	
Hexachloroethane	2909.67	330	3333.33	ND	87.3	52 - 103	4.98	20	
Indeno(1,2,3-cd)pyrene	4045.00	330	3333.33	ND	121	47 - 141	5.10	20	
Isophorone	2846.00	330	3333.33	ND	85.4	43 - 117	4.37	20	
N-Nitroso-di-n propylamine	3265.00	330	3333.33	ND	98.0	43 - 125	4.67	20	
N-Nitrosodiphenylamine	4023.33	330	3333.33	ND	121	49 - 142	4.06	20	
Naphthalene	2766.00	330	3333.33	ND	83.0	41 - 111	6.51	20	
Nitrobenzene	3204.67	330	3333.33	ND	96.1	55 - 114	5.94	20	
Pentachlorophenol	3633.00	1600	3333.33	ND	109	40 - 163	6.34	20	
Phenanthrene	3351.00	330	3333.33	ND	101	49 - 125	5.03	20	
Phenol	2930.33	330	3333.33	303.000	78.8	43 - 134	9.90	20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0735 - MSSEMI_S (continued)

Matrix Spike Dup (B6J0735-MSD1) - Continued

Source: 1603730-03

Prepared: 10/26/2016 Analyzed: 10/27/2016

Pyrene	3398.00	330	3333.33	ND	102	52 - 124	4.96	20	
Pyridine	2307.33	1600	3333.33	ND	69.2	31 - 90	12.4	20	
Surrogate: 1,2-Dichlorobenzene-d4	2368		3333.33		71.0	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2790		3333.33		83.7	12 - 129			
Surrogate: 2-Chlorophenol-d4	2599		3333.33		78.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2983		3333.33		89.5	25 - 116			
Surrogate: 2-Fluorophenol	2314		3333.33		69.4	32 - 101			
Surrogate: 4-Terphenyl-d14	2847		3333.33		85.4	34 - 125			
Surrogate: Nitrobenzene-d5	2765		3333.33		82.9	30 - 115			
Surrogate: Phenol-d5	2573		3333.33		77.2	34 - 104			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S

Blank (B6K0118-BLK1)

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	ND	330			NR
1,2-Dichlorobenzene	ND	330			NR
1,3-Dichlorobenzene	ND	330			NR
1,4-Dichlorobenzene	ND	330			NR
2,4,5-Trichlorophenol	ND	330			NR
2,4,6-Trichlorophenol	ND	330			NR
2,4-Dichlorophenol	ND	1600			NR
2,4-Dimethylphenol	ND	330			NR
2,4-Dinitrophenol	ND	1600			NR
2,4-Dinitrotoluene	ND	330			NR
2,6-Dinitrotoluene	ND	330			NR
2-Chloronaphthalene	ND	330			NR
2-Chlorophenol	ND	330			NR
2-Methylnaphthalene	ND	330			NR
2-Methylphenol	ND	330			NR
2-Nitroaniline	ND	1600			NR
2-Nitrophenol	ND	330			NR
3,3'-Dichlorobenzidine	ND	660			NR
3-Nitroaniline	ND	1600			NR
4,6-Dinitro-2-methylphenol	ND	1600			NR
4-Bromophenyl-phenylether	ND	330			NR
4-Chloro-3-methylphenol	ND	660			NR
4-Chloroaniline	ND	660			NR
4-Chlorophenyl-phenylether	ND	330			NR
4-Methylphenol	ND	330			NR
4-Nitroaniline	ND	1600			NR
4-Nitrophenol	ND	330			NR
Acenaphthene	ND	330			NR
Acenaphthylene	ND	330			NR
Anthracene	ND	330			NR
Benzidine (M)	ND	1600			NR
Benzo(a)anthracene	ND	330			NR
Benzo(a)pyrene	ND	330			NR
Benzo(b)fluoranthene	ND	330			NR
Benzo(g,h,i)perylene	ND	330			NR
Benzo(k)fluoranthene	ND	330			NR
Benzoic acid	ND	1600			NR
Benzyl alcohol	ND	660			NR
bis(2-chloroethoxy)methane	ND	330			NR
bis(2-Chloroethyl)ether	ND	330			NR
bis(2-chloroisopropyl)ether	ND	330			NR



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Blank (B6K0118-BLK1) - Continued

Prepared: 11/2/2016 Analyzed: 11/4/2016

bis(2-ethylhexyl)phthalate	ND	330			NR				
Butylbenzylphthalate	ND	330			NR				
Chrysene	ND	330			NR				
Di-n-butylphthalate	ND	330			NR				
Di-n-octylphthalate	ND	330			NR				
Dibenz(a,h)anthracene	ND	330			NR				
Dibenzofuran	ND	330			NR				
Diethyl phthalate	ND	330			NR				
Dimethyl phthalate	ND	330			NR				
Fluoranthene	ND	330			NR				
Fluorene	ND	330			NR				
Hexachlorobenzene	ND	330			NR				
Hexachlorobutadiene	ND	660			NR				
Hexachlorocyclopentadiene	ND	660			NR				
Hexachloroethane	ND	330			NR				
Indeno(1,2,3-cd)pyrene	ND	330			NR				
Isophorone	ND	330			NR				
N-Nitroso-di-n propylamine	ND	330			NR				
N-Nitrosodiphenylamine	ND	330			NR				
Naphthalene	ND	330			NR				
Nitrobenzene	ND	330			NR				
Pentachlorophenol	ND	1600			NR				
Phenanthrene	ND	330			NR				
Phenol	ND	330			NR				
Pyrene	ND	330			NR				
Pyridine	ND	1600			NR				

Surrogate: 1,2-Dichlorobenzene-d4	1731		3333.33		51.9	22 - 107			
Surrogate: 2,4,6-Tribromophenol	1917		3333.33		57.5	12 - 129			
Surrogate: 2-Chlorophenol-d4	1672		3333.33		50.2	34 - 102			
Surrogate: 2-Fluorobiphenyl	1750		3333.33		52.5	25 - 116			
Surrogate: 2-Fluorophenol	1565		3333.33		46.9	32 - 101			
Surrogate: 4-Terphenyl-d14	2868		3333.33		86.0	34 - 125			
Surrogate: Nitrobenzene-d5	1709		3333.33		51.3	30 - 115			
Surrogate: Phenol-d5	1685		3333.33		50.6	34 - 104			

LCS (B6K0118-BS1)

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3312.00	330	3333.33		99.4	58 - 105			
1,2-Dichlorobenzene	3001.33	330	3333.33		90.0	58 - 99			
1,3-Dichlorobenzene	2938.00	330	3333.33		88.1	57 - 100			
1,4-Dichlorobenzene	2942.00	330	3333.33		88.3	57 - 93			
2,4,5-Trichlorophenol	2942.00	330	3333.33		88.3	63 - 128			



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

LCS (B6K0118-BS1) - Continued

Prepared: 11/2/2016 Analyzed: 11/4/2016

2,4,6-Trichlorophenol	2680.67	330	3333.33		80.4	51 - 156			
2,4-Dichlorophenol	2593.00	1600	3333.33		77.8	56 - 140			
2,4-Dimethylphenol	2145.33	330	3333.33		64.4	47 - 134			
2,4-Dinitrophenol	2771.00	1600	3333.33		83.1	49 - 159			
2,4-Dinitrotoluene	3722.33	330	3333.33		112	66 - 132			
2,6-Dinitrotoluene	3651.33	330	3333.33		110	65 - 130			
2-Chloronaphthalene	3404.67	330	3333.33		102	65 - 112			
2-Chlorophenol	2184.00	330	3333.33		65.5	47 - 132			
2-Methylnaphthalene	3372.67	330	3333.33		101	62 - 118			
2-Methylphenol	2352.33	330	3333.33		70.6	54 - 113			
2-Nitroaniline	1839.00	1600	3333.33		55.2	53 - 152			
2-Nitrophenol	2500.00	330	3333.33		75.0	46 - 149			
3,3'-Dichlorobenzidine	2798.33	660	3333.33		84.0	45 - 155			
3-Nitroaniline	1973.00	1600	3333.33		59.2	58 - 126			
4,6-Dinitro-2-methylphenol	2975.33	1600	3333.33		89.3	55 - 175			
4-Bromophenyl-phenylether	3105.33	330	3333.33		93.2	62 - 118			
4-Chloro-3-methylphenol	2827.00	660	3333.33		84.8	61 - 145			
4-Chloroaniline	1692.33	660	3333.33		50.8	57 - 115			L4
4-Chlorophenyl-phenylether	2882.67	330	3333.33		86.5	60 - 117			
4-Methylphenol	2654.67	330	3333.33		79.6	58 - 120			
4-Nitroaniline	2008.00	1600	3333.33		60.2	62 - 132			L4
4-Nitrophenol	2742.67	330	3333.33		82.3	46 - 181			
Acenaphthene	2606.67	330	3333.33		78.2	53 - 120			
Acenaphthylene	2616.67	330	3333.33		78.5	57 - 112			
Anthracene	2831.67	330	3333.33		85.0	63 - 122			
Benzidine (M)	3124.33	1600	3333.33		93.7	0 - 204			
Benzo(a)anthracene	2857.33	330	3333.33		85.7	59 - 120			
Benzo(a)pyrene	2730.67	330	3333.33		81.9	60 - 132			
Benzo(b)fluoranthene	2782.33	330	3333.33		83.5	59 - 128			
Benzo(g,h,i)perylene	2805.67	330	3333.33		84.2	56 - 122			
Benzo(k)fluoranthene	2994.67	330	3333.33		89.8	53 - 130			
Benzoic acid	1491.33	1600	3333.33		44.7	11 - 132			J
Benzyl alcohol	3298.33	660	3333.33		99.0	64 - 120			
bis(2-chloroethoxy)methane	2461.33	330	3333.33		73.8	55 - 101			
bis(2-Chloroethyl)ether	2408.67	330	3333.33		72.3	55 - 100			
bis(2-chloroisopropyl)ether	2243.00	330	3333.33		67.3	30 - 126			
bis(2-ethylhexyl)phthalate	2607.33	330	3333.33		78.2	62 - 130			
Butylbenzylphthalate	2792.67	330	3333.33		83.8	61 - 136			
Chrysene	2954.67	330	3333.33		88.6	54 - 122			
Di-n-butylphthalate	3061.00	330	3333.33		91.8	68 - 126			
Di-n-octylphthalate	2580.33	330	3333.33		77.4	57 - 145			
Dibenz(a,h)anthracene	2571.33	330	3333.33		77.1	52 - 136			



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Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

LCS (B6K0118-BS1) - Continued

Prepared: 11/2/2016 Analyzed: 11/4/2016

Dibenzofuran	3552.00	330	3333.33	107	66 - 118			
Diethyl phthalate	3016.33	330	3333.33	90.5	66 - 127			
Dimethyl phthalate	2959.00	330	3333.33	88.8	65 - 121			
Fluoranthene	2925.67	330	3333.33	87.8	60 - 120			
Fluorene	2743.33	330	3333.33	82.3	55 - 119			
Hexachlorobenzene	3986.00	330	3333.33	120	64 - 119			L4
Hexachlorobutadiene	2843.33	660	3333.33	85.3	48 - 101			
Hexachlorocyclopentadiene	3385.67	660	3333.33	102	46 - 123			
Hexachloroethane	2841.00	330	3333.33	85.2	57 - 104			
Indeno(1,2,3-cd)pyrene	2603.33	330	3333.33	78.1	60 - 140			
Isophorone	2596.33	330	3333.33	77.9	49 - 118			
N-Nitroso-di-n propylamine	2502.33	330	3333.33	75.1	56 - 118			
N-Nitrosodiphenylamine	3115.67	330	3333.33	93.5	66 - 126			
Naphthalene	2473.67	330	3333.33	74.2	51 - 103			
Nitrobenzene	3146.67	330	3333.33	94.4	62 - 111			
Pentachlorophenol	2505.33	1600	3333.33	75.2	54 - 144			
Phenanthrene	2865.33	330	3333.33	86.0	58 - 120			
Phenol	2288.00	330	3333.33	68.6	46 - 139			
Pyrene	2993.33	330	3333.33	89.8	59 - 122			
Pyridine	2093.00	1600	3333.33	62.8	26 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2237		3333.33	67.1	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2715		3333.33	81.5	12 - 129			
Surrogate: 2-Chlorophenol-d4	2167		3333.33	65.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2423		3333.33	72.7	25 - 116			
Surrogate: 2-Fluorophenol	1999		3333.33	60.0	32 - 101			
Surrogate: 4-Terphenyl-d14	2718		3333.33	81.5	34 - 125			
Surrogate: Nitrobenzene-d5	2243		3333.33	67.3	30 - 115			
Surrogate: Phenol-d5	2176		3333.33	65.3	34 - 104			

Duplicate (B6K0118-DUP1)

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	ND	330	ND	NR	20
1,2-Dichlorobenzene	ND	330	ND	NR	20
1,3-Dichlorobenzene	ND	330	ND	NR	20
1,4-Dichlorobenzene	ND	330	ND	NR	20
2,4,5-Trichlorophenol	ND	330	ND	NR	20
2,4,6-Trichlorophenol	ND	330	ND	NR	20
2,4-Dichlorophenol	ND	1600	ND	NR	20
2,4-Dimethylphenol	ND	330	ND	NR	20
2,4-Dinitrophenol	ND	1600	ND	NR	20
2,4-Dinitrotoluene	ND	330	ND	NR	20
2,6-Dinitrotoluene	ND	330	ND	NR	20



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

2-Chloronaphthalene	ND	330		ND	NR			20	
2-Chlorophenol	ND	330		ND	NR			20	
2-Methylnaphthalene	ND	330		ND	NR			20	
2-Methylphenol	ND	330		ND	NR			20	
2-Nitroaniline	ND	1600		ND	NR			20	
2-Nitrophenol	ND	330		ND	NR			20	
3,3'-Dichlorobenzidine	ND	660		ND	NR			20	
3-Nitroaniline	ND	1600		ND	NR			20	
4,6-Dinitro-2-methylphenol	ND	1600		ND	NR			20	
4-Bromophenyl-phenylether	ND	330		ND	NR			20	
4-Chloro-3-methylphenol	ND	660		ND	NR			20	
4-Chloroaniline	ND	660		ND	NR			20	
4-Chlorophenyl-phenylether	ND	330		ND	NR			20	
4-Methylphenol	ND	330		ND	NR			20	
4-Nitroaniline	ND	1600		ND	NR			20	
4-Nitrophenol	ND	330		ND	NR			20	
Acenaphthene	ND	330		ND	NR			20	
Acenaphthylene	ND	330		ND	NR			20	
Anthracene	ND	330		ND	NR			20	
Benzidine (M)	ND	1600		ND	NR			20	
Benzo(a)anthracene	ND	330		ND	NR			20	
Benzo(a)pyrene	ND	330		ND	NR			20	
Benzo(b)fluoranthene	ND	330		ND	NR			20	
Benzo(g,h,i)perylene	ND	330		ND	NR			20	
Benzo(k)fluoranthene	ND	330		ND	NR			20	
Benzoic acid	ND	1600		ND	NR			20	
Benzyl alcohol	ND	660		ND	NR			20	
bis(2-chloroethoxy)methane	ND	330		ND	NR			20	
bis(2-Chloroethyl)ether	ND	330		ND	NR			20	
bis(2-chloroisopropyl)ether	ND	330		ND	NR			20	
bis(2-ethylhexyl)phthalate	ND	330		ND	NR			20	
Butylbenzylphthalate	ND	330		ND	NR			20	
Chrysene	ND	330		ND	NR			20	
Di-n-butylphthalate	ND	330		ND	NR			20	
Di-n-octylphthalate	ND	330		ND	NR			20	
Dibenz(a,h)anthracene	ND	330		ND	NR			20	
Dibenzofuran	ND	330		ND	NR			20	
Diethyl phthalate	ND	330		ND	NR			20	
Dimethyl phthalate	ND	330		ND	NR			20	
Fluoranthene	ND	330		ND	NR			20	
Fluorene	ND	330		ND	NR			20	
Hexachlorobenzene	ND	330		ND	NR			20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

Hexachlorobutadiene	ND	660		ND	NR			20	
Hexachlorocyclopentadiene	ND	660		ND	NR			20	
Hexachloroethane	ND	330		ND	NR			20	
Indeno(1,2,3-cd)pyrene	ND	330		ND	NR			20	
Isophorone	ND	330		ND	NR			20	
N-Nitroso-di-n propylamine	ND	330		ND	NR			20	
N-Nitrosodiphenylamine	ND	330		ND	NR			20	
Naphthalene	ND	330		ND	NR			20	
Nitrobenzene	ND	330		ND	NR			20	
Pentachlorophenol	ND	1600		ND	NR			20	
Phenanthrene	ND	330		ND	NR			20	
Phenol	ND	330		ND	NR			20	
Pyrene	ND	330		ND	NR			20	
Pyridine	ND	1600		ND	NR			20	

Surrogate: 1,2-Dichlorobenzene-d4	2499	3333.33	75.0	22 - 107
Surrogate: 2,4,6-Tribromophenol	2925	3333.33	87.8	12 - 129
Surrogate: 2-Chlorophenol-d4	2501	3333.33	75.0	34 - 102
Surrogate: 2-Fluorobiphenyl	2598	3333.33	77.9	25 - 116
Surrogate: 2-Fluorophenol	2297	3333.33	68.9	32 - 101
Surrogate: 4-Terphenyl-d14	3233	3333.33	97.0	34 - 125
Surrogate: Nitrobenzene-d5	2495	3333.33	74.9	30 - 115
Surrogate: Phenol-d5	2543	3333.33	76.3	34 - 104

Duplicate (B6K0118-DUP2)

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	ND	330	ND	NR	20
1,2-Dichlorobenzene	ND	330	ND	NR	20
1,3-Dichlorobenzene	ND	330	ND	NR	20
1,4-Dichlorobenzene	ND	330	ND	NR	20
2,4,5-Trichlorophenol	ND	330	ND	NR	20
2,4,6-Trichlorophenol	ND	330	ND	NR	20
2,4-Dichlorophenol	ND	1600	ND	NR	20
2,4-Dimethylphenol	ND	330	ND	NR	20
2,4-Dinitrophenol	ND	1600	ND	NR	20
2,4-Dinitrotoluene	ND	330	ND	NR	20
2,6-Dinitrotoluene	ND	330	ND	NR	20
2-Chloronaphthalene	ND	330	ND	NR	20
2-Chlorophenol	ND	330	ND	NR	20
2-Methylnaphthalene	ND	330	ND	NR	20
2-Methylphenol	ND	330	ND	NR	20
2-Nitroaniline	ND	1600	ND	NR	20
2-Nitrophenol	ND	330	ND	NR	20



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

3,3'-Dichlorobenzidine	ND	660		ND	NR			20	
3-Nitroaniline	ND	1600		ND	NR			20	
4,6-Dinitro-2-methyphenol	ND	1600		ND	NR			20	
4-Bromophenyl-phenylether	ND	330		ND	NR			20	
4-Chloro-3-methylphenol	ND	660		ND	NR			20	
4-Chloroaniline	ND	660		ND	NR			20	
4-Chlorophenyl-phenylether	ND	330		ND	NR			20	
4-Methylphenol	ND	330		ND	NR			20	
4-Nitroaniline	ND	1600		ND	NR			20	
4-Nitrophenol	ND	330		ND	NR			20	
Acenaphthene	ND	330		ND	NR			20	
Acenaphthylene	ND	330		ND	NR			20	
Anthracene	ND	330		ND	NR			20	
Benzdine (M)	ND	1600		ND	NR			20	
Benzo(a)anthracene	ND	330		ND	NR			20	
Benzo(a)pyrene	ND	330		ND	NR			20	
Benzo(b)fluoranthene	ND	330		ND	NR			20	
Benzo(g,h,i)perylene	ND	330		ND	NR			20	
Benzo(k)fluoranthene	ND	330		ND	NR			20	
Benzoic acid	ND	1600		ND	NR			20	
Benzyl alcohol	ND	660		ND	NR			20	
bis(2-chloroethoxy)methane	ND	330		ND	NR			20	
bis(2-Chloroethyl)ether	ND	330		ND	NR			20	
bis(2-chloroisopropyl)ether	ND	330		ND	NR			20	
bis(2-ethylhexyl)phthalate	ND	330		ND	NR			20	
Butylbenzylphthalate	ND	330		ND	NR			20	
Chrysene	ND	330		ND	NR			20	
Di-n-butylphthalate	ND	330		ND	NR			20	
Di-n-octylphthalate	ND	330		ND	NR			20	
Dibenz(a,h)anthracene	ND	330		ND	NR			20	
Dibenzofuran	ND	330		ND	NR			20	
Diethyl phthalate	ND	330		ND	NR			20	
Dimethyl phthalate	ND	330		ND	NR			20	
Fluoranthene	ND	330		ND	NR			20	
Fluorene	ND	330		ND	NR			20	
Hexachlorobenzene	ND	330		ND	NR			20	
Hexachlorobutadiene	ND	660		ND	NR			20	
Hexachlorocyclopentadiene	ND	660		ND	NR			20	
Hexachloroethane	ND	330		ND	NR			20	
Indeno(1,2,3-cd)pyrene	ND	330		ND	NR			20	
Isophorone	ND	330		ND	NR			20	
N-Nitroso-di-n propylamine	ND	330		ND	NR			20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Duplicate (B6K0118-DUP2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

N-Nitrosodiphenylamine	ND	330		ND	NR			20	
Naphthalene	ND	330		ND	NR			20	
Nitrobenzene	ND	330		ND	NR			20	
Pentachlorophenol	ND	1600		ND	NR			20	
Phenanthrene	ND	330		ND	NR			20	
Phenol	ND	330		ND	NR			20	
Pyrene	ND	330		ND	NR			20	
Pyridine	ND	1600		ND	NR			20	

Surrogate: 1,2-Dichlorobenzene-d4	2426		3333.33		72.8	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2846		3333.33		85.4	12 - 129			
Surrogate: 2-Chlorophenol-d4	2400		3333.33		72.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2547		3333.33		76.4	25 - 116			
Surrogate: 2-Fluorophenol	2190		3333.33		65.7	32 - 101			
Surrogate: 4-Terphenyl-d14	3131		3333.33		93.9	34 - 125			
Surrogate: Nitrobenzene-d5	2454		3333.33		73.6	30 - 115			
Surrogate: Phenol-d5	2389		3333.33		71.7	34 - 104			

Matrix Spike (B6K0118-MS1)

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3339.67	330	3333.33	ND	100	53 - 106			
1,2-Dichlorobenzene	3131.00	330	3333.33	ND	93.9	52 - 99			
1,3-Dichlorobenzene	3033.33	330	3333.33	ND	91.0	52 - 98			
1,4-Dichlorobenzene	3040.00	330	3333.33	ND	91.2	48 - 96			
2,4,5-Trichlorophenol	3111.00	330	3333.33	ND	93.3	51 - 138			
2,4,6-Trichlorophenol	2775.00	330	3333.33	ND	83.3	46 - 162			
2,4-Dichlorophenol	2774.67	1600	3333.33	ND	83.2	49 - 141			
2,4-Dimethylphenol	2314.33	330	3333.33	ND	69.4	39 - 138			
2,4-Dinitrophenol	2988.33	1600	3333.33	ND	89.6	4 - 170			
2,4-Dinitrotoluene	3871.33	330	3333.33	ND	116	57 - 132			
2,6-Dinitrotoluene	3761.33	330	3333.33	ND	113	45 - 146			
2-Chloronaphthalene	3528.00	330	3333.33	ND	106	59 - 115			
2-Chlorophenol	2307.67	330	3333.33	ND	69.2	46 - 126			
2-Methylnaphthalene	3533.67	330	3333.33	ND	106	58 - 116			
2-Methylphenol	2531.67	330	3333.33	ND	76.0	50 - 112			
2-Nitroaniline	1942.00	1600	3333.33	ND	58.3	44 - 156			
2-Nitrophenol	2668.67	330	3333.33	ND	80.1	39 - 153			
3,3'-Dichlorobenzidine	2873.67	660	3333.33	ND	86.2	24 - 165			
3-Nitroaniline	2063.00	1600	3333.33	ND	61.9	47 - 135			
4,6-Dinitro-2-methylphenol	3240.67	1600	3333.33	ND	97.2	17 - 199			
4-Bromophenyl-phenylether	3142.67	330	3333.33	ND	94.3	57 - 119			
4-Chloro-3-methylphenol	2959.00	660	3333.33	ND	88.8	47 - 157			
4-Chloroaniline	1733.33	660	3333.33	ND	52.0	42 - 120			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

4-Chlorophenyl-phenylether	2950.33	330	3333.33	ND	88.5	56 - 116			
4-Methylphenol	2880.67	330	3333.33	ND	86.4	52 - 119			
4-Nitroaniline	2122.33	1600	3333.33	ND	63.7	41 - 153			
4-Nitrophenol	3076.33	330	3333.33	ND	92.3	31 - 186			
Acenaphthene	2659.67	330	3333.33	ND	79.8	46 - 119			
Acenaphthylene	2688.00	330	3333.33	ND	80.6	51 - 114			
Anthracene	2930.00	330	3333.33	ND	87.9	55 - 126			
Benzidine (M)	2711.33	1600	3333.33	ND	81.3	0 - 179			
Benzo(a)anthracene	2947.67	330	3333.33	ND	88.4	52 - 120			
Benzo(a)pyrene	2772.33	330	3333.33	ND	83.2	52 - 129			
Benzo(b)fluoranthene	3021.00	330	3333.33	ND	90.6	49 - 128			
Benzo(g,h,i)perylene	2923.33	330	3333.33	ND	87.7	45 - 123			
Benzo(k)fluoranthene	2933.33	330	3333.33	ND	88.0	44 - 127			
Benzoic acid	2122.00	1600	3333.33	ND	63.7	0 - 159			
Benzyl alcohol	3561.67	660	3333.33	ND	107	53 - 124			
bis(2-chloroethoxy)methane	2572.67	330	3333.33	ND	77.2	47 - 105			
bis(2-Chloroethyl)ether	2558.33	330	3333.33	ND	76.8	49 - 101			
bis(2-chloroisopropyl)ether	2404.33	330	3333.33	ND	72.1	30 - 122			
bis(2-ethylhexyl)phthalate	2780.00	330	3333.33	ND	83.4	37 - 153			
Butylbenzylphthalate	2964.00	330	3333.33	ND	88.9	49 - 151			
Chrysene	3010.33	330	3333.33	ND	90.3	50 - 119			
Di-n-butylphthalate	3271.67	330	3333.33	ND	98.2	55 - 138			
Di-n-octylphthalate	2792.33	330	3333.33	ND	83.8	46 - 153			
Dibenz(a,h)anthracene	2656.33	330	3333.33	ND	79.7	42 - 139			
Dibenzofuran	3670.33	330	3333.33	ND	110	56 - 125			
Diethyl phthalate	3120.00	330	3333.33	ND	93.6	60 - 126			
Dimethyl phthalate	3042.67	330	3333.33	ND	91.3	58 - 123			
Fluoranthene	3046.67	330	3333.33	ND	91.4	53 - 121			
Fluorene	2839.33	330	3333.33	ND	85.2	49 - 120			
Hexachlorobenzene	3975.67	330	3333.33	ND	119	60 - 119			M2
Hexachlorobutadiene	2900.67	660	3333.33	ND	87.0	48 - 98			
Hexachlorocyclopentadiene	3638.33	660	3333.33	ND	109	33 - 123			
Hexachloroethane	3039.33	330	3333.33	ND	91.2	52 - 103			
Indeno(1,2,3-cd)pyrene	2756.67	330	3333.33	ND	82.7	47 - 141			
Isophorone	2727.67	330	3333.33	ND	81.8	43 - 117			
N-Nitroso-di-n propylamine	2662.00	330	3333.33	ND	79.9	43 - 125			
N-Nitrosodiphenylamine	3227.67	330	3333.33	ND	96.8	49 - 142			
Naphthalene	2593.00	330	3333.33	ND	77.8	41 - 111			
Nitrobenzene	3288.67	330	3333.33	ND	98.7	55 - 114			
Pentachlorophenol	3916.00	1600	3333.33	ND	117	40 - 163			
Phenanthrene	2947.67	330	3333.33	ND	88.4	49 - 125			
Phenol	2392.00	330	3333.33	ND	71.8	43 - 134			



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Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

Pyrene	3099.67	330	3333.33	ND	93.0	52 - 124			
Pyridine	2219.67	1600	3333.33	ND	66.6	31 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2304		3333.33		69.1	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2970		3333.33		89.1	12 - 129			
Surrogate: 2-Chlorophenol-d4	2299		3333.33		69.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2524		3333.33		75.7	25 - 116			
Surrogate: 2-Fluorophenol	2088		3333.33		62.6	32 - 101			
Surrogate: 4-Terphenyl-d14	2818		3333.33		84.5	34 - 125			
Surrogate: Nitrobenzene-d5	2392		3333.33		71.8	30 - 115			
Surrogate: Phenol-d5	2329		3333.33		69.9	34 - 104			

Matrix Spike (B6K0118-MS2)

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3512.67	330	3333.33	ND	105	53 - 106			
1,2-Dichlorobenzene	3290.00	330	3333.33	ND	98.7	52 - 99			
1,3-Dichlorobenzene	3143.00	330	3333.33	ND	94.3	52 - 98			
1,4-Dichlorobenzene	3173.00	330	3333.33	ND	95.2	48 - 96			
2,4,5-Trichlorophenol	3132.33	330	3333.33	ND	94.0	51 - 138			
2,4,6-Trichlorophenol	2840.00	330	3333.33	ND	85.2	46 - 162			
2,4-Dichlorophenol	2894.67	1600	3333.33	ND	86.8	49 - 141			
2,4-Dimethylphenol	2542.00	330	3333.33	ND	76.3	39 - 138			
2,4-Dinitrophenol	2722.67	1600	3333.33	ND	81.7	4 - 170			
2,4-Dinitrotoluene	3809.33	330	3333.33	ND	114	57 - 132			
2,6-Dinitrotoluene	3808.00	330	3333.33	ND	114	45 - 146			
2-Chloronaphthalene	3649.67	330	3333.33	ND	109	59 - 115			
2-Chlorophenol	2398.67	330	3333.33	ND	72.0	46 - 126			
2-Methylnaphthalene	3693.67	330	3333.33	ND	111	58 - 116			
2-Methylphenol	2663.67	330	3333.33	ND	79.9	50 - 112			
2-Nitroaniline	1945.00	1600	3333.33	ND	58.4	44 - 156			
2-Nitrophenol	2840.33	330	3333.33	ND	85.2	39 - 153			
3,3'-Dichlorobenzidine	2975.33	660	3333.33	ND	89.3	24 - 165			
3-Nitroaniline	2037.33	1600	3333.33	ND	61.1	47 - 135			
4,6-Dinitro-2-methylphenol	3286.67	1600	3333.33	ND	98.6	17 - 199			
4-Bromophenyl-phenylether	3154.00	330	3333.33	ND	94.6	57 - 119			
4-Chloro-3-methylphenol	3044.33	660	3333.33	ND	91.3	47 - 157			
4-Chloroaniline	1827.67	660	3333.33	ND	54.8	42 - 120			
4-Chlorophenyl-phenylether	2957.67	330	3333.33	ND	88.7	56 - 116			
4-Methylphenol	3032.33	330	3333.33	ND	91.0	52 - 119			
4-Nitroaniline	2069.67	1600	3333.33	ND	62.1	41 - 153			
4-Nitrophenol	2898.00	330	3333.33	ND	86.9	31 - 186			
Acenaphthene	2690.33	330	3333.33	ND	80.7	46 - 119			
Acenaphthylene	2741.00	330	3333.33	ND	82.2	51 - 114			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

Anthracene	2914.33	330	3333.33	ND	87.4	55 - 126			
Benzidine (M)	3217.33	1600	3333.33	ND	96.5	0 - 179			
Benzo(a)anthracene	2964.33	330	3333.33	ND	88.9	52 - 120			
Benzo(a)pyrene	2818.00	330	3333.33	ND	84.5	52 - 129			
Benzo(b)fluoranthene	2891.67	330	3333.33	ND	86.8	49 - 128			
Benzo(g,h,i)perylene	2880.33	330	3333.33	ND	86.4	45 - 123			
Benzo(k)fluoranthene	3105.33	330	3333.33	ND	93.2	44 - 127			
Benzoic acid	1916.33	1600	3333.33	ND	57.5	0 - 159			
Benzyl alcohol	3769.33	660	3333.33	ND	113	53 - 124			
bis(2-chloroethoxy)methane	2666.00	330	3333.33	ND	80.0	47 - 105			
bis(2-Chloroethyl)ether	2729.00	330	3333.33	ND	81.9	49 - 101			
bis(2-chloroisopropyl)ether	2523.00	330	3333.33	ND	75.7	30 - 122			
bis(2-ethylhexyl)phthalate	2773.67	330	3333.33	ND	83.2	37 - 153			
Butylbenzylphthalate	2974.33	330	3333.33	ND	89.2	49 - 151			
Chrysene	3002.67	330	3333.33	ND	90.1	50 - 119			
Di-n-butylphthalate	3229.00	330	3333.33	ND	96.9	55 - 138			
Di-n-octylphthalate	2805.33	330	3333.33	ND	84.2	46 - 153			
Dibenz(a,h)anthracene	2657.33	330	3333.33	ND	79.7	42 - 139			
Dibenzofuran	3695.33	330	3333.33	ND	111	56 - 125			
Diethyl phthalate	3101.67	330	3333.33	ND	93.1	60 - 126			
Dimethyl phthalate	3062.33	330	3333.33	ND	91.9	58 - 123			
Fluoranthene	3039.67	330	3333.33	ND	91.2	53 - 121			
Fluorene	2817.00	330	3333.33	ND	84.5	49 - 120			
Hexachlorobenzene	4041.00	330	3333.33	ND	121	60 - 119			M2
Hexachlorobutadiene	3058.00	660	3333.33	ND	91.7	48 - 98			
Hexachlorocyclopentadiene	3694.33	660	3333.33	ND	111	33 - 123			
Hexachloroethane	3160.33	330	3333.33	ND	94.8	52 - 103			
Indeno(1,2,3-cd)pyrene	2731.00	330	3333.33	ND	81.9	47 - 141			
Isophorone	2918.67	330	3333.33	ND	87.6	43 - 117			
N-Nitroso-di-n propylamine	2861.33	330	3333.33	ND	85.8	43 - 125			
N-Nitrosodiphenylamine	3244.00	330	3333.33	ND	97.3	49 - 142			
Naphthalene	2706.00	330	3333.33	ND	81.2	41 - 111			
Nitrobenzene	3516.33	330	3333.33	ND	105	55 - 114			
Pentachlorophenol	4210.00	1600	3333.33	ND	126	40 - 163			
Phenanthrene	2919.33	330	3333.33	ND	87.6	49 - 125			
Phenol	2528.33	330	3333.33	ND	75.8	43 - 134			
Pyrene	3092.00	330	3333.33	ND	92.8	52 - 124			
Pyridine	2254.67	1600	3333.33	ND	67.6	31 - 90			
Surrogate: 1,2-Dichlorobenzene-d4	2412		3333.33		72.4	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2918		3333.33		87.6	12 - 129			
Surrogate: 2-Chlorophenol-d4	2413		3333.33		72.4	34 - 102			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike (B6K0118-MS2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

Surrogate: 2-Fluorobiphenyl	2602		3333.33		78.1	25 - 116			
Surrogate: 2-Fluorophenol	2230		3333.33		66.9	32 - 101			
Surrogate: 4-Terphenyl-d14	2822		3333.33		84.7	34 - 125			
Surrogate: Nitrobenzene-d5	2549		3333.33		76.5	30 - 115			
Surrogate: Phenol-d5	2447		3333.33		73.4	34 - 104			

Matrix Spike Dup (B6K0118-MSD1)

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

1,2,4-Trichlorobenzene	3388.00	330	3333.33	ND	102	53 - 106	1.44	20	
1,2-Dichlorobenzene	3124.67	330	3333.33	ND	93.7	52 - 99	0.202	20	
1,3-Dichlorobenzene	3034.67	330	3333.33	ND	91.0	52 - 98	0.0440	20	
1,4-Dichlorobenzene	3044.67	330	3333.33	ND	91.3	48 - 96	0.153	20	
2,4,5-Trichlorophenol	3144.67	330	3333.33	ND	94.3	51 - 138	1.08	20	
2,4,6-Trichlorophenol	2828.00	330	3333.33	ND	84.8	46 - 162	1.89	20	
2,4-Dichlorophenol	2773.67	1600	3333.33	ND	83.2	49 - 141	0.0360	20	
2,4-Dimethylphenol	2344.00	330	3333.33	ND	70.3	39 - 138	1.27	20	
2,4-Dinitrophenol	3091.00	1600	3333.33	ND	92.7	4 - 170	3.38	20	
2,4-Dinitrotoluene	3801.33	330	3333.33	ND	114	57 - 132	1.82	20	
2,6-Dinitrotoluene	3753.00	330	3333.33	ND	113	45 - 146	0.222	20	
2-Chloronaphthalene	3595.33	330	3333.33	ND	108	59 - 115	1.89	20	
2-Chlorophenol	2324.33	330	3333.33	ND	69.7	46 - 126	0.720	20	
2-Methylnaphthalene	3509.67	330	3333.33	ND	105	58 - 116	0.681	20	
2-Methylphenol	2522.00	330	3333.33	ND	75.7	50 - 112	0.383	20	
2-Nitroaniline	1946.00	1600	3333.33	ND	58.4	44 - 156	0.206	20	
2-Nitrophenol	2666.33	330	3333.33	ND	80.0	39 - 153	0.0875	20	
3,3'-Dichlorobenzidine	2914.67	660	3333.33	ND	87.4	24 - 165	1.42	20	
3-Nitroaniline	2031.33	1600	3333.33	ND	60.9	47 - 135	1.55	20	
4,6-Dinitro-2-methylphenol	3298.67	1600	3333.33	ND	99.0	17 - 199	1.77	20	
4-Bromophenyl-phenylether	3193.00	330	3333.33	ND	95.8	57 - 119	1.59	20	
4-Chloro-3-methylphenol	2902.33	660	3333.33	ND	87.1	47 - 157	1.93	20	
4-Chloroaniline	1725.67	660	3333.33	ND	51.8	42 - 120	0.443	20	
4-Chlorophenyl-phenylether	2951.00	330	3333.33	ND	88.5	56 - 116	0.0226	20	
4-Methylphenol	2856.33	330	3333.33	ND	85.7	52 - 119	0.848	20	
4-Nitroaniline	2049.33	1600	3333.33	ND	61.5	41 - 153	3.50	20	
4-Nitrophenol	2974.33	330	3333.33	ND	89.2	31 - 186	3.37	20	
Acenaphthene	2621.00	330	3333.33	ND	78.6	46 - 119	1.46	20	
Acenaphthylene	2709.00	330	3333.33	ND	81.3	51 - 114	0.778	20	
Anthracene	2912.00	330	3333.33	ND	87.4	55 - 126	0.616	20	
Benzidine (M)	2812.67	1600	3333.33	ND	84.4	0 - 179	3.67	20	
Benzo(a)anthracene	2970.00	330	3333.33	ND	89.1	52 - 120	0.755	20	
Benzo(a)pyrene	2779.67	330	3333.33	ND	83.4	52 - 129	0.264	20	
Benzo(b)fluoranthene	3042.00	330	3333.33	ND	91.3	49 - 128	0.693	20	
Benzo(g,h,i)perylene	2913.67	330	3333.33	ND	87.4	45 - 123	0.331	20	



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike Dup (B6K0118-MSD1) - Continued

Source: 1603730-10

Prepared: 11/2/2016 Analyzed: 11/4/2016

Benzo(k)fluoranthene	2932.00	330	3333.33	ND	88.0	44 - 127	0.0455	20	
Benzoic acid	2581.33	1600	3333.33	ND	77.4	0 - 159	19.5	20	
Benzyl alcohol	3584.67	660	3333.33	ND	108	53 - 124	0.644	20	
bis(2-chloroethoxy)methane	2533.67	330	3333.33	ND	76.0	47 - 105	1.53	20	
bis(2-Chloroethyl)ether	2583.33	330	3333.33	ND	77.5	49 - 101	0.972	20	
bis(2-chloroisopropyl)ether	2388.33	330	3333.33	ND	71.6	30 - 122	0.668	20	
bis(2-ethylhexyl)phthalate	2830.67	330	3333.33	ND	84.9	37 - 153	1.81	20	
Butylbenzylphthalate	2965.00	330	3333.33	ND	89.0	49 - 151	0.0337	20	
Chrysene	3004.67	330	3333.33	ND	90.1	50 - 119	0.188	20	
Di-n-butylphthalate	3263.00	330	3333.33	ND	97.9	55 - 138	0.265	20	
Di-n-octylphthalate	2800.67	330	3333.33	ND	84.0	46 - 153	0.298	20	
Dibenz(a,h)anthracene	2687.67	330	3333.33	ND	80.6	42 - 139	1.17	20	
Dibenzofuran	3627.00	330	3333.33	ND	109	56 - 125	1.19	20	
Diethyl phthalate	3100.33	330	3333.33	ND	93.0	60 - 126	0.632	20	
Dimethyl phthalate	3007.67	330	3333.33	ND	90.2	58 - 123	1.16	20	
Fluoranthene	3080.33	330	3333.33	ND	92.4	53 - 121	1.10	20	
Fluorene	2785.00	330	3333.33	ND	83.6	49 - 120	1.93	20	
Hexachlorobenzene	4032.00	330	3333.33	ND	121	60 - 119	1.41	20	M2
Hexachlorobutadiene	2907.33	660	3333.33	ND	87.2	48 - 98	0.230	20	
Hexachlorocyclopentadiene	3666.00	660	3333.33	ND	110	33 - 123	0.758	20	
Hexachloroethane	3000.33	330	3333.33	ND	90.0	52 - 103	1.29	20	
Indeno(1,2,3-cd)pyrene	2738.33	330	3333.33	ND	82.2	47 - 141	0.667	20	
Isophorone	2704.67	330	3333.33	ND	81.1	43 - 117	0.847	20	
N-Nitroso-di-n propylamine	2675.33	330	3333.33	ND	80.3	43 - 125	0.500	20	
N-Nitrosodiphenylamine	3250.67	330	3333.33	ND	97.5	49 - 142	0.710	20	
Naphthalene	2563.67	330	3333.33	ND	76.9	41 - 111	1.14	20	
Nitrobenzene	3314.33	330	3333.33	ND	99.4	55 - 114	0.777	20	
Pentachlorophenol	4125.67	1600	3333.33	ND	124	40 - 163	5.21	20	
Phenanthrene	2923.00	330	3333.33	ND	87.7	49 - 125	0.840	20	
Phenol	2414.00	330	3333.33	ND	72.4	43 - 134	0.916	20	
Pyrene	3079.67	330	3333.33	ND	92.4	52 - 124	0.647	20	
Pyridine	2121.00	1600	3333.33	ND	63.6	31 - 90	4.55	20	

Surrogate: 1,2-Dichlorobenzene-d4	2311		3333.33		69.3	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2943		3333.33		88.3	12 - 129			
Surrogate: 2-Chlorophenol-d4	2299		3333.33		69.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2583		3333.33		77.5	25 - 116			
Surrogate: 2-Fluorophenol	2136		3333.33		64.1	32 - 101			
Surrogate: 4-Terphenyl-d14	2851		3333.33		85.5	34 - 125			
Surrogate: Nitrobenzene-d5	2421		3333.33		72.6	30 - 115			
Surrogate: Phenol-d5	2329		3333.33		69.9	34 - 104			

Matrix Spike Dup (B6K0118-MSD2)

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016



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Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K0118 - MSSEMI_S (continued)									
1,2,4-Trichlorobenzene	3445.33	330	3333.33	ND	103	53 - 106	1.94	20	
1,2-Dichlorobenzene	3142.33	330	3333.33	ND	94.3	52 - 99	4.59	20	
1,3-Dichlorobenzene	3125.33	330	3333.33	ND	93.8	52 - 98	0.564	20	
1,4-Dichlorobenzene	3145.00	330	3333.33	ND	94.4	48 - 96	0.886	20	
2,4,5-Trichlorophenol	3091.33	330	3333.33	ND	92.7	51 - 138	1.32	20	
2,4,6-Trichlorophenol	2771.00	330	3333.33	ND	83.1	46 - 162	2.46	20	
2,4-Dichlorophenol	2859.33	1600	3333.33	ND	85.8	49 - 141	1.23	20	
2,4-Dimethylphenol	2400.00	330	3333.33	ND	72.0	39 - 138	5.75	20	
2,4-Dinitrophenol	2562.33	1600	3333.33	ND	76.9	4 - 170	6.07	20	
2,4-Dinitrotoluene	3768.67	330	3333.33	ND	113	57 - 132	1.07	20	
2,6-Dinitrotoluene	3691.00	330	3333.33	ND	111	45 - 146	3.12	20	
2-Chloronaphthalene	3546.67	330	3333.33	ND	106	59 - 115	2.86	20	
2-Chlorophenol	2365.33	330	3333.33	ND	71.0	46 - 126	1.40	20	
2-Methylnaphthalene	3614.33	330	3333.33	ND	108	58 - 116	2.17	20	
2-Methylphenol	2640.33	330	3333.33	ND	79.2	50 - 112	0.880	20	
2-Nitroaniline	1938.00	1600	3333.33	ND	58.1	44 - 156	0.361	20	
2-Nitrophenol	2797.67	330	3333.33	ND	83.9	39 - 153	1.51	20	
3,3'-Dichlorobenzidine	2875.33	660	3333.33	ND	86.3	24 - 165	3.42	20	
3-Nitroaniline	2024.67	1600	3333.33	ND	60.7	47 - 135	0.624	20	
4,6-Dinitro-2-methylphenol	3190.00	1600	3333.33	ND	95.7	17 - 199	2.99	20	
4-Bromophenyl-phenylether	3150.33	330	3333.33	ND	94.5	57 - 119	0.116	20	
4-Chloro-3-methylphenol	2966.33	660	3333.33	ND	89.0	47 - 157	2.60	20	
4-Chloroaniline	1790.67	660	3333.33	ND	53.7	42 - 120	2.05	20	
4-Chlorophenyl-phenylether	2943.33	330	3333.33	ND	88.3	56 - 116	0.486	20	
4-Methylphenol	2940.33	330	3333.33	ND	88.2	52 - 119	3.08	20	
4-Nitroaniline	2084.67	1600	3333.33	ND	62.5	41 - 153	0.722	20	
4-Nitrophenol	2815.33	330	3333.33	ND	84.5	31 - 186	2.89	20	
Acenaphthene	2641.33	330	3333.33	ND	79.2	46 - 119	1.84	20	
Acenaphthylene	2702.33	330	3333.33	ND	81.1	51 - 114	1.42	20	
Anthracene	2906.67	330	3333.33	ND	87.2	55 - 126	0.263	20	
Benzidine (M)	2756.00	1600	3333.33	ND	82.7	0 - 179	15.4	20	
Benzo(a)anthracene	2900.33	330	3333.33	ND	87.0	52 - 120	2.18	20	
Benzo(a)pyrene	2809.67	330	3333.33	ND	84.3	52 - 129	0.296	20	
Benzo(b)fluoranthene	2933.67	330	3333.33	ND	88.0	49 - 128	1.44	20	
Benzo(g,h,i)perylene	2898.33	330	3333.33	ND	87.0	45 - 123	0.623	20	
Benzo(k)fluoranthene	3175.00	330	3333.33	ND	95.3	44 - 127	2.22	20	
Benzoic acid	1956.00	1600	3333.33	ND	58.7	0 - 159	2.05	20	
Benzyl alcohol	3673.33	660	3333.33	ND	110	53 - 124	2.58	20	
bis(2-chloroethoxy)methane	2621.67	330	3333.33	ND	78.7	47 - 105	1.68	20	
bis(2-Chloroethyl)ether	2654.67	330	3333.33	ND	79.6	49 - 101	2.76	20	
bis(2-chloroisopropyl)ether	2464.33	330	3333.33	ND	73.9	30 - 122	2.35	20	
bis(2-ethylhexyl)phthalate	2730.67	330	3333.33	ND	81.9	37 - 153	1.56	20	
Butylbenzylphthalate	2898.00	330	3333.33	ND	86.9	49 - 151	2.60	20	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 11/07/2016

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0118 - MSSEMI_S (continued)

Matrix Spike Dup (B6K0118-MSD2) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/4/2016

Chrysene	2935.67	330	3333.33	ND	88.1	50 - 119	2.26	20	
Di-n-butylphthalate	3214.00	330	3333.33	ND	96.4	55 - 138	0.466	20	
Di-n-octylphthalate	2799.33	330	3333.33	ND	84.0	46 - 153	0.214	20	
Dibenz(a,h)anthracene	2690.00	330	3333.33	ND	80.7	42 - 139	1.22	20	
Dibenzofuran	3591.67	330	3333.33	ND	108	56 - 125	2.85	20	
Diethyl phthalate	3031.67	330	3333.33	ND	91.0	60 - 126	2.28	20	
Dimethyl phthalate	2980.67	330	3333.33	ND	89.4	58 - 123	2.70	20	
Fluoranthene	3029.67	330	3333.33	ND	90.9	53 - 121	0.330	20	
Fluorene	2783.67	330	3333.33	ND	83.5	49 - 120	1.19	20	
Hexachlorobenzene	3997.33	330	3333.33	ND	120	60 - 119	1.09	20	M2
Hexachlorobutadiene	2982.67	660	3333.33	ND	89.5	48 - 98	2.49	20	
Hexachlorocyclopentadiene	3670.00	660	3333.33	ND	110	33 - 123	0.661	20	
Hexachloroethane	3062.67	330	3333.33	ND	91.9	52 - 103	3.14	20	
Indeno(1,2,3-cd)pyrene	2749.67	330	3333.33	ND	82.5	47 - 141	0.681	20	
Isophorone	2796.00	330	3333.33	ND	83.9	43 - 117	4.29	20	
N-Nitroso-di-n propylamine	2713.67	330	3333.33	ND	81.4	43 - 125	5.30	20	
N-Nitrosodiphenylamine	3231.00	330	3333.33	ND	96.9	49 - 142	0.402	20	
Naphthalene	2667.33	330	3333.33	ND	80.0	41 - 111	1.44	20	
Nitrobenzene	3387.67	330	3333.33	ND	102	55 - 114	3.73	20	
Pentachlorophenol	4159.00	1600	3333.33	ND	125	40 - 163	1.22	20	
Phenanthrene	2943.00	330	3333.33	ND	88.3	49 - 125	0.807	20	
Phenol	2483.00	330	3333.33	ND	74.5	43 - 134	1.81	20	
Pyrene	3124.67	330	3333.33	ND	93.7	52 - 124	1.05	20	
Pyridine	2216.33	1600	3333.33	ND	66.5	31 - 90	1.71	20	
Surrogate: 1,2-Dichlorobenzene-d4	2351		3333.33		70.5	22 - 107			
Surrogate: 2,4,6-Tribromophenol	2874		3333.33		86.2	12 - 129			
Surrogate: 2-Chlorophenol-d4	2335		3333.33		70.0	34 - 102			
Surrogate: 2-Fluorobiphenyl	2589		3333.33		77.7	25 - 116			
Surrogate: 2-Fluorophenol	2159		3333.33		64.8	32 - 101			
Surrogate: 4-Terphenyl-d14	2742		3333.33		82.3	34 - 125			
Surrogate: Nitrobenzene-d5	2498		3333.33		75.0	30 - 115			
Surrogate: Phenol-d5	2397		3333.33		71.9	34 - 104			



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 11/07/2016

Notes and Definitions

S10	Surrogate recovery was outside of laboratory acceptance limit due to possible matrix interference.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
B	Analyte detected in the associated method blank.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Tuesday, October 25, 2016 2:19 PM
To: Carmen Aguila; Nordenstam, John
Cc: Rachelle Arada; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS, 265642

Carmen,

Responses to your questions are provided below in red text. Please let me know if you have any additional questions.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 | F: 949.727.7311 | C: 949.244.8143

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From: Carmen Aguila [<mailto:Carmen@atlglobal.com>]
Sent: Tuesday, October 25, 2016 11:31 AM
To: Nordenstam, John <jnordenstam@trcsolutions.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>
Cc: Rachelle Arada <Rachelle@atlglobal.com>; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS, 265642

Hi Jeff/John,

The following were noted for the samples received last weekend:

1603732

- 2-voa vials for trip blank were received, but is not indicated on the CoC. **These samples were mistakenly not included on the CoC. Please analyze the trip blank for TPH-G and VOCs using EPA Methods 8015 and 8260B, respectively.**

1603730

- 3-voa vials for trip blank were received, but is not indicated on the CoC. **These samples were mistakenly not included on the CoC. Please analyze the trip blank for TPH-G and VOCs using EPA Methods 8015 and 8260B, respectively.**
- No sample received for FILL1-2.0-2.5 @840, but received 2-4oz jar labeled FILL 2- 2.0-2.5 @840. **The jars are labeled incorrectly; the two 4-oz jars that were collected at 8:40 a.m. should be labeled FILL 1-2.0-2.5 @ 840**
- Please provide sampler's name **The sampler's name is Ross Surrency.**

Please advise. Attached are copies of the CoC received.

Thank you,

Carmen Aguila

Sample Control



Advanced Technology Laboratories

www.atlglobal.com

Tel: (562) 989-4045 ext. 245

Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Friday, October 28, 2016 9:00 AM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at Clarifier and Hoists)

Rachelle,

For the soil samples collected from the clarifier and hoist locations on October 22, 2016, please perform the additional analyses specified below.

Duplicate Samples

Please pull an aliquot from the sample listed below and perform the duplicate analysis for TPH carbon chain (EPA 8015), VOCs (EPA 8260B), SVOCs (EPA 8270C), and metals (EPA 6010/7000):

- Sample CL1-2-5.0-5.5

Please pull an aliquot from the samples listed below and perform the duplicate analyses for TPH carbon chain (EPA 8015), PCBs (EPA 8082), and metals (EPA 6010/7000):

- Sample HL1-2-9.5-10
- Sample HL3-1-5.0-5.5
- Sample HL4-2-5.0-5.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
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November 09, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603733
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on October 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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9685 Research Drive
Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HL1-1-0.5-1.0	1603733-01	Soil	10/22/16 12:25	10/22/16 18:50
HL1-1-2.0-2.5	1603733-02	Soil	10/22/16 12:30	10/22/16 18:50
HL1-1-5.0-5.5	1603733-03	Soil	10/22/16 12:37	10/22/16 18:50
HL1-1-9.5-10.0	1603733-04	Soil	10/22/16 12:40	10/22/16 18:50
HL1-2-0.5-1.0	1603733-05	Soil	10/22/16 12:55	10/22/16 18:50
HL1-2-2.0-2.5	1603733-06	Soil	10/22/16 13:00	10/22/16 18:50
HL1-2-5.0-5.5	1603733-07	Soil	10/22/16 13:03	10/22/16 18:50
HL1-2-9.5-10.0	1603733-08	Soil	10/22/16 13:05	10/22/16 18:50
HL2-1-0.5-1.0	1603733-09	Soil	10/22/16 13:20	10/22/16 18:50
HL2-1-2.0-2.5	1603733-10	Soil	10/22/16 13:22	10/22/16 18:50
HL2-1-5.0-5.5	1603733-11	Soil	10/22/16 13:25	10/22/16 18:50
HL2-1-9.5-10.0	1603733-12	Soil	10/22/16 13:28	10/22/16 18:50
HL2-2-0.5-1.0	1603733-13	Soil	10/22/16 13:40	10/22/16 18:50
HL2-2-2.0-2.5	1603733-14	Soil	10/22/16 13:45	10/22/16 18:50
HL2-2-5.0-5.5	1603733-15	Soil	10/22/16 13:50	10/22/16 18:50
HL2-2-10.0-10.5	1603733-16	Soil	10/22/16 13:54	10/22/16 18:50
HL3-1-0.5-1.0	1603733-17	Soil	10/22/16 14:20	10/22/16 18:50
HL3-1-2.0-2.5	1603733-18	Soil	10/22/16 14:22	10/22/16 18:50
HL3-1-5.0-5.5	1603733-19	Soil	10/22/16 14:24	10/22/16 18:50
HL3-1-9.5-10.0	1603733-20	Soil	10/22/16 14:28	10/22/16 18:50
HL3-2-0.5-1.0	1603733-21	Soil	10/22/16 14:48	10/22/16 18:50
HL3-2-2.0-2.5	1603733-22	Soil	10/22/16 14:50	10/22/16 18:50
HL3-2-5.0-5.5	1603733-23	Soil	10/22/16 14:52	10/22/16 18:50
HL3-2-9.5-10.0	1603733-24	Soil	10/22/16 14:55	10/22/16 18:50
HL4-1-0.5-1.0	1603733-25	Soil	10/22/16 15:15	10/22/16 18:50
HL4-1-2.0-2.5	1603733-26	Soil	10/22/16 15:20	10/22/16 18:50
HL4-1-5.0-5.5	1603733-27	Soil	10/22/16 15:22	10/22/16 18:50
HL4-1-9.5-10.0	1603733-28	Soil	10/22/16 15:30	10/22/16 18:50
HL4-2-0.5-1.0	1603733-29	Soil	10/22/16 15:38	10/22/16 18:50
HL4-2-2.0-2.5	1603733-30	Soil	10/22/16 15:40	10/22/16 18:50
HL4-2-5.0-5.5	1603733-31	Soil	10/22/16 15:45	10/22/16 18:50
HL4-2-9.5-10.0	1603733-32	Soil	10/22/16 15:55	10/22/16 18:50
EB-HL-10-22-16	1603733-33	Water	10/22/16 16:20	10/22/16 18:50
HL1-2-9.5-10.0 Duplicate	1603733-34	Soil	10/22/16 13:05	10/22/16 18:50
HL3-1-5.0-5.5 Duplicate	1603733-35	Soil	10/22/16 14:24	10/22/16 18:50
HL4-2-5.0-5.5 Duplicate	1603733-36	Soil	10/22/16 15:45	10/22/16 18:50



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-1-0.5-1.0

Lab ID: 1603733-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0871	10/31/2016	11/01/16 10:49	
Arsenic	1.3	1.0	0.70	1	B6J0871	10/31/2016	11/01/16 10:49	
Barium	72	1.0	0.10	1	B6J0871	10/31/2016	11/01/16 10:49	
Beryllium	0.34	1.0	0.04	1	B6J0871	10/31/2016	11/01/16 10:49	J
Cadmium	ND	1.0	0.09	1	B6J0871	10/31/2016	11/01/16 10:49	
Chromium	7.5	1.0	0.12	1	B6J0871	10/31/2016	11/01/16 10:49	
Cobalt	3.7	1.0	0.10	1	B6J0871	10/31/2016	11/01/16 10:49	
Copper	6.5	2.0	0.11	1	B6J0871	10/31/2016	11/01/16 10:49	
Lead	2.1	1.0	0.11	1	B6J0871	10/31/2016	11/01/16 10:49	
Molybdenum	ND	1.0	0.13	1	B6J0871	10/31/2016	11/01/16 10:49	
Nickel	5.7	1.0	0.10	1	B6J0871	10/31/2016	11/01/16 10:49	
Selenium	ND	1.0	0.88	1	B6J0871	10/31/2016	11/01/16 10:49	
Silver	ND	1.0	0.04	1	B6J0871	10/31/2016	11/01/16 10:49	
Thallium	ND	1.0	0.42	1	B6J0871	10/31/2016	11/01/16 10:49	
Vanadium	17	1.0	0.19	1	B6J0871	10/31/2016	11/01/16 10:49	
Zinc	19	1.0	0.18	1	B6J0871	10/31/2016	11/01/16 10:49	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0872	10/31/2016	11/01/16 09:43	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.6	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:54	
C23-C36	3.2	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:54	
Surrogate: p-Terphenyl	59.5 %		18 - 130		B6J0698	10/26/2016	10/26/16 14:54	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-1-0.5-1.0

Lab ID: 1603733-01

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 20:49	
Surrogate: Decachlorobiphenyl	66.3 %		26 - 137		B6J0719	10/26/2016	10/27/16 20:49	
Surrogate: Tetrachloro-m-xylene	69.8 %		28 - 102		B6J0719	10/26/2016	10/27/16 20:49	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-1-2.0-2.5

Lab ID: 1603733-02

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:48	
Arsenic	1.5	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:48	
Barium	99	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:48	
Beryllium	0.36	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:48	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:48	
Chromium	11	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:48	
Cobalt	5.7	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:48	
Copper	8.7	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:48	
Lead	1.8	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:48	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:48	
Nickel	7.6	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:48	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:48	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:48	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:48	
Vanadium	32	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:48	
Zinc	32	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:48	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:20	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.6	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:02	
C23-C36	2.1	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:02	
Surrogate: p-Terphenyl	70.0 %		18 - 130		B6J0698	10/26/2016	10/26/16 12:02	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-1-2.0-2.5

Lab ID: 1603733-02

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:07	
<i>Surrogate: Decachlorobiphenyl</i>	<i>59.3 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/27/16 21:07</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>58.5 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/27/16 21:07</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-1-5.0-5.5

Lab ID: 1603733-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0871	10/31/2016	11/01/16 10:50	
Arsenic	1.4	1.0	0.70	1	B6J0871	10/31/2016	11/01/16 10:50	
Barium	42	1.0	0.10	1	B6J0871	10/31/2016	11/01/16 10:50	
Beryllium	0.16	1.0	0.04	1	B6J0871	10/31/2016	11/01/16 10:50	J
Cadmium	ND	1.0	0.09	1	B6J0871	10/31/2016	11/01/16 10:50	
Chromium	8.0	1.0	0.12	1	B6J0871	10/31/2016	11/01/16 10:50	
Cobalt	3.6	1.0	0.10	1	B6J0871	10/31/2016	11/01/16 10:50	
Copper	5.2	2.0	0.11	1	B6J0871	10/31/2016	11/01/16 10:50	
Lead	1.3	1.0	0.11	1	B6J0871	10/31/2016	11/01/16 10:50	
Molybdenum	ND	1.0	0.13	1	B6J0871	10/31/2016	11/01/16 10:50	
Nickel	5.8	1.0	0.10	1	B6J0871	10/31/2016	11/01/16 10:50	
Selenium	ND	1.0	0.88	1	B6J0871	10/31/2016	11/01/16 10:50	
Silver	ND	1.0	0.04	1	B6J0871	10/31/2016	11/01/16 10:50	
Thallium	ND	1.0	0.42	1	B6J0871	10/31/2016	11/01/16 10:50	
Vanadium	14	1.0	0.19	1	B6J0871	10/31/2016	11/01/16 10:50	
Zinc	15	1.0	0.18	1	B6J0871	10/31/2016	11/01/16 10:50	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0872	10/31/2016	11/01/16 09:45	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.1	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:20	
C23-C36	2.2	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:20	
Surrogate: p-Terphenyl	78.2 %		18 - 130		B6J0698	10/26/2016	10/26/16 12:20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-1-5.0-5.5

Lab ID: 1603733-03

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:24	
<i>Surrogate: Decachlorobiphenyl</i>	<i>62.5 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/27/16 21:24</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>62.0 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/27/16 21:24</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-1-9.5-10.0

Lab ID: 1603733-04

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:49	
Arsenic	2.3	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:49	
Barium	29	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:49	
Beryllium	0.10	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:49	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:49	
Chromium	4.0	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:49	
Cobalt	2.4	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:49	
Copper	3.3	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:49	
Lead	1.1	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:49	
Molybdenum	0.20	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:49	J
Nickel	2.6	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:49	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:49	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:49	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:49	
Vanadium	19	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:49	
Zinc	11	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:49	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:22	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.5	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:37	
C23-C36	1.0	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:37	
Surrogate: <i>p</i> -Terphenyl	71.0 %		18 - 130		B6J0698	10/26/2016	10/26/16 12:37	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-1-9.5-10.0

Lab ID: 1603733-04

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 21:42	
<i>Surrogate: Decachlorobiphenyl</i>	<i>71.6 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/27/16 21:42</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>70.9 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/27/16 21:42</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-2-0.5-1.0

Lab ID: 1603733-05

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:50	
Arsenic	ND	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:50	
Barium	96	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:50	
Beryllium	0.37	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:50	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:50	
Chromium	9.9	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:50	
Cobalt	9.7	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:50	
Copper	8.2	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:50	
Lead	2.3	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:50	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:50	
Nickel	7.3	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:50	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:50	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:50	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:50	
Vanadium	22	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:50	
Zinc	27	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:50	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:24	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.2	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:54	
C23-C36	3.6	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 12:54	
<i>Surrogate: p-Terphenyl</i>	<i>84.9 %</i>		<i>18 - 130</i>		B6J0698	10/26/2016	<i>10/26/16 12:54</i>	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-2-0.5-1.0

Lab ID: 1603733-05

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:00	
<i>Surrogate: Decachlorobiphenyl</i>	78.4 %		26 - 137		B6J0719	10/26/2016	10/27/16 22:00	
<i>Surrogate: Tetrachloro-m-xylene</i>	76.9 %		28 - 102		B6J0719	10/26/2016	10/27/16 22:00	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-2-2.0-2.5

Lab ID: 1603733-06

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:51	
Arsenic	1.4	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:51	
Barium	120	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:51	
Beryllium	0.47	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:51	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:51	
Chromium	14	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:51	
Cobalt	5.4	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:51	
Copper	13	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:51	
Lead	3.1	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:51	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:51	
Nickel	9.3	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:51	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:51	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:51	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:51	
Vanadium	29	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:51	
Zinc	32	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:51	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.05	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:26	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.4	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 13:11	
C23-C36	1.3	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 13:11	
Surrogate: p-Terphenyl	66.7 %		18 - 130		B6J0698	10/26/2016	10/26/16 13:11	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-2-2.0-2.5

Lab ID: 1603733-06

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:18	
<i>Surrogate: Decachlorobiphenyl</i>	<i>80.3 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/27/16 22:18</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>81.8 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/27/16 22:18</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-2-5.0-5.5

Lab ID: 1603733-07

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:52	
Arsenic	1.4	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:52	
Barium	48	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:52	
Beryllium	0.20	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:52	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:52	
Chromium	11	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:52	
Cobalt	5.9	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:52	
Copper	5.4	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:52	
Lead	1.8	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:52	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:52	
Nickel	7.0	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:52	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:52	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:52	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:52	
Vanadium	25	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:52	
Zinc	15	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:52	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:28	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.6	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:20	
C23-C36	1.3	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:20	
Surrogate: p-Terphenyl	57.0 %		18 - 130		B6J0698	10/26/2016	10/26/16 14:20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-2-5.0-5.5

Lab ID: 1603733-07

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:35	
<i>Surrogate: Decachlorobiphenyl</i>	<i>78.4 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/27/16 22:35</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>79.6 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/27/16 22:35</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-2-9.5-10.0

Lab ID: 1603733-08

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:53	
Arsenic	1.2	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:53	
Barium	39	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:53	
Beryllium	0.19	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:53	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:53	
Chromium	11	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:53	
Cobalt	4.1	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:53	
Copper	4.9	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:53	
Lead	1.4	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:53	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:53	
Nickel	6.3	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:53	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:53	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:53	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:53	
Vanadium	23	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:53	
Zinc	15	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:53	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:30	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.6	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 13:29	
C23-C36	2.2	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 13:29	
Surrogate: p-Terphenyl	75.3 %		18 - 130		B6J0698	10/26/2016	10/26/16 13:29	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-2-9.5-10.0

Lab ID: 1603733-08

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 22:53	
<i>Surrogate: Decachlorobiphenyl</i>	<i>77.0 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/27/16 22:53</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>85.4 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/27/16 22:53</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-1-0.5-1.0

Lab ID: 1603733-09

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:54	
Arsenic	1.7	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:54	
Barium	75	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:54	
Beryllium	0.25	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:54	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:54	
Chromium	9.5	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:54	
Cobalt	4.6	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:54	
Copper	8.0	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:54	
Lead	5.0	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:54	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:54	
Nickel	6.0	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:54	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:54	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:54	
Thallium	0.56	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:54	J
Vanadium	19	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:54	
Zinc	30	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:54	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:37	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.0	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 13:46	
C23-C36	1.6	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 13:46	
Surrogate: p-Terphenyl	69.8 %		18 - 130		B6J0698	10/26/2016	10/26/16 13:46	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-1-0.5-1.0

Lab ID: 1603733-09

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:11	
<i>Surrogate: Decachlorobiphenyl</i>	78.5 %		26 - 137		B6J0719	10/26/2016	10/27/16 23:11	
<i>Surrogate: Tetrachloro-m-xylene</i>	84.2 %		28 - 102		B6J0719	10/26/2016	10/27/16 23:11	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-1-2.0-2.5

Lab ID: 1603733-10

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:58	
Arsenic	1.2	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:58	
Barium	61	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:58	
Beryllium	0.34	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:58	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:58	
Chromium	10	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:58	
Cobalt	5.6	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:58	
Copper	5.8	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:58	
Lead	2.1	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:58	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:58	
Nickel	8.1	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:58	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:58	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:58	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:58	
Vanadium	24	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:58	
Zinc	17	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:58	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:39	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	4.2	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:03	
C23-C36	3.0	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:03	
Surrogate: p-Terphenyl	83.2 %		18 - 130		B6J0698	10/26/2016	10/26/16 14:03	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-1-2.0-2.5

Lab ID: 1603733-10

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/27/16 23:29	
<i>Surrogate: Decachlorobiphenyl</i>	<i>71.7 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/27/16 23:29</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>73.5 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/27/16 23:29</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-1-5.0-5.5

Lab ID: 1603733-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0808	10/29/2016	10/31/16 16:59	
Arsenic	0.77	1.0	0.70	1	B6J0808	10/29/2016	10/31/16 16:59	J
Barium	44	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:59	
Beryllium	0.20	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:59	J
Cadmium	ND	1.0	0.09	1	B6J0808	10/29/2016	10/31/16 16:59	
Chromium	9.7	1.0	0.12	1	B6J0808	10/29/2016	10/31/16 16:59	
Cobalt	5.8	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:59	
Copper	4.5	2.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:59	
Lead	1.4	1.0	0.11	1	B6J0808	10/29/2016	10/31/16 16:59	
Molybdenum	ND	1.0	0.13	1	B6J0808	10/29/2016	10/31/16 16:59	
Nickel	7.1	1.0	0.10	1	B6J0808	10/29/2016	10/31/16 16:59	
Selenium	ND	1.0	0.88	1	B6J0808	10/29/2016	10/31/16 16:59	
Silver	ND	1.0	0.04	1	B6J0808	10/29/2016	10/31/16 16:59	
Thallium	ND	1.0	0.42	1	B6J0808	10/29/2016	10/31/16 16:59	
Vanadium	18	1.0	0.19	1	B6J0808	10/29/2016	10/31/16 16:59	
Zinc	17	1.0	0.18	1	B6J0808	10/29/2016	10/31/16 16:59	B

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0804	10/29/2016	10/31/16 15:41	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.3	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 10:19	
C23-C36	1.5	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 10:19	
Surrogate: p-Terphenyl	77.0 %		18 - 130		B6J0698	10/26/2016	10/26/16 10:19	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-1-5.0-5.5

Lab ID: 1603733-11

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:22	
<i>Surrogate: Decachlorobiphenyl</i>	<i>74.3 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 00:22</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>76.4 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 00:22</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-1-9.5-10.0

Lab ID: 1603733-12

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:05	
Arsenic	1.7	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:05	
Barium	17	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:05	
Beryllium	0.09	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:05	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:05	
Chromium	3.2	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:05	
Cobalt	1.7	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:05	
Copper	2.6	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:05	
Lead	0.72	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:05	J
Molybdenum	1.1	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:05	
Nickel	1.9	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:05	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:05	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:05	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:05	
Vanadium	13	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:05	
Zinc	6.4	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:05	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 15:47	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	ND	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 11:10	
C23-C36	ND	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 11:10	
Surrogate: <i>p</i> -Terphenyl	58.9 %		18 - 130		B6J0698	10/26/2016	10/26/16 11:10	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-1-9.5-10.0

Lab ID: 1603733-12

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:40	
<i>Surrogate: Decachlorobiphenyl</i>	<i>82.9 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 00:40</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>87.9 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 00:40</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-2-0.5-1.0

Lab ID: 1603733-13

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:12	
Arsenic	1.3	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:12	
Barium	76	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:12	
Beryllium	0.37	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:12	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:12	
Chromium	12	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:12	
Cobalt	7.9	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:12	
Copper	7.9	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:12	
Lead	2.7	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:12	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:12	
Nickel	7.8	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:12	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:12	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:12	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:12	
Vanadium	27	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:12	
Zinc	23	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:12	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:01	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.6	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 11:28	
C23-C36	4.2	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 11:28	
Surrogate: <i>p</i> -Terphenyl	79.4 %		18 - 130		B6J0698	10/26/2016	10/26/16 11:28	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-2-0.5-1.0

Lab ID: 1603733-13

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 00:58	
<i>Surrogate: Decachlorobiphenyl</i>	<i>73.1 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 00:58</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>75.4 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 00:58</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-2-2.0-2.5

Lab ID: 1603733-14

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:13	
Arsenic	0.89	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:13	J
Barium	70	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:13	
Beryllium	0.30	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:13	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:13	
Chromium	8.6	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:13	
Cobalt	4.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:13	
Copper	5.6	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:13	
Lead	2.2	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:13	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:13	
Nickel	6.5	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:13	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:13	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:13	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:13	
Vanadium	21	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:13	
Zinc	19	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:13	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:03	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.9	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 11:45	
C23-C36	1.4	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 11:45	
Surrogate: <i>p</i> -Terphenyl	79.6 %		18 - 130		B6J0698	10/26/2016	10/26/16 11:45	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-2-2.0-2.5

Lab ID: 1603733-14

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:15	
<i>Surrogate: Decachlorobiphenyl</i>	<i>67.0 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 01:15</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>66.3 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 01:15</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-2-5.0-5.5

Lab ID: 1603733-15

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:14	
Arsenic	1.1	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:14	
Barium	70	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:14	
Beryllium	0.23	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:14	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:14	
Chromium	11	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:14	
Cobalt	5.3	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:14	
Copper	5.9	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:14	
Lead	1.6	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:14	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:14	
Nickel	8.9	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:14	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:14	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:14	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:14	
Vanadium	19	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:14	
Zinc	22	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:14	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:05	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1900	100	100	100	B6J0698	10/26/2016	10/26/16 15:37	
C23-C36	4700	100	100	100	B6J0698	10/26/2016	10/26/16 15:37	
Surrogate: p-Terphenyl	0%	18 - 130			B6J0698	10/26/2016	10/26/16 15:37	S4



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-2-5.0-5.5

Lab ID: 1603733-15

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:33	
<i>Surrogate: Decachlorobiphenyl</i>	<i>46.3 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 01:33</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>67.0 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 01:33</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL2-2-10-0-10.5

Lab ID: 1603733-16

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 19:18	
Arsenic	0.88	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 19:18	J
Barium	38	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 19:18	
Beryllium	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 19:18	
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 19:18	
Chromium	2.7	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 19:18	
Cobalt	1.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 19:18	
Copper	2.6	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 19:18	
Lead	0.79	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 19:18	J
Molybdenum	0.52	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 19:18	J
Nickel	2.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 19:18	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 19:18	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 19:18	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 19:18	
Vanadium	10	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 19:18	
Zinc	5.9	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 19:18	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:07	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	7.3	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:37	
C23-C36	8.2	1.0	1.0	1	B6J0698	10/26/2016	10/26/16 14:37	
Surrogate: <i>p</i> -Terphenyl	80.2 %		18 - 130		B6J0698	10/26/2016	10/26/16 14:37	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL2-2-10-0-10.5

Lab ID: 1603733-16

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 01:51	
<i>Surrogate: Decachlorobiphenyl</i>	<i>70.0 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 01:51</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>67.8 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 01:51</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-1-0.5-1.0

Lab ID: 1603733-17

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:16	
Arsenic	ND	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:16	
Barium	51	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:16	
Beryllium	0.22	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:16	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:16	
Chromium	7.7	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:16	
Cobalt	3.8	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:16	
Copper	5.2	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:16	
Lead	3.0	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:16	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:16	
Nickel	4.3	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:16	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:16	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:16	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:16	
Vanadium	16	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:16	
Zinc	17	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:16	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:09	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.8	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 19:48	
C23-C36	1.8	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 19:48	
Surrogate: <i>p</i> -Terphenyl	57.7 %		18 - 130		B6J0722	10/26/2016	10/26/16 19:48	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-1-0.5-1.0

Lab ID: 1603733-17

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:08	
<i>Surrogate: Decachlorobiphenyl</i>	<i>80.8 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 02:08</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>84.7 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 02:08</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-1-2.0-2.5

Lab ID: 1603733-18

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:17	
Arsenic	ND	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:17	
Barium	57	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:17	
Beryllium	0.34	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:17	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:17	
Chromium	10	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:17	
Cobalt	6.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:17	
Copper	6.7	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:17	
Lead	2.4	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:17	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:17	
Nickel	7.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:17	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:17	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:17	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:17	
Vanadium	24	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:17	
Zinc	26	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:17	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:11	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.3	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:05	
C23-C36	2.3	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:05	
Surrogate: <i>p</i> -Terphenyl	55.8 %		18 - 130		B6J0722	10/26/2016	10/26/16 20:05	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-1-2.0-2.5

Lab ID: 1603733-18

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:26	
<i>Surrogate: Decachlorobiphenyl</i>	<i>67.3 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 02:26</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>67.4 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 02:26</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-1-5.0-5.5

Lab ID: 1603733-19

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:19	
Arsenic	1.1	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:19	
Barium	59	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:19	
Beryllium	0.30	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:19	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:19	
Chromium	12	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:19	
Cobalt	4.2	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:19	
Copper	5.0	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:19	
Lead	1.6	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:19	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:19	
Nickel	8.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:19	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:19	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:19	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:19	
Vanadium	19	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:19	
Zinc	16	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:19	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:13	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.8	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:22	
C23-C36	3.0	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:22	
Surrogate: p-Terphenyl	74.4 %		18 - 130		B6J0722	10/26/2016	10/26/16 20:22	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-1-5.0-5.5

Lab ID: 1603733-19

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 02:44	
<i>Surrogate: Decachlorobiphenyl</i>	<i>75.0 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 02:44</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>74.3 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 02:44</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-1-9.5-10.0

Lab ID: 1603733-20

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:20	
Arsenic	1.1	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:20	
Barium	65	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:20	
Beryllium	0.06	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:20	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:20	
Chromium	2.5	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:20	
Cobalt	1.2	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:20	
Copper	2.0	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:20	J
Lead	0.61	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:20	J
Molybdenum	0.61	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:20	J
Nickel	2.5	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:20	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:20	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:20	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:20	
Vanadium	9.7	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:20	
Zinc	4.6	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:20	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:15	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.4	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:39	
C23-C36	1.6	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:39	
Surrogate: <i>p</i> -Terphenyl	63.0 %		18 - 130		B6J0722	10/26/2016	10/26/16 20:39	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-1-9.5-10.0

Lab ID: 1603733-20

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1221	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1232	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1242	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1248	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1254	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1260	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1262	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
Aroclor 1268	ND	16	1.5	1	B6J0719	10/26/2016	10/28/16 03:02	
<i>Surrogate: Decachlorobiphenyl</i>	<i>81.6 %</i>		<i>26 - 137</i>		B6J0719	10/26/2016	<i>10/28/16 03:02</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>85.4 %</i>		<i>28 - 102</i>		B6J0719	10/26/2016	<i>10/28/16 03:02</i>	



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Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-2-0.5-1.0

Lab ID: 1603733-21

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:21	
Arsenic	0.93	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:21	J
Barium	69	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:21	
Beryllium	0.27	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:21	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:21	
Chromium	7.5	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:21	
Cobalt	3.1	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:21	
Copper	7.4	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:21	
Lead	2.2	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:21	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:21	
Nickel	4.4	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:21	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:21	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:21	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:21	
Vanadium	17	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:21	
Zinc	21	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:21	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:17	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.3	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:57	
C23-C36	2.7	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 20:57	
Surrogate: <i>p</i> -Terphenyl	74.1 %		18 - 130		B6J0722	10/26/2016	10/26/16 20:57	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-2-0.5-1.0

Lab ID: 1603733-21

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 12:50	
<i>Surrogate: Decachlorobiphenyl</i>	<i>74.4 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 12:50</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>82.5 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 12:50</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-2-2.0-2.5

Lab ID: 1603733-22

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:23	
Arsenic	1.1	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:23	
Barium	130	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:23	
Beryllium	0.33	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:23	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:23	
Chromium	9.6	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:23	
Cobalt	4.6	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:23	
Copper	7.2	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:23	
Lead	1.8	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:23	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:23	
Nickel	6.8	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:23	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:23	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:23	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:23	
Vanadium	23	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:23	
Zinc	23	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:23	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:19	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.6	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 21:14	
C23-C36	3.5	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 21:14	
Surrogate: p-Terphenyl	76.8 %		18 - 130		B6J0722	10/26/2016	10/26/16 21:14	



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Report To : John Nordenstam

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Client Sample ID HL3-2-2.0-2.5

Lab ID: 1603733-22

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:25	
<i>Surrogate: Decachlorobiphenyl</i>	<i>61.7 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 13:25</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>68.7 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 13:25</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-2-5.0-5.5

Lab ID: 1603733-23

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:26	
Arsenic	ND	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:26	
Barium	36	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:26	
Beryllium	0.09	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:26	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:26	
Chromium	5.5	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:26	
Cobalt	2.6	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:26	
Copper	3.4	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:26	
Lead	0.88	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:26	J
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:26	
Nickel	2.8	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:26	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:26	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:26	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:26	
Vanadium	12	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:26	
Zinc	11	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:26	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:26	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.0	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 21:31	
C23-C36	2.3	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 21:31	
<i>Surrogate: p-Terphenyl</i>	<i>65.9 %</i>		<i>18 - 130</i>		B6J0722	10/26/2016	<i>10/26/16 21:31</i>	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-2-5.0-5.5

Lab ID: 1603733-23

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:43	
<i>Surrogate: Decachlorobiphenyl</i>	<i>75.6 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 13:43</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>83.0 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 13:43</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-2-9.5-10.0

Lab ID: 1603733-24

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:27	
Arsenic	1.9	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:27	
Barium	100	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:27	
Beryllium	0.32	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:27	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:27	
Chromium	11	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:27	
Cobalt	4.7	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:27	
Copper	7.4	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:27	
Lead	17	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:27	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:27	
Nickel	6.5	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:27	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:27	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:27	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:27	
Vanadium	24	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:27	
Zinc	37	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:28	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.6	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 21:48	
C23-C36	3.3	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 21:48	
Surrogate: <i>p</i> -Terphenyl	85.5 %		18 - 130		B6J0722	10/26/2016	10/26/16 21:48	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-2-9.5-10.0

Lab ID: 1603733-24

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 13:07	
<i>Surrogate: Decachlorobiphenyl</i>	<i>68.6 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 13:07</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>57.2 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 13:07</i>	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-1-0.5-1.0

Lab ID: 1603733-25

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:28	
Arsenic	1.5	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:28	
Barium	140	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:28	
Beryllium	0.37	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:28	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:28	
Chromium	13	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:28	
Cobalt	6.6	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:28	
Copper	9.3	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:28	
Lead	2.8	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:28	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:28	
Nickel	9.3	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:28	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:28	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:28	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:28	
Vanadium	31	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:28	
Zinc	30	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:28	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:30	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.0	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 22:39	
C23-C36	13	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 22:39	
Surrogate: <i>p</i> -Terphenyl	86.0 %		18 - 130		B6J0722	10/26/2016	10/26/16 22:39	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-1-0.5-1.0

Lab ID: 1603733-25

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:01	
<i>Surrogate: Decachlorobiphenyl</i>	<i>81.4 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 14:01</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>92.4 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 14:01</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-1-2.0-2.5

Lab ID: 1603733-26

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:30	
Arsenic	1.3	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:30	
Barium	150	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:30	
Beryllium	0.41	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:30	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:30	
Chromium	14	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:30	
Cobalt	6.9	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:30	
Copper	9.8	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:30	
Lead	3.0	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:30	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:30	
Nickel	9.9	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:30	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:30	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:30	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:30	
Vanadium	28	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:30	
Zinc	32	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:30	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:32	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	3.7	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 22:05	
C23-C36	3.9	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 22:05	
Surrogate: <i>p</i> -Terphenyl	87.4 %		18 - 130		B6J0722	10/26/2016	10/26/16 22:05	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-1-2.0-2.5

Lab ID: 1603733-26

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:18	
<i>Surrogate: Decachlorobiphenyl</i>	<i>75.2 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 14:18</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>79.9 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 14:18</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-1-5.0-5.5

Lab ID: 1603733-27

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:31	
Arsenic	1.6	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:31	
Barium	99	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:31	
Beryllium	0.42	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:31	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:31	
Chromium	14	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:31	
Cobalt	4.2	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:31	
Copper	7.0	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:31	
Lead	2.9	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:31	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:31	
Nickel	8.8	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:31	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:31	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:31	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:31	
Vanadium	30	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:31	
Zinc	22	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:31	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:34	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.1	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 18:22	
C23-C36	1.0	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 18:22	
Surrogate: p-Terphenyl	83.1 %		18 - 130		B6J0722	10/26/2016	10/26/16 18:22	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-1-5.0-5.5

Lab ID: 1603733-27

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 14:36	
<i>Surrogate: Decachlorobiphenyl</i>	<i>73.3 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 14:36</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>78.6 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 14:36</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-1-9.5-10.0

Lab ID: 1603733-28

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:32	
Arsenic	2.6	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:32	
Barium	32	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:32	
Beryllium	0.11	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:32	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:32	
Chromium	6.6	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:32	
Cobalt	2.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:32	
Copper	3.3	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:32	
Lead	1.2	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:32	
Molybdenum	0.47	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:32	J
Nickel	3.1	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:32	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:32	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:32	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:32	
Vanadium	34	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:32	
Zinc	8.8	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:32	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:36	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.7	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 18:39	
C23-C36	3.1	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 18:39	
Surrogate: p-Terphenyl	74.6 %		18 - 130		B6J0722	10/26/2016	10/26/16 18:39	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-1-9.5-10.0

Lab ID: 1603733-28

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:29	
<i>Surrogate: Decachlorobiphenyl</i>	<i>59.1 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 15:29</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>59.5 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 15:29</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-2-0.5-1.0

Lab ID: 1603733-29

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:33	
Arsenic	2.2	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:33	
Barium	88	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:33	
Beryllium	0.27	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:33	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:33	
Chromium	13	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:33	
Cobalt	5.0	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:33	
Copper	8.4	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:33	
Lead	4.3	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:33	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:33	
Nickel	8.0	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:33	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:33	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:33	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:33	
Vanadium	25	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:33	
Zinc	25	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:33	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:38	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	5.5	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 22:22	
C23-C36	11	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 22:22	
Surrogate: p-Terphenyl	85.0 %		18 - 130		B6J0722	10/26/2016	10/26/16 22:22	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-2-0.5-1.0

Lab ID: 1603733-29

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
Aroclor 1254	6.7	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	J
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 15:47	
<i>Surrogate: Decachlorobiphenyl</i>	<i>75.4 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 15:47</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>82.5 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 15:47</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-2-2.0-2.5

Lab ID: 1603733-30

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0809	10/29/2016	10/31/16 17:34	
Arsenic	1.4	1.0	0.70	1	B6J0809	10/29/2016	10/31/16 17:34	
Barium	82	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:34	
Beryllium	0.21	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:34	J
Cadmium	ND	1.0	0.09	1	B6J0809	10/29/2016	10/31/16 17:34	
Chromium	8.5	1.0	0.12	1	B6J0809	10/29/2016	10/31/16 17:34	
Cobalt	4.2	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:34	
Copper	5.4	2.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:34	
Lead	1.6	1.0	0.11	1	B6J0809	10/29/2016	10/31/16 17:34	
Molybdenum	ND	1.0	0.13	1	B6J0809	10/29/2016	10/31/16 17:34	
Nickel	6.5	1.0	0.10	1	B6J0809	10/29/2016	10/31/16 17:34	
Selenium	ND	1.0	0.88	1	B6J0809	10/29/2016	10/31/16 17:34	
Silver	ND	1.0	0.04	1	B6J0809	10/29/2016	10/31/16 17:34	
Thallium	ND	1.0	0.42	1	B6J0809	10/29/2016	10/31/16 17:34	
Vanadium	21	1.0	0.19	1	B6J0809	10/29/2016	10/31/16 17:34	
Zinc	19	1.0	0.18	1	B6J0809	10/29/2016	10/31/16 17:34	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0805	10/29/2016	10/31/16 16:40	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.6	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 18:56	
C23-C36	1.5	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 18:56	
Surrogate: <i>p</i> -Terphenyl	67.0 %		18 - 130		B6J0722	10/26/2016	10/26/16 18:56	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-2-2.0-2.5

Lab ID: 1603733-30

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:05	
<i>Surrogate: Decachlorobiphenyl</i>	<i>71.5 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 16:05</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>83.7 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 16:05</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-2-5.0-5.5

Lab ID: 1603733-31

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0810	10/29/2016	10/31/16 10:02	
Arsenic	2.4	1.0	0.70	1	B6J0810	10/29/2016	10/31/16 10:02	
Barium	54	1.0	0.10	1	B6J0810	10/29/2016	10/31/16 10:02	
Beryllium	0.28	1.0	0.04	1	B6J0810	10/29/2016	10/31/16 10:02	J
Cadmium	ND	1.0	0.09	1	B6J0810	10/29/2016	10/31/16 10:02	
Chromium	10	1.0	0.12	1	B6J0810	10/29/2016	10/31/16 10:02	
Cobalt	3.5	1.0	0.10	1	B6J0810	10/29/2016	10/31/16 10:02	
Copper	4.5	2.0	0.11	1	B6J0810	10/29/2016	10/31/16 10:02	
Lead	1.8	1.0	0.11	1	B6J0810	10/29/2016	10/31/16 10:02	
Molybdenum	ND	1.0	0.13	1	B6J0810	10/29/2016	10/31/16 10:02	
Nickel	8.1	1.0	0.10	1	B6J0810	10/29/2016	10/31/16 10:02	
Selenium	ND	1.0	0.88	1	B6J0810	10/29/2016	10/31/16 10:02	
Silver	ND	1.0	0.04	1	B6J0810	10/29/2016	10/31/16 10:02	
Thallium	ND	1.0	0.42	1	B6J0810	10/29/2016	10/31/16 10:02	
Vanadium	26	1.0	0.19	1	B6J0810	10/29/2016	10/31/16 10:02	
Zinc	17	1.0	0.18	1	B6J0810	10/29/2016	10/31/16 10:02	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6J0806	10/31/2016	10/31/16 11:28	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	5.6	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 19:13	
C23-C36	5.7	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 19:13	
Surrogate: p-Terphenyl	92.0 %		18 - 130		B6J0722	10/26/2016	10/26/16 19:13	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-2-5.0-5.5

Lab ID: 1603733-31

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:23	
<i>Surrogate: Decachlorobiphenyl</i>	<i>63.0 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 16:23</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>63.7 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 16:23</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-2-9.5-10.0

Lab ID: 1603733-32

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6J0810	10/29/2016	10/31/16 10:06	
Arsenic	5.1	1.0	0.70	1	B6J0810	10/29/2016	10/31/16 10:06	
Barium	32	1.0	0.10	1	B6J0810	10/29/2016	10/31/16 10:06	
Beryllium	0.10	1.0	0.04	1	B6J0810	10/29/2016	10/31/16 10:06	J
Cadmium	ND	1.0	0.09	1	B6J0810	10/29/2016	10/31/16 10:06	
Chromium	3.4	1.0	0.12	1	B6J0810	10/29/2016	10/31/16 10:06	
Cobalt	1.8	1.0	0.10	1	B6J0810	10/29/2016	10/31/16 10:06	
Copper	4.4	2.0	0.11	1	B6J0810	10/29/2016	10/31/16 10:06	
Lead	1.0	1.0	0.11	1	B6J0810	10/29/2016	10/31/16 10:06	
Molybdenum	0.90	1.0	0.13	1	B6J0810	10/29/2016	10/31/16 10:06	J
Nickel	3.6	1.0	0.10	1	B6J0810	10/29/2016	10/31/16 10:06	
Selenium	ND	1.0	0.88	1	B6J0810	10/29/2016	10/31/16 10:06	
Silver	ND	1.0	0.04	1	B6J0810	10/29/2016	10/31/16 10:06	
Thallium	ND	1.0	0.42	1	B6J0810	10/29/2016	10/31/16 10:06	
Vanadium	27	1.0	0.19	1	B6J0810	10/29/2016	10/31/16 10:06	
Zinc	6.8	1.0	0.18	1	B6J0810	10/29/2016	10/31/16 10:06	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.02	1	B6J0806	10/31/2016	10/31/16 11:38	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	2.5	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 19:31	
C23-C36	2.5	1.0	1.0	1	B6J0722	10/26/2016	10/26/16 19:31	
Surrogate: <i>p</i> -Terphenyl	77.4 %		18 - 130		B6J0722	10/26/2016	10/26/16 19:31	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-2-9.5-10.0

Lab ID: 1603733-32

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1221	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1232	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1242	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1248	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1254	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1260	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1262	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
Aroclor 1268	ND	16	1.5	1	B6J0729	10/26/2016	10/27/16 16:40	
<i>Surrogate: Decachlorobiphenyl</i>	<i>67.7 %</i>		<i>26 - 137</i>		B6J0729	10/26/2016	<i>10/27/16 16:40</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>71.0 %</i>		<i>28 - 102</i>		B6J0729	10/26/2016	<i>10/27/16 16:40</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID EB-HL-10-22-16

Lab ID: 1603733-33

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.010	0.0021	1	B6J0751	10/27/2016	10/28/16 12:28	
Arsenic	ND	0.010	0.0067	1	B6J0751	10/27/2016	10/28/16 12:28	
Barium	ND	0.0030	0.0008	1	B6J0751	10/27/2016	10/28/16 12:28	
Beryllium	ND	0.0030	0.0004	1	B6J0751	10/27/2016	10/28/16 12:28	
Cadmium	ND	0.0030	0.0002	1	B6J0751	10/27/2016	10/28/16 12:28	
Chromium	ND	0.0030	0.0016	1	B6J0751	10/27/2016	10/28/16 12:28	
Cobalt	ND	0.0030	0.0007	1	B6J0751	10/27/2016	10/28/16 12:28	
Copper	0.0030	0.0090	0.0023	1	B6J0751	10/27/2016	10/28/16 12:28	J
Lead	ND	0.0050	0.0028	1	B6J0751	10/27/2016	10/28/16 12:28	
Molybdenum	ND	0.0050	0.0007	1	B6J0751	10/27/2016	10/28/16 12:28	
Nickel	ND	0.0050	0.0024	1	B6J0751	10/27/2016	10/28/16 12:28	
Selenium	0.0046	0.010	0.0034	1	B6J0751	10/27/2016	10/28/16 12:28	J
Silver	ND	0.0030	0.0006	1	B6J0751	10/27/2016	10/28/16 12:28	
Thallium	ND	0.015	0.0026	1	B6J0751	10/27/2016	10/28/16 12:28	
Vanadium	ND	0.0030	0.0011	1	B6J0751	10/27/2016	10/28/16 12:28	
Zinc	0.0042	0.025	0.0021	1	B6J0751	10/27/2016	10/28/16 12:28	J

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: SB

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	0.13	1	B6J0754	10/27/2016	10/27/16 14:01	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	ND	0.05	0.05	1	B6J0774	10/27/2016	10/27/16 17:47	
C23-C36	ND	0.05	0.05	1	B6J0774	10/27/2016	10/27/16 17:47	
<i>Surrogate: p-Terphenyl</i>	<i>39.0 %</i>		<i>20 - 150</i>		B6J0774	10/27/2016	<i>10/27/16 17:47</i>	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID EB-HL-10-22-16

Lab ID: 1603733-33

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1221	ND	1.0	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1232	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1242	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1248	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1254	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1260	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1262	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
Aroclor 1268	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:13	
<i>Surrogate: Decachlorobiphenyl</i>	<i>38.0 %</i>		<i>7 - 127</i>		B6J0756	10/27/2016	<i>10/28/16 13:13</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>68.6 %</i>		<i>14 - 122</i>		B6J0756	10/27/2016	<i>10/28/16 13:13</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL1-2-9.5-10.0 Duplicate

Lab ID: 1603733-34

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6K0229	11/05/2016	11/07/16 12:00	
Arsenic	1.2	1.0	0.70	1	B6K0229	11/05/2016	11/07/16 12:00	
Barium	39	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:00	
Beryllium	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 12:00	
Cadmium	0.11	1.0	0.09	1	B6K0229	11/05/2016	11/07/16 12:00	J
Chromium	8.6	1.0	0.12	1	B6K0229	11/05/2016	11/07/16 12:00	
Cobalt	4.1	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:00	
Copper	5.1	2.0	0.11	1	B6K0229	11/05/2016	11/07/16 12:00	
Lead	1.4	1.0	0.11	1	B6K0229	11/05/2016	11/07/16 12:00	
Molybdenum	ND	1.0	0.13	1	B6K0229	11/05/2016	11/07/16 12:00	
Nickel	6.5	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:00	
Selenium	ND	1.0	0.88	1	B6K0229	11/05/2016	11/07/16 12:00	
Silver	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 12:00	
Thallium	ND	1.0	0.42	1	B6K0229	11/05/2016	11/07/16 12:00	
Vanadium	19	1.0	0.19	1	B6K0229	11/05/2016	11/07/16 12:00	
Zinc	16	1.0	0.18	1	B6K0229	11/05/2016	11/07/16 12:00	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.05	0.10	0.02	1	B6K0224	11/05/2016	11/07/16 08:31	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.6	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:21	
C23-C36	1.3	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:21	
Surrogate: <i>p</i> -Terphenyl	64.7 %		18 - 130		B6K0069	11/01/2016	11/01/16 20:21	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL1-2-9.5-10.0 Duplicate

Lab ID: 1603733-34

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1221	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1232	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1242	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1248	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1254	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1260	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1262	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
Aroclor 1268	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 13:57	
<i>Surrogate: Decachlorobiphenyl</i>	<i>101 %</i>		<i>26 - 137</i>		B6K0109	11/02/2016	<i>11/03/16 13:57</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>107 %</i>		<i>28 - 102</i>		B6K0109	11/02/2016	<i>11/03/16 13:57</i>	S12



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL3-1-5.0-5.5 Duplicate
Lab ID: 1603733-35

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6K0229	11/05/2016	11/07/16 12:06	
Arsenic	1.3	1.0	0.70	1	B6K0229	11/05/2016	11/07/16 12:06	
Barium	54	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:06	
Beryllium	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 12:06	
Cadmium	ND	1.0	0.09	1	B6K0229	11/05/2016	11/07/16 12:06	
Chromium	13	1.0	0.12	1	B6K0229	11/05/2016	11/07/16 12:06	
Cobalt	2.9	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:06	
Copper	5.7	2.0	0.11	1	B6K0229	11/05/2016	11/07/16 12:06	
Lead	1.7	1.0	0.11	1	B6K0229	11/05/2016	11/07/16 12:06	
Molybdenum	ND	1.0	0.13	1	B6K0229	11/05/2016	11/07/16 12:06	
Nickel	7.2	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:06	
Selenium	ND	1.0	0.88	1	B6K0229	11/05/2016	11/07/16 12:06	
Silver	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 12:06	
Thallium	ND	1.0	0.42	1	B6K0229	11/05/2016	11/07/16 12:06	
Vanadium	19	1.0	0.19	1	B6K0229	11/05/2016	11/07/16 12:06	
Zinc	18	1.0	0.18	1	B6K0229	11/05/2016	11/07/16 12:06	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.03	0.10	0.02	1	B6K0224	11/05/2016	11/07/16 08:37	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.5	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:38	
C23-C36	1.3	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:38	
Surrogate: <i>p</i> -Terphenyl	57.5 %		18 - 130		B6K0069	11/01/2016	11/01/16 20:38	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL3-1-5.0-5.5 Duplicate

Lab ID: 1603733-35

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1221	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1232	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1242	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1248	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1254	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1260	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1262	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
Aroclor 1268	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:15	
<i>Surrogate: Decachlorobiphenyl</i>	<i>90.7 %</i>		<i>26 - 137</i>		B6K0109	11/02/2016	<i>11/03/16 14:15</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>100 %</i>		<i>28 - 102</i>		B6K0109	11/02/2016	<i>11/03/16 14:15</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID HL4-2-5.0-5.5 Duplicate
Lab ID: 1603733-36

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B6K0229	11/05/2016	11/07/16 12:09	
Arsenic	3.0	1.0	0.70	1	B6K0229	11/05/2016	11/07/16 12:09	
Barium	61	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:09	
Beryllium	0.06	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 12:09	J
Cadmium	0.18	1.0	0.09	1	B6K0229	11/05/2016	11/07/16 12:09	J
Chromium	12	1.0	0.12	1	B6K0229	11/05/2016	11/07/16 12:09	
Cobalt	3.1	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:09	
Copper	5.2	2.0	0.11	1	B6K0229	11/05/2016	11/07/16 12:09	
Lead	1.8	1.0	0.11	1	B6K0229	11/05/2016	11/07/16 12:09	
Molybdenum	ND	1.0	0.13	1	B6K0229	11/05/2016	11/07/16 12:09	
Nickel	9.1	1.0	0.10	1	B6K0229	11/05/2016	11/07/16 12:09	
Selenium	ND	1.0	0.88	1	B6K0229	11/05/2016	11/07/16 12:09	
Silver	ND	1.0	0.04	1	B6K0229	11/05/2016	11/07/16 12:09	
Thallium	ND	1.0	0.42	1	B6K0229	11/05/2016	11/07/16 12:09	
Vanadium	30	1.0	0.19	1	B6K0229	11/05/2016	11/07/16 12:09	
Zinc	20	1.0	0.18	1	B6K0229	11/05/2016	11/07/16 12:09	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.02	0.10	0.02	1	B6K0224	11/05/2016	11/07/16 08:39	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	1.0	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:55	
C23-C36	ND	1.0	1.0	1	B6K0069	11/01/2016	11/01/16 20:55	
Surrogate: <i>p</i> -Terphenyl	35.6 %		18 - 130		B6K0069	11/01/2016	11/01/16 20:55	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID HL4-2-5.0-5.5 Duplicate

Lab ID: 1603733-36

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1221	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1232	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1242	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1248	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1254	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1260	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1262	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
Aroclor 1268	ND	16	1.5	1	B6K0109	11/02/2016	11/03/16 14:33	
<i>Surrogate: Decachlorobiphenyl</i>	<i>85.1 %</i>		<i>26 - 137</i>		B6K0109	11/02/2016	<i>11/03/16 14:33</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>95.6 %</i>		<i>28 - 102</i>		B6K0109	11/02/2016	<i>11/03/16 14:33</i>	



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Reported : 11/09/2016

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W

Blank (B6J0751-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	ND	0.010			NR				
Arsenic	ND	0.010			NR				
Barium	ND	0.0030			NR				
Beryllium	ND	0.0030			NR				
Cadmium	ND	0.0030			NR				
Chromium	ND	0.0030			NR				
Cobalt	ND	0.0030			NR				
Copper	ND	0.0090			NR				
Lead	ND	0.0050			NR				
Molybdenum	ND	0.0050			NR				
Nickel	ND	0.0050			NR				
Selenium	0.004270	0.010			NR				J
Silver	ND	0.0030			NR				
Thallium	ND	0.015			NR				
Vanadium	ND	0.0030			NR				
Zinc	ND	0.025			NR				

LCS (B6J0751-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	0.898377	0.010	1.00000		89.8	80 - 120			
Arsenic	0.895492	0.010	1.00000		89.5	80 - 120			
Barium	0.964396	0.0030	1.00000		96.4	80 - 120			
Beryllium	0.961408	0.0030	1.00000		96.1	80 - 120			
Cadmium	0.928815	0.0030	1.00000		92.9	80 - 120			
Chromium	0.965730	0.0030	1.00000		96.6	80 - 120			
Cobalt	0.945595	0.0030	1.00000		94.6	80 - 120			
Copper	1.00626	0.0090	1.00000		101	80 - 120			
Lead	0.939372	0.0050	1.00000		93.9	80 - 120			
Molybdenum	0.938843	0.0050	1.00000		93.9	80 - 120			
Nickel	0.932543	0.0050	1.00000		93.3	80 - 120			
Selenium	0.865757	0.010	1.00000		86.6	80 - 120			
Silver	0.970209	0.0030	1.00000		97.0	80 - 120			
Thallium	0.949487	0.015	1.00000		94.9	80 - 120			
Vanadium	0.956655	0.0030	1.00000		95.7	80 - 120			
Zinc	0.905008	0.025	1.00000		90.5	80 - 120			

Duplicate (B6J0751-DUP1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	0.028335	0.010		0.028077	NR	0.915	20		
Arsenic	0.031794	0.010		0.030741	NR	3.37	20		
Barium	0.046911	0.0030		0.047026	NR	0.243	20		
Beryllium	0.000619	0.0030		0.000723	NR	15.4	20	J	



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Reported : 11/09/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W (continued)

Duplicate (B6J0751-DUP1) - Continued

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Cadmium	0.008692	0.0030		0.008895	NR		2.31	20	
Chromium	0.226469	0.0030		0.229568	NR		1.36	20	
Cobalt	0.009954	0.0030		0.010281	NR		3.24	20	
Copper	0.066991	0.0090		0.068634	NR		2.42	20	
Lead	ND	0.0050		ND	NR			20	
Molybdenum	0.135758	0.0050		0.138068	NR		1.69	20	
Nickel	0.867118	0.0050		0.876803	NR		1.11	20	
Selenium	0.007675	0.010		4.6609E-3	NR		48.9	20	R, J
Silver	ND	0.0030		ND	NR			20	
Thallium	ND	0.015		ND	NR			20	
Vanadium	0.178865	0.0030		0.181667	NR		1.55	20	
Zinc	0.655494	0.025		0.663915	NR		1.28	20	

Matrix Spike (B6J0751-MS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	2.24067	0.010	2.50000	0.028077	88.5	76 - 118		
Arsenic	2.27050	0.010	2.50000	0.030741	89.6	74 - 123		
Barium	2.38965	0.0030	2.50000	0.047026	93.7	76 - 117		
Beryllium	2.33196	0.0030	2.50000	0.000723	93.2	84 - 114		
Cadmium	2.25071	0.0030	2.50000	0.008895	89.7	73 - 115		
Chromium	2.53643	0.0030	2.50000	0.229568	92.3	76 - 117		
Cobalt	2.34222	0.0030	2.50000	0.010281	93.3	78 - 113		
Copper	2.66179	0.0090	2.50000	0.068634	104	70 - 132		
Lead	2.29533	0.0050	2.50000	ND	91.8	78 - 109		
Molybdenum	2.45700	0.0050	2.50000	0.138068	92.8	84 - 111		
Nickel	3.16475	0.0050	2.50000	0.876803	91.5	66 - 125		
Selenium	2.08360	0.010	2.50000	4.6609E-3	83.2	76 - 117		
Silver	2.38309	0.0030	2.50000	ND	95.3	64 - 133		
Thallium	2.19292	0.015	2.50000	ND	87.7	63 - 118		
Vanadium	2.54727	0.0030	2.50000	0.181667	94.6	76 - 119		
Zinc	3.00323	0.025	2.50000	0.663915	93.6	56 - 131		

Matrix Spike Dup (B6J0751-MSD1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Antimony	2.06647	0.010	2.50000	0.028077	81.5	76 - 118	8.09	20
Arsenic	2.10355	0.010	2.50000	0.030741	82.9	74 - 123	7.63	20
Barium	2.21869	0.0030	2.50000	0.047026	86.9	76 - 117	7.42	20
Beryllium	2.14720	0.0030	2.50000	0.000723	85.9	84 - 114	8.25	20
Cadmium	2.08865	0.0030	2.50000	0.008895	83.2	73 - 115	7.47	20
Chromium	2.35172	0.0030	2.50000	0.229568	84.9	76 - 117	7.56	20
Cobalt	2.17633	0.0030	2.50000	0.010281	86.6	78 - 113	7.34	20
Copper	2.46898	0.0090	2.50000	0.068634	96.0	70 - 132	7.52	20
Lead	2.12708	0.0050	2.50000	ND	85.1	78 - 109	7.61	20
Molybdenum	2.27457	0.0050	2.50000	0.138068	85.5	84 - 111	7.71	20



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0751 - EPA 3010A_W (continued)

Matrix Spike Dup (B6J0751-MSD1) - Continued

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Nickel	2.92664	0.0050	2.50000	0.876803	82.0	66 - 125	7.82	20	
Selenium	1.94120	0.010	2.50000	4.6609E-3	77.5	76 - 117	7.08	20	
Silver	2.21274	0.0030	2.50000	ND	88.5	64 - 133	7.41	20	
Thallium	2.02811	0.015	2.50000	ND	81.1	63 - 118	7.81	20	
Vanadium	2.35250	0.0030	2.50000	0.181667	86.8	76 - 119	7.95	20	
Zinc	2.78904	0.025	2.50000	0.663915	85.0	56 - 131	7.40	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0808 - EPA 3050B_S

Blank (B6J0808-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	0.715766	1.0			NR				J
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	0.148516	1.0			NR				J
Cobalt	ND	1.0			NR				
Copper	0.213131	2.0			NR				J
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	0.103914	1.0			NR				J
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	1.63640	1.0			NR				

LCS (B6J0808-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	47.0055	2.0	50.0000		94.0	80 - 120			
Arsenic	46.2299	1.0	50.0000		92.5	80 - 120			
Barium	49.0585	1.0	50.0000		98.1	80 - 120			
Beryllium	46.3313	1.0	50.0000		92.7	80 - 120			
Cadmium	46.7405	1.0	50.0000		93.5	80 - 120			
Chromium	49.7086	1.0	50.0000		99.4	80 - 120			
Cobalt	46.6029	1.0	50.0000		93.2	80 - 120			
Copper	51.6786	2.0	50.0000		103	80 - 120			
Lead	48.1984	1.0	50.0000		96.4	80 - 120			
Molybdenum	46.2862	1.0	50.0000		92.6	80 - 120			
Nickel	47.5051	1.0	50.0000		95.0	80 - 120			
Selenium	43.7640	1.0	50.0000		87.5	80 - 120			
Silver	47.6860	1.0	50.0000		95.4	80 - 120			
Thallium	47.2851	1.0	50.0000		94.6	80 - 120			
Vanadium	50.8736	1.0	50.0000		102	80 - 120			
Zinc	46.0379	1.0	50.0000		92.1	80 - 120			B

Duplicate (B6J0808-DUP1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0		ND	NR			20	
Arsenic	1.49434	1.0		1.84338	NR		20.9	20	R
Barium	51.0307	1.0		61.1594	NR		18.1	20	
Beryllium	0.348416	1.0		0.347732	NR		0.197	20	J
Cadmium	ND	1.0		ND	NR			20	
Chromium	11.0312	1.0		11.2821	NR		2.25	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0808 - EPA 3050B_S (continued)

Duplicate (B6J0808-DUP1) - Continued

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Cobalt	3.29353	1.0		4.01224	NR		19.7	20	
Copper	4.92753	2.0		5.79583	NR		16.2	20	
Lead	1.47104	1.0		2.39910	NR		48.0	20	R
Molybdenum	ND	1.0		ND	NR			20	
Nickel	6.11027	1.0		6.44015	NR		5.26	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	22.8546	1.0		26.2120	NR		13.7	20	
Zinc	15.0284	1.0		17.4372	NR		14.8	20	B

Matrix Spike (B6J0808-MS1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	51.9246	2.0	125.000	ND	41.5	34 - 103			
Arsenic	71.7114	1.0	125.000	1.84338	55.9	59 - 103			M1
Barium	116.356	1.0	125.000	61.1594	44.2	30 - 134			
Beryllium	69.9650	1.0	125.000	0.347732	55.7	62 - 105			M1
Cadmium	67.3007	1.0	125.000	ND	53.8	53 - 102			
Chromium	84.4678	1.0	125.000	11.2821	58.5	51 - 111			
Cobalt	71.3116	1.0	125.000	4.01224	53.8	55 - 105			M1
Copper	82.5947	2.0	125.000	5.79583	61.4	53 - 126			
Lead	72.2782	1.0	125.000	2.39910	55.9	34 - 129			
Molybdenum	67.2826	1.0	125.000	ND	53.8	57 - 105			M1
Nickel	75.2968	1.0	125.000	6.44015	55.1	49 - 109			
Selenium	66.1776	1.0	125.000	ND	52.9	57 - 99			M1
Silver	73.1002	1.0	125.000	ND	58.5	64 - 105			M1
Thallium	67.0788	1.0	125.000	ND	53.7	46 - 105			
Vanadium	100.178	1.0	125.000	26.2120	59.2	60 - 109			M1
Zinc	82.7274	1.0	125.000	17.4372	52.2	29 - 122			B

Matrix Spike Dup (B6J0808-MSD1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	53.1383	2.0	125.000	ND	42.5	34 - 103	2.31	20	
Arsenic	72.1617	1.0	125.000	1.84338	56.3	59 - 103	0.626	20	M1
Barium	116.370	1.0	125.000	61.1594	44.2	30 - 134	0.0120	20	
Beryllium	71.4394	1.0	125.000	0.347732	56.9	62 - 105	2.09	20	M1
Cadmium	67.9393	1.0	125.000	ND	54.4	53 - 102	0.944	20	
Chromium	84.7134	1.0	125.000	11.2821	58.7	51 - 111	0.290	20	
Cobalt	71.4990	1.0	125.000	4.01224	54.0	55 - 105	0.263	20	M1
Copper	83.3634	2.0	125.000	5.79583	62.1	53 - 126	0.926	20	
Lead	73.6518	1.0	125.000	2.39910	57.0	34 - 129	1.88	20	
Molybdenum	67.8390	1.0	125.000	ND	54.3	57 - 105	0.824	20	M1
Nickel	75.9574	1.0	125.000	6.44015	55.6	49 - 109	0.873	20	
Selenium	66.6555	1.0	125.000	ND	53.3	57 - 99	0.720	20	M1



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0808 - EPA 3050B_S (continued)

Matrix Spike Dup (B6J0808-MSD1) - Continued

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Silver	74.1005	1.0	125.000	ND	59.3	64 - 105	1.36	20	M1
Thallium	68.5890	1.0	125.000	ND	54.9	46 - 105	2.23	20	
Vanadium	99.9984	1.0	125.000	26.2120	59.0	60 - 109	0.179	20	M1
Zinc	82.9624	1.0	125.000	17.4372	52.4	29 - 122	0.284	20	B



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0809 - EPA 3050B_S

Blank (B6J0809-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	0.271237	1.0			NR				J

LCS (B6J0809-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	47.4308	2.0	50.0000	94.9	80 - 120
Arsenic	46.4075	1.0	50.0000	92.8	80 - 120
Barium	49.3256	1.0	50.0000	98.7	80 - 120
Beryllium	46.4932	1.0	50.0000	93.0	80 - 120
Cadmium	46.6306	1.0	50.0000	93.3	80 - 120
Chromium	49.8878	1.0	50.0000	99.8	80 - 120
Cobalt	46.6703	1.0	50.0000	93.3	80 - 120
Copper	52.1803	2.0	50.0000	104	80 - 120
Lead	47.7998	1.0	50.0000	95.6	80 - 120
Molybdenum	46.6900	1.0	50.0000	93.4	80 - 120
Nickel	47.6699	1.0	50.0000	95.3	80 - 120
Selenium	44.0319	1.0	50.0000	88.1	80 - 120
Silver	48.0660	1.0	50.0000	96.1	80 - 120
Thallium	47.0800	1.0	50.0000	94.2	80 - 120
Vanadium	51.0108	1.0	50.0000	102	80 - 120
Zinc	45.8661	1.0	50.0000	91.7	80 - 120

Duplicate (B6J0809-DUP1)

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0	ND	NR		20	
Arsenic	1.62018	1.0	1.67474	NR	3.31	20	
Barium	18.5943	1.0	16.7065	NR	10.7	20	
Beryllium	0.084147	1.0	0.085147	NR	1.18	20	J
Cadmium	ND	1.0	ND	NR		20	
Chromium	3.43829	1.0	3.20248	NR	7.10	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0809 - EPA 3050B_S (continued)

Duplicate (B6J0809-DUP1) - Continued

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Cobalt	1.94942	1.0		1.72482	NR		12.2	20	
Copper	2.96590	2.0		2.62527	NR		12.2	20	
Lead	0.854012	1.0		0.723458	NR		16.6	20	J
Molybdenum	1.13165	1.0		1.08426	NR		4.28	20	
Nickel	2.25474	1.0		1.94521	NR		14.7	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	15.4434	1.0		13.4687	NR		13.7	20	
Zinc	6.86557	1.0		6.41294	NR		6.82	20	

Matrix Spike (B6J0809-MS1)

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	78.6094	2.0	125.000	ND	62.9	34 - 103			
Arsenic	85.9384	1.0	125.000	1.67474	67.4	59 - 103			
Barium	104.895	1.0	125.000	16.7065	70.6	30 - 134			
Beryllium	85.0730	1.0	125.000	0.085147	68.0	62 - 105			
Cadmium	82.8199	1.0	125.000	ND	66.3	53 - 102			
Chromium	91.5498	1.0	125.000	3.20248	70.7	51 - 111			
Cobalt	85.2162	1.0	125.000	1.72482	66.8	55 - 105			
Copper	94.9256	2.0	125.000	2.62527	73.8	53 - 126			
Lead	86.2749	1.0	125.000	0.723458	68.4	34 - 129			
Molybdenum	85.2374	1.0	125.000	1.08426	67.3	57 - 105			
Nickel	87.8772	1.0	125.000	1.94521	68.7	49 - 109			
Selenium	79.1958	1.0	125.000	ND	63.4	57 - 99			
Silver	87.5424	1.0	125.000	ND	70.0	64 - 105			
Thallium	82.1352	1.0	125.000	ND	65.7	46 - 105			
Vanadium	106.476	1.0	125.000	13.4687	74.4	60 - 109			
Zinc	89.3872	1.0	125.000	6.41294	66.4	29 - 122			

Matrix Spike Dup (B6J0809-MSD1)

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	81.9360	2.0	125.000	ND	65.5	34 - 103	4.14	20	
Arsenic	90.3044	1.0	125.000	1.67474	70.9	59 - 103	4.95	20	
Barium	107.954	1.0	125.000	16.7065	73.0	30 - 134	2.87	20	
Beryllium	87.0152	1.0	125.000	0.085147	69.5	62 - 105	2.26	20	
Cadmium	85.6661	1.0	125.000	ND	68.5	53 - 102	3.38	20	
Chromium	95.0768	1.0	125.000	3.20248	73.5	51 - 111	3.78	20	
Cobalt	88.7077	1.0	125.000	1.72482	69.6	55 - 105	4.02	20	
Copper	99.6701	2.0	125.000	2.62527	77.6	53 - 126	4.88	20	
Lead	90.1022	1.0	125.000	0.723458	71.5	34 - 129	4.34	20	
Molybdenum	89.0243	1.0	125.000	1.08426	70.4	57 - 105	4.35	20	
Nickel	91.5560	1.0	125.000	1.94521	71.7	49 - 109	4.10	20	
Selenium	82.7808	1.0	125.000	ND	66.2	57 - 99	4.43	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0809 - EPA 3050B_S (continued)

Matrix Spike Dup (B6J0809-MSD1) - Continued

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Silver	91.0765	1.0	125.000	ND	72.9	64 - 105	3.96	20	
Thallium	85.1811	1.0	125.000	ND	68.1	46 - 105	3.64	20	
Vanadium	112.568	1.0	125.000	13.4687	79.3	60 - 109	5.56	20	
Zinc	93.0898	1.0	125.000	6.41294	69.3	29 - 122	4.06	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0810 - EPA 3050B_S

Blank (B6J0810-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	0.190986	2.0			NR				J
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	0.317453	1.0			NR				J

LCS (B6J0810-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	47.0552	2.0	50.0000	94.1	80 - 120
Arsenic	46.0384	1.0	50.0000	92.1	80 - 120
Barium	48.5844	1.0	50.0000	97.2	80 - 120
Beryllium	45.7348	1.0	50.0000	91.5	80 - 120
Cadmium	46.2598	1.0	50.0000	92.5	80 - 120
Chromium	49.1777	1.0	50.0000	98.4	80 - 120
Cobalt	46.0607	1.0	50.0000	92.1	80 - 120
Copper	52.0438	2.0	50.0000	104	80 - 120
Lead	48.0683	1.0	50.0000	96.1	80 - 120
Molybdenum	45.9048	1.0	50.0000	91.8	80 - 120
Nickel	47.0545	1.0	50.0000	94.1	80 - 120
Selenium	43.3455	1.0	50.0000	86.7	80 - 120
Silver	46.7568	1.0	50.0000	93.5	80 - 120
Thallium	47.1659	1.0	50.0000	94.3	80 - 120
Vanadium	49.6701	1.0	50.0000	99.3	80 - 120
Zinc	45.4563	1.0	50.0000	90.9	80 - 120

Duplicate (B6J0810-DUP1)

Source: 1603733-31

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	ND	2.0	ND	NR		20	
Arsenic	2.61573	1.0	2.40720	NR	8.30	20	
Barium	66.6742	1.0	54.1157	NR	20.8	20	R
Beryllium	0.297909	1.0	0.277161	NR	7.22	20	J
Cadmium	ND	1.0	ND	NR		20	
Chromium	10.7018	1.0	10.1471	NR	5.32	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0810 - EPA 3050B_S (continued)

Duplicate (B6J0810-DUP1) - Continued

Source: 1603733-31

Prepared: 10/29/2016 Analyzed: 10/31/2016

Cobalt	3.90445	1.0		3.52618	NR		10.2	20	
Copper	4.80569	2.0		4.45357	NR		7.61	20	
Lead	1.91713	1.0		1.83999	NR		4.11	20	
Molybdenum	ND	1.0		ND	NR			20	
Nickel	9.03112	1.0		8.11732	NR		10.7	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	28.7140	1.0		26.4721	NR		8.12	20	
Zinc	18.6764	1.0		17.0060	NR		9.36	20	

Matrix Spike (B6J0810-MS1)

Source: 1603733-31

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	53.7447	2.0	125.000	ND	43.0	34 - 103			
Arsenic	76.7914	1.0	125.000	2.40720	59.5	59 - 103			
Barium	133.704	1.0	125.000	54.1157	63.7	30 - 134			
Beryllium	74.5320	1.0	125.000	0.277161	59.4	62 - 105			M1
Cadmium	71.1844	1.0	125.000	ND	56.9	53 - 102			
Chromium	86.6479	1.0	125.000	10.1471	61.2	51 - 111			
Cobalt	74.9647	1.0	125.000	3.52618	57.2	55 - 105			
Copper	86.9664	2.0	125.000	4.45357	66.0	53 - 126			
Lead	77.0495	1.0	125.000	1.83999	60.2	34 - 129			
Molybdenum	71.5297	1.0	125.000	ND	57.2	57 - 105			
Nickel	81.4366	1.0	125.000	8.11732	58.7	49 - 109			
Selenium	69.6697	1.0	125.000	ND	55.7	57 - 99			M1
Silver	78.5290	1.0	125.000	ND	62.8	64 - 105			M1
Thallium	72.2084	1.0	125.000	ND	57.8	46 - 105			
Vanadium	104.096	1.0	125.000	26.4721	62.1	60 - 109			
Zinc	88.6659	1.0	125.000	17.0060	57.3	29 - 122			

Matrix Spike Dup (B6J0810-MSD1)

Source: 1603733-31

Prepared: 10/29/2016 Analyzed: 10/31/2016

Antimony	55.5144	2.0	125.000	ND	44.4	34 - 103	3.24	20	
Arsenic	78.4984	1.0	125.000	2.40720	60.9	59 - 103	2.20	20	
Barium	128.908	1.0	125.000	54.1157	59.8	30 - 134	3.65	20	
Beryllium	75.9755	1.0	125.000	0.277161	60.6	62 - 105	1.92	20	M1
Cadmium	71.7475	1.0	125.000	ND	57.4	53 - 102	0.788	20	
Chromium	88.6492	1.0	125.000	10.1471	62.8	51 - 111	2.28	20	
Cobalt	76.2192	1.0	125.000	3.52618	58.2	55 - 105	1.66	20	
Copper	89.3748	2.0	125.000	4.45357	67.9	53 - 126	2.73	20	
Lead	78.5746	1.0	125.000	1.83999	61.4	34 - 129	1.96	20	
Molybdenum	72.8054	1.0	125.000	ND	58.2	57 - 105	1.77	20	
Nickel	83.3624	1.0	125.000	8.11732	60.2	49 - 109	2.34	20	
Selenium	71.1634	1.0	125.000	ND	56.9	57 - 99	2.12	20	M1



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0810 - EPA 3050B_S (continued)

Matrix Spike Dup (B6J0810-MSD1) - Continued

Source: 1603733-31

Prepared: 10/29/2016 Analyzed: 10/31/2016

Silver	78.7470	1.0	125.000	ND	63.0	64 - 105	0.277	20	M1
Thallium	73.0734	1.0	125.000	ND	58.5	46 - 105	1.19	20	
Vanadium	106.596	1.0	125.000	26.4721	64.1	60 - 109	2.37	20	
Zinc	90.0504	1.0	125.000	17.0060	58.4	29 - 122	1.55	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0871 - EPA 3050B_S

Blank (B6J0871-BLK1)

Prepared: 10/31/2016 Analyzed: 11/1/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	0.291914	1.0			NR				J
Beryllium	0.229135	1.0			NR				J
Cadmium	0.233559	1.0			NR				J
Chromium	0.362024	1.0			NR				J
Cobalt	0.218879	1.0			NR				J
Copper	0.299956	2.0			NR				J
Lead	0.278117	1.0			NR				J
Molybdenum	0.263455	1.0			NR				J
Nickel	0.236989	1.0			NR				J
Selenium	ND	1.0			NR				
Silver	0.238450	1.0			NR				J
Thallium	ND	1.0			NR				
Vanadium	0.299230	1.0			NR				J
Zinc	0.430804	1.0			NR				J

LCS (B6J0871-BS1)

Prepared: 10/31/2016 Analyzed: 11/1/2016

Antimony	47.7581	2.0	50.0000		95.5	80 - 120
Arsenic	46.6326	1.0	50.0000		93.3	80 - 120
Barium	50.8012	1.0	50.0000		102	80 - 120
Beryllium	46.6304	1.0	50.0000		93.3	80 - 120
Cadmium	47.7692	1.0	50.0000		95.5	80 - 120
Chromium	51.3173	1.0	50.0000		103	80 - 120
Cobalt	48.4452	1.0	50.0000		96.9	80 - 120
Copper	54.0970	2.0	50.0000		108	80 - 120
Lead	49.0748	1.0	50.0000		98.1	80 - 120
Molybdenum	47.7409	1.0	50.0000		95.5	80 - 120
Nickel	48.7910	1.0	50.0000		97.6	80 - 120
Selenium	44.3689	1.0	50.0000		88.7	80 - 120
Silver	48.2727	1.0	50.0000		96.5	80 - 120
Thallium	48.4752	1.0	50.0000		97.0	80 - 120
Vanadium	51.3160	1.0	50.0000		103	80 - 120
Zinc	47.0774	1.0	50.0000		94.2	80 - 120

Duplicate (B6J0871-DUP1)

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Antimony	ND	2.0		ND	NR			20	
Arsenic	5.44159	1.0		5.30522	NR		2.54	20	
Barium	124.612	1.0		131.600	NR		5.46	20	
Beryllium	0.359286	1.0		0.366655	NR		2.03	20	J
Cadmium	1.68050	1.0		1.38163	NR		19.5	20	
Chromium	20.3869	1.0		21.2656	NR		4.22	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0871 - EPA 3050B_S (continued)

Duplicate (B6J0871-DUP1) - Continued

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Cobalt	6.61434	1.0		5.34730	NR		21.2	20	R
Copper	28.3814	2.0		29.7465	NR		4.70	20	
Lead	137.490	1.0		149.954	NR		8.67	20	
Molybdenum	3.23053	1.0		3.18081	NR		1.55	20	
Nickel	29.5915	1.0		28.2781	NR		4.54	20	
Selenium	1.01931	1.0		1.36183	NR		28.8	20	R
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	23.8925	1.0		23.2770	NR		2.61	20	
Zinc	102.292	1.0		103.437	NR		1.11	20	

Matrix Spike (B6J0871-MS1)

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Antimony	64.8434	2.0	125.000	ND	51.9	34 - 103			
Arsenic	93.6682	1.0	125.000	5.30522	70.7	59 - 103			
Barium	228.768	1.0	125.000	131.600	77.7	30 - 134			
Beryllium	89.1784	1.0	125.000	0.366655	71.0	62 - 105			
Cadmium	83.5764	1.0	125.000	1.38163	65.8	53 - 102			
Chromium	116.372	1.0	125.000	21.2656	76.1	51 - 111			
Cobalt	89.3219	1.0	125.000	5.34730	67.2	55 - 105			
Copper	132.252	2.0	125.000	29.7465	82.0	53 - 126			
Lead	237.017	1.0	125.000	149.954	69.7	34 - 129			
Molybdenum	85.1912	1.0	125.000	3.18081	65.6	57 - 105			
Nickel	115.008	1.0	125.000	28.2781	69.4	49 - 109			
Selenium	87.2526	1.0	125.000	1.36183	68.7	57 - 99			
Silver	87.2126	1.0	125.000	ND	69.8	64 - 105			
Thallium	84.1948	1.0	125.000	ND	67.4	46 - 105			
Vanadium	117.321	1.0	125.000	23.2770	75.2	60 - 109			
Zinc	188.880	1.0	125.000	103.437	68.4	29 - 122			

Matrix Spike Dup (B6J0871-MSD1)

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Antimony	62.8692	2.0	125.000	ND	50.3	34 - 103	3.09	20	
Arsenic	90.8068	1.0	125.000	5.30522	68.4	59 - 103	3.10	20	
Barium	210.460	1.0	125.000	131.600	63.1	30 - 134	8.34	20	
Beryllium	86.9394	1.0	125.000	0.366655	69.3	62 - 105	2.54	20	
Cadmium	82.1684	1.0	125.000	1.38163	64.6	53 - 102	1.70	20	
Chromium	112.972	1.0	125.000	21.2656	73.4	51 - 111	2.97	20	
Cobalt	87.9027	1.0	125.000	5.34730	66.0	55 - 105	1.60	20	
Copper	128.594	2.0	125.000	29.7465	79.1	53 - 126	2.81	20	
Lead	232.743	1.0	125.000	149.954	66.2	34 - 129	1.82	20	
Molybdenum	83.5425	1.0	125.000	3.18081	64.3	57 - 105	1.95	20	
Nickel	114.205	1.0	125.000	28.2781	68.7	49 - 109	0.700	20	
Selenium	83.4440	1.0	125.000	1.36183	65.7	57 - 99	4.46	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0871 - EPA 3050B_S (continued)

Matrix Spike Dup (B6J0871-MSD1) - Continued

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Silver	85.5981	1.0	125.000	ND	68.5	64 - 105	1.87	20	
Thallium	82.2360	1.0	125.000	ND	65.8	46 - 105	2.35	20	
Vanadium	114.940	1.0	125.000	23.2770	73.3	60 - 109	2.05	20	
Zinc	188.998	1.0	125.000	103.437	68.4	29 - 122	0.0623	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S

Blank (B6K0229-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	1.10770	2.0			NR				J
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	0.363399	1.0			NR				J
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	0.559874	1.0			NR				J

LCS (B6K0229-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	45.5051	2.0	50.0000		91.0	80 - 120			
Arsenic	43.1219	1.0	50.0000		86.2	80 - 120			
Barium	49.1519	1.0	50.0000		98.3	80 - 120			
Beryllium	48.3302	1.0	50.0000		96.7	80 - 120			
Cadmium	46.4037	1.0	50.0000		92.8	80 - 120			
Chromium	45.8652	1.0	50.0000		91.7	80 - 120			
Cobalt	47.9771	1.0	50.0000		96.0	80 - 120			
Copper	52.2430	2.0	50.0000		104	80 - 120			
Lead	48.3115	1.0	50.0000		96.6	80 - 120			
Molybdenum	47.8710	1.0	50.0000		95.7	80 - 120			
Nickel	47.7532	1.0	50.0000		95.5	80 - 120			
Selenium	40.7099	1.0	50.0000		81.4	80 - 120			
Silver	49.0272	1.0	50.0000		98.1	80 - 120			
Thallium	46.9539	1.0	50.0000		93.9	80 - 120			
Vanadium	49.8605	1.0	50.0000		99.7	80 - 120			
Zinc	45.0477	1.0	50.0000		90.1	80 - 120			

Duplicate (B6K0229-DUP1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	ND	2.0		ND	NR			20	
Arsenic	2.80174	1.0		2.97962	NR		6.15	20	
Barium	56.6238	1.0		74.2821	NR		27.0	20	R
Beryllium	ND	1.0		ND	NR			20	
Cadmium	0.116497	1.0		0.131128	NR		11.8	20	J
Chromium	8.71996	1.0		10.3073	NR		16.7	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S (continued)

Duplicate (B6K0229-DUP1) - Continued

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Cobalt	2.94698	1.0		4.84730	NR		48.8	20	R
Copper	7.22094	2.0		8.04672	NR		10.8	20	
Lead	8.01555	1.0		6.91284	NR		14.8	20	
Molybdenum	ND	1.0		ND	NR			20	
Nickel	5.64630	1.0		6.72532	NR		17.4	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	27.2420	1.0		32.9912	NR		19.1	20	
Zinc	20.5682	1.0		23.4546	NR		13.1	20	

Matrix Spike (B6K0229-MS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	89.9490	2.0	125.000	ND	72.0	34 - 103			
Arsenic	98.5760	1.0	125.000	2.97962	76.5	59 - 103			
Barium	165.983	1.0	125.000	74.2821	73.4	30 - 134			
Beryllium	103.037	1.0	125.000	ND	82.4	62 - 105			
Cadmium	98.0460	1.0	125.000	0.131128	78.3	53 - 102			
Chromium	104.057	1.0	125.000	10.3073	75.0	51 - 111			
Cobalt	104.077	1.0	125.000	4.84730	79.4	55 - 105			
Copper	118.076	2.0	125.000	8.04672	88.0	53 - 126			
Lead	109.682	1.0	125.000	6.91284	82.2	34 - 129			
Molybdenum	102.498	1.0	125.000	ND	82.0	57 - 105			
Nickel	107.139	1.0	125.000	6.72532	80.3	49 - 109			
Selenium	90.3816	1.0	125.000	ND	72.3	57 - 99			
Silver	101.481	1.0	125.000	ND	81.2	64 - 105			
Thallium	97.7323	1.0	125.000	ND	78.2	46 - 105			
Vanadium	137.939	1.0	125.000	32.9912	84.0	60 - 109			
Zinc	118.404	1.0	250.000	23.4546	38.0	29 - 122			

Matrix Spike Dup (B6K0229-MSD1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Antimony	90.6710	2.0	125.000	ND	72.5	34 - 103	0.799	20	
Arsenic	99.5055	1.0	125.000	2.97962	77.2	59 - 103	0.939	20	
Barium	178.567	1.0	125.000	74.2821	83.4	30 - 134	7.30	20	
Beryllium	105.050	1.0	125.000	ND	84.0	62 - 105	1.93	20	
Cadmium	99.4111	1.0	125.000	0.131128	79.4	53 - 102	1.38	20	
Chromium	106.656	1.0	125.000	10.3073	77.1	51 - 111	2.47	20	
Cobalt	105.876	1.0	125.000	4.84730	80.8	55 - 105	1.71	20	
Copper	119.487	2.0	125.000	8.04672	89.2	53 - 126	1.19	20	
Lead	113.647	1.0	125.000	6.91284	85.4	34 - 129	3.55	20	
Molybdenum	104.168	1.0	125.000	ND	83.3	57 - 105	1.62	20	
Nickel	108.277	1.0	125.000	6.72532	81.2	49 - 109	1.06	20	
Selenium	91.2408	1.0	125.000	ND	73.0	57 - 99	0.946	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0229 - EPA 3050B_S (continued)

Matrix Spike Dup (B6K0229-MSD1) - Continued

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Silver	103.562	1.0	125.000	ND	82.8	64 - 105	2.03	20	
Thallium	99.4544	1.0	125.000	ND	79.6	46 - 105	1.75	20	
Vanadium	136.534	1.0	125.000	32.9912	82.8	60 - 109	1.02	20	
Zinc	122.836	1.0	250.000	23.4546	39.8	29 - 122	3.67	20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0754 - EPA 245.1/7470_W

Blank (B6J0754-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury ND 0.20 NR

LCS (B6J0754-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 11.0803 0.20 10.0000 111 80 - 120

Duplicate (B6J0754-DUP1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury ND 0.20 ND NR 20

Matrix Spike (B6J0754-MS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 9.85804 0.20 10.0000 ND 98.6 70 - 130

Matrix Spike Dup (B6J0754-MSD1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 9.67796 0.20 10.0000 ND 96.8 70 - 130 1.84 20

Post Spike (B6J0754-PS1)

Source: 1603718-01

Prepared: 10/27/2016 Analyzed: 10/27/2016

Mercury 5.08013 5.00000 0.012951 101 85 - 115



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0804 - EPA 7471_S

Blank (B6J0804-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury ND 0.10 NR

LCS (B6J0804-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.825317 0.10 0.833333 99.0 80 - 120

Duplicate (B6J0804-DUP1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.028595 0.10 0.032381 NR 12.4 20 J

Matrix Spike (B6J0804-MS1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.908104 0.10 0.833333 0.032381 105 70 - 130

Matrix Spike Dup (B6J0804-MSD1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.910807 0.10 0.833333 0.032381 105 70 - 130 0.297 20

Post Spike (B6J0804-PS1)

Source: 1603732-01

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.006176 5.00000E-3 0.000389 116 85 - 115 M1



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Reported : 11/09/2016

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0805 - EPA 7471_S

Blank (B6J0805-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury ND 0.10 NR

LCS (B6J0805-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.791577 0.10 0.833333 95.0 80 - 120

Duplicate (B6J0805-DUP1)

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.015640 0.10 0.019026 NR 19.5 20 J

Matrix Spike (B6J0805-MS1)

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.892482 0.10 0.833333 0.019026 105 70 - 130

Matrix Spike Dup (B6J0805-MSD1)

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.869351 0.10 0.833333 0.019026 102 70 - 130 2.63 20

Post Spike (B6J0805-PS1)

Source: 1603733-12

Prepared: 10/29/2016 Analyzed: 10/31/2016

Mercury 0.005956 5.00000E-3 0.000228 115 85 - 115



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Report To : John Nordenstam

Reported : 11/09/2016

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0806 - EPA 7471_S

Blank (B6J0806-BLK1)

Prepared: 10/31/2016 Analyzed: 10/31/2016

Mercury ND 0.10 NR

LCS (B6J0806-BS1)

Prepared: 10/31/2016 Analyzed: 10/31/2016

Mercury 0.824888 0.10 0.833333 99.0 80 - 120

Duplicate (B6J0806-DUP1)

Source: 1603733-31

Prepared: 10/31/2016 Analyzed: 10/31/2016

Mercury 0.019921 0.10 0.017443 NR 13.3 20 J

Matrix Spike (B6J0806-MS1)

Source: 1603733-31

Prepared: 10/31/2016 Analyzed: 10/31/2016

Mercury 0.891251 0.10 0.833333 0.017443 105 70 - 130

Matrix Spike Dup (B6J0806-MSD1)

Source: 1603733-31

Prepared: 10/31/2016 Analyzed: 10/31/2016

Mercury 0.889102 0.10 0.833333 0.017443 105 70 - 130 0.241 20

Post Spike (B6J0806-PS1)

Source: 1603733-31

Prepared: 10/31/2016 Analyzed: 10/31/2016

Mercury 0.005726 5.00000E-3 0.000209 110 85 - 115



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Reported : 11/09/2016

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0872 - EPA 7471_S

Blank (B6J0872-BLK1)

Prepared: 10/31/2016 Analyzed: 11/1/2016

Mercury ND 0.10 NR

LCS (B6J0872-BS1)

Prepared: 10/31/2016 Analyzed: 11/1/2016

Mercury 0.773685 0.10 0.833333 92.8 80 - 120

Duplicate (B6J0872-DUP1)

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Mercury 0.084960 0.10 0.071065 NR 17.8 20 J

Matrix Spike (B6J0872-MS1)

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Mercury 0.882714 0.10 0.833333 0.071065 97.4 70 - 130

Matrix Spike Dup (B6J0872-MSD1)

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Mercury 0.844963 0.10 0.833333 0.071065 92.9 70 - 130 4.37 20

Post Spike (B6J0872-PS1)

Source: 1603301-04

Prepared: 10/31/2016 Analyzed: 11/1/2016

Mercury 0.005958 5.00000E-3 0.000853 102 85 - 115



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0224 - EPA 7471_S

Blank (B6K0224-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury ND 0.10 NR

LCS (B6K0224-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.862070 0.10 0.833333 103 80 - 120

Duplicate (B6K0224-DUP1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.033953 0.10 0.022283 NR 41.5 20 R, J

Matrix Spike (B6K0224-MS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.887587 0.10 0.833333 0.022283 104 70 - 130

Matrix Spike Dup (B6K0224-MSD1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.856328 0.10 0.833333 0.022283 100 70 - 130 3.58 20

Post Spike (B6K0224-PS1)

Source: 1603730-10

Prepared: 11/5/2016 Analyzed: 11/7/2016

Mercury 0.007048 5.00000E-3 0.000267 136 85 - 115 M1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0698 - GCSEMI_DRO_LL_S									
Blank (B6J0698-BLK1)				Prepared: 10/26/2016 Analyzed: 10/26/2016					
C10-C22	ND	1.0			NR				
C23-C36	ND	1.0			NR				
Surrogate: <i>p</i> -Terphenyl	1.274		2.66667		47.8	18 - 130			
LCS (B6J0698-BS1)				Prepared: 10/26/2016 Analyzed: 10/26/2016					
DRO	19.1317	1.0	33.3333		57.4	34 - 120			
Surrogate: <i>p</i> -Terphenyl	1.960		2.66667		73.5	18 - 130			
Matrix Spike (B6J0698-MS1)		Source: 1603733-11		Prepared: 10/26/2016 Analyzed: 10/26/2016					
DRO	26.9823	1.0	33.3333	2.44800	73.6	12 - 132			
Surrogate: <i>p</i> -Terphenyl	2.191		2.66667		82.2	18 - 130			
Matrix Spike Dup (B6J0698-MSD1)		Source: 1603733-11		Prepared: 10/26/2016 Analyzed: 10/26/2016					
DRO	22.2073	1.0	33.3333	2.44800	59.3	12 - 132	19.4	20	
Surrogate: <i>p</i> -Terphenyl	1.973		2.66667		74.0	18 - 130			



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Reported : 11/09/2016

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6J0722 - GCSEMI_DRO_LL_S									
Blank (B6J0722-BLK1)				Prepared: 10/26/2016 Analyzed: 10/26/2016					
C10-C22	ND	1.0			NR				
C23-C36	ND	1.0			NR				
<i>Surrogate: p-Terphenyl</i>	<i>1.880</i>		<i>2.66667</i>		<i>70.5</i>	<i>18 - 130</i>			
LCS (B6J0722-BS1)				Prepared: 10/26/2016 Analyzed: 10/26/2016					
DRO	17.5160	1.0	33.3333		52.5	34 - 120			
<i>Surrogate: p-Terphenyl</i>	<i>1.756</i>		<i>2.66667</i>		<i>65.8</i>	<i>18 - 130</i>			
Matrix Spike (B6J0722-MS1)				Source: 1603733-32 Prepared: 10/26/2016 Analyzed: 10/26/2016					
DRO	21.5917	1.0	33.3333	4.02200	52.7	12 - 132			
<i>Surrogate: p-Terphenyl</i>	<i>1.830</i>		<i>2.66667</i>		<i>68.6</i>	<i>18 - 130</i>			
Matrix Spike Dup (B6J0722-MSD1)				Source: 1603733-32 Prepared: 10/26/2016 Analyzed: 10/26/2016					
DRO	21.9947	1.0	33.3333	4.02200	53.9	12 - 132	1.85	20	
<i>Surrogate: p-Terphenyl</i>	<i>2.102</i>		<i>2.66667</i>		<i>78.8</i>	<i>18 - 130</i>			



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Report To : John Nordenstam
Reported : 11/09/2016

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0774 - GCSEMI_DRO_W

Blank (B6J0774-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

C10-C22	ND	0.05			NR				
C23-C36	ND	0.05			NR				

Surrogate: <i>p</i> -Terphenyl	0.01842		8.00000E-2		23.0	20 - 150			
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LCS (B6J0774-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

DRO	0.747500	0.05	1.00000		74.8	42 - 142			
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Surrogate: <i>p</i> -Terphenyl	0.03372		8.00000E-2		42.2	20 - 150			
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LCS Dup (B6J0774-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

DRO	0.718070	0.05	1.00000		71.8	42 - 142	4.02	20	
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Surrogate: <i>p</i> -Terphenyl	0.03370		8.00000E-2		42.1	20 - 150			
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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K0069 - GCSEMI_DRO_LL_S									
Blank (B6K0069-BLK1)				Prepared: 11/1/2016 Analyzed: 11/2/2016					
C10-C22	ND	1.0			NR				
C23-C36	ND	1.0			NR				
Surrogate: <i>p</i> -Terphenyl	1.798		2.66667		67.4	18 - 130			
LCS (B6K0069-BS1)				Prepared: 11/1/2016 Analyzed: 11/1/2016					
DRO	17.1847	1.0	33.3333		51.6	34 - 120			
Surrogate: <i>p</i> -Terphenyl	1.557		2.66667		58.4	18 - 130			
Duplicate (B6K0069-DUP1)				Source: 1603730-10		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	3.44000	1.0		2.75867	NR		22.0	20	R
Surrogate: <i>p</i> -Terphenyl	1.309		2.66667		49.1	18 - 130			
Duplicate (B6K0069-DUP2)				Source: 1603733-34		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	1.82967	1.0		2.26633	NR		21.3	20	R
Surrogate: <i>p</i> -Terphenyl	1.685		2.66667		63.2	18 - 130			
Duplicate (B6K0069-DUP3)				Source: 1603732-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			
DRO	1.89067	1.0		1.73000	NR		8.87	20	
Surrogate: <i>p</i> -Terphenyl	2.040		2.66667		76.5	18 - 130			
Matrix Spike (B6K0069-MS1)				Source: 1603730-11		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	20.3963	1.0	33.3333	2.63567	53.3	12 - 132			
Surrogate: <i>p</i> -Terphenyl	1.657		2.66667		62.1	18 - 130			
Matrix Spike (B6K0069-MS2)				Source: 1603733-35		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	14.5147	1.0	33.3333	2.13433	37.1	12 - 132			
Surrogate: <i>p</i> -Terphenyl	1.285		2.66667		48.2	18 - 130			
Matrix Spike (B6K0069-MS3)				Source: 1603732-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			
DRO	22.5013	1.0	33.3333	1.73000	62.3	12 - 132			
Surrogate: <i>p</i> -Terphenyl	1.827		2.66667		68.5	18 - 130			
Matrix Spike Dup (B6K0069-MSD1)				Source: 1603730-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			
DRO	21.3440	1.0	33.3333	2.63567	56.1	12 - 132	4.54	20	
Surrogate: <i>p</i> -Terphenyl	1.712		2.66667		64.2	18 - 130			
Matrix Spike Dup (B6K0069-MSD2)				Source: 1603733-35		Prepared: 11/1/2016 Analyzed: 11/1/2016			
DRO	22.4903	1.0	33.3333	2.13433	61.1	12 - 132	43.1	20	R
Surrogate: <i>p</i> -Terphenyl	1.800		2.66667		67.5	18 - 130			
Matrix Spike Dup (B6K0069-MSD3)				Source: 1603732-11		Prepared: 11/2/2016 Analyzed: 11/2/2016			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0069 - GCSEMI_DRO_LL_S (continued)

Matrix Spike Dup (B6K0069-MSD3) - Continued

Source: 1603732-11

Prepared: 11/2/2016 Analyzed: 11/2/2016

DRO	25.2887	1.0	33.3333	1.73000	70.7	12 - 132	11.7	20	
Surrogate: <i>p</i> -Terphenyl	2.010		2.66667		75.4	18 - 130			



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Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0719 - GCSEMI_PCB/PEST_S

Blank (B6J0719-BLK1)

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

Surrogate: Decachlorobiphenyl

15.06

16.6667

90.4

26 - 137

Surrogate: Tetrachloro-m-xylene

16.58

16.6667

99.5

28 - 102

LCS (B6J0719-BS1)

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	141.586	16	166.667		85.0	70 - 107			
Aroclor 1260	150.678	16	166.667		90.4	69 - 120			

Surrogate: Decachlorobiphenyl

15.47

16.6667

92.8

26 - 137

Surrogate: Tetrachloro-m-xylene

17.09

16.6667

103

28 - 102

S12

Duplicate (B6J0719-DUP1)

Source: 1603733-16

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	

Surrogate: Decachlorobiphenyl

12.50

16.6667

75.0

26 - 137

Surrogate: Tetrachloro-m-xylene

12.68

16.6667

76.1

28 - 102

Matrix Spike (B6J0719-MS1)

Source: 1603733-16

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	98.1845	16	166.667	ND	58.9	34 - 120			
Aroclor 1260	108.576	16	166.667	ND	65.1	39 - 128			

Surrogate: Decachlorobiphenyl

11.00

16.6667

66.0

26 - 137

Surrogate: Tetrachloro-m-xylene

10.96

16.6667

65.8

28 - 102

Matrix Spike Dup (B6J0719-MSD1)

Source: 1603733-16

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	97.5385	16	166.667	ND	58.5	34 - 120	0.660	20	
Aroclor 1260	108.867	16	166.667	ND	65.3	39 - 128	0.267	20	

Surrogate: Decachlorobiphenyl

11.12

16.6667

66.7

26 - 137

Surrogate: Tetrachloro-m-xylene

10.97

16.6667

65.8

28 - 102



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Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0729 - GCSEMI_PCB/PEST_S

Blank (B6J0729-BLK1)

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

Surrogate: Decachlorobiphenyl

15.53

16.6667

93.2

26 - 137

Surrogate: Tetrachloro-m-xylene

16.31

16.6667

97.9

28 - 102

LCS (B6J0729-BS1)

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	141.734	16	166.667		85.0	70 - 107			
Aroclor 1260	147.183	16	166.667		88.3	69 - 120			

Surrogate: Decachlorobiphenyl

15.26

16.6667

91.6

26 - 137

Surrogate: Tetrachloro-m-xylene

17.27

16.6667

104

28 - 102

S12

Duplicate (B6J0729-DUP1)

Source: 1603733-24

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	

Surrogate: Decachlorobiphenyl

11.83

16.6667

71.0

26 - 137

Surrogate: Tetrachloro-m-xylene

9.518

16.6667

57.1

28 - 102

Matrix Spike (B6J0729-MS1)

Source: 1603733-24

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	122.644	16	166.667	ND	73.6	34 - 120			
Aroclor 1260	129.853	16	166.667	ND	77.9	39 - 128			

Surrogate: Decachlorobiphenyl

13.17

16.6667

79.0

26 - 137

Surrogate: Tetrachloro-m-xylene

14.13

16.6667

84.8

28 - 102

Matrix Spike Dup (B6J0729-MSD1)

Source: 1603733-24

Prepared: 10/26/2016 Analyzed: 10/27/2016

Aroclor 1016	120.559	16	166.667	ND	72.3	34 - 120	1.71	20	
Aroclor 1260	126.179	16	166.667	ND	75.7	39 - 128	2.87	20	

Surrogate: Decachlorobiphenyl

12.22

16.6667

73.3

26 - 137

Surrogate: Tetrachloro-m-xylene

13.71

16.6667

82.2

28 - 102



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Reported : 11/09/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.3321		0.500000	66.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000	77.2	14 - 122

Blank (B6J0756-BLK2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.4919		0.500000	98.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4931		0.500000	98.6	14 - 122

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96			
Aroclor 1260	ND	0.50			NR	64 - 106			

Surrogate: Decachlorobiphenyl	0.3537		0.500000	70.7	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3958		0.500000	79.2	14 - 122

LCS (B6J0756-BS2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	4.15151	0.50	5.00000	83.0	68 - 96				
Aroclor 1260	4.42908	0.50	5.00000	88.6	64 - 106				

Surrogate: Decachlorobiphenyl	0.4784		0.500000	95.7	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4737		0.500000	94.7	14 - 122

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96		20	
Aroclor 1260	ND	0.50			NR	64 - 106		20	

Surrogate: Decachlorobiphenyl	0.3365		0.500000	67.3	7 - 127
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Reported : 11/09/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Surrogate: Tetrachloro-m-xylene 0.3868 0.500000 77.4 14 - 122

LCS Dup (B6J0756-BSD2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016 4.39845 0.50 5.00000 88.0 68 - 96 5.78 20

Aroclor 1260 4.68570 0.50 5.00000 93.7 64 - 106 5.63 20

Surrogate: Decachlorobiphenyl 0.4810 0.500000 96.2 7 - 127

Surrogate: Tetrachloro-m-xylene 0.4868 0.500000 97.4 14 - 122



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 11/09/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6K0109 - GCSEMI_PCB/PEST_S

Blank (B6K0109-BLK1)

Prepared: 11/2/2016 Analyzed: 11/2/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

15.88 16.6667 95.3 26 - 137
18.48 16.6667 111 28 - 102 S1

LCS (B6K0109-BS1)

Prepared: 11/2/2016 Analyzed: 11/2/2016

Aroclor 1016	161.021	16	166.667		96.6	70 - 107			
Aroclor 1260	171.030	16	166.667		103	69 - 120			
Surrogate: Decachlorobiphenyl	16.37		16.6667		98.2	26 - 137			
Surrogate: Tetrachloro-m-xylene	19.06		16.6667		114	28 - 102			S12

Duplicate (B6K0109-DUP1)

Source: 1603733-34

Prepared: 11/2/2016 Analyzed: 11/3/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	14.30		16.6667		85.8	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.46		16.6667		92.8	28 - 102			

Matrix Spike (B6K0109-MS1)

Source: 1603862-01

Prepared: 11/2/2016 Analyzed: 11/2/2016

Aroclor 1016	152.576	16	166.667	ND	91.5	34 - 120			
Aroclor 1260	161.443	16	166.667	ND	96.9	39 - 128			
Surrogate: Decachlorobiphenyl	11.81		16.6667		70.9	26 - 137			
Surrogate: Tetrachloro-m-xylene	16.81		16.6667		101	28 - 102			

Matrix Spike (B6K0109-MS2)

Source: 1603733-36

Prepared: 11/2/2016 Analyzed: 11/3/2016

Aroclor 1016	137.942	16	166.667	ND	82.8	34 - 120			
Aroclor 1260	147.211	16	166.667	ND	88.3	39 - 128			
Surrogate: Decachlorobiphenyl	12.30		16.6667		73.8	26 - 137			
Surrogate: Tetrachloro-m-xylene	16.28		16.6667		97.7	28 - 102			

Matrix Spike Dup (B6K0109-MSD1)

Source: 1603862-01

Prepared: 11/2/2016 Analyzed: 11/2/2016

Aroclor 1016	153.496	16	166.667	ND	92.1	34 - 120	0.601	20	
Aroclor 1260	163.782	16	166.667	ND	98.3	39 - 128	1.44	20	
Surrogate: Decachlorobiphenyl	11.91		16.6667		71.5	26 - 137			
Surrogate: Tetrachloro-m-xylene	17.19		16.6667		103	28 - 102			S12



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B6K0109 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6K0109-MSD2)

Source: 1603733-36

Prepared: 11/2/2016 Analyzed: 11/3/2016

Aroclor 1016	133.069	16	166.667	ND	79.8	34 - 120	3.60	20	
Aroclor 1260	144.967	16	166.667	ND	87.0	39 - 128	1.54	20	
Surrogate: Decachlorobiphenyl	11.90		16.6667		71.4	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.71		16.6667		94.3	28 - 102			



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 11/09/2016

Notes and Definitions

S4	Surrogate was diluted out.
S12	Surrogate recovery outside in-house established limit but within method default criteria.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
B	Analyte detected in the associated method blank.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

<p>Date: 10/27/16</p> <p>Time: 1:50 PM</p>		<p>Received by: (Signature and Printed Name)</p> <p><i>[Signature]</i> Bryan Coe / Arco</p>	
<p>Date: 10/27/16</p> <p>Time: 1:50 PM</p>		<p>Received by: (Signature and Printed Name)</p> <p><i>[Signature]</i> Bryan Coe / Arco</p>	

<p>Date: 10/27/16</p> <p>Time: 1:50 PM</p>		<p>Received by: (Signature and Printed Name)</p> <p><i>[Signature]</i> Bryan Coe / Arco</p>	
<p>Date: 10/27/16</p> <p>Time: 1:50 PM</p>		<p>Received by: (Signature and Printed Name)</p> <p><i>[Signature]</i> Bryan Coe / Arco</p>	

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
503 Durey	10/22/16		503 Durey	10/22/16	
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

CHAIN OF CUSTODY RECORD

Page 2 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOE Ver. 20130715

Method of Transport	Sample Conditions Upon Receipt															
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<table><tr><td>Condition</td><td>Y</td><td>N</td></tr><tr><td>1. CHILLED</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>2. HEADSPACE (V2A)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>3. CONTAINER INTACT</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>4. SEALED</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></table>	Condition	Y	N	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. HEADSPACE (V2A)	<input type="checkbox"/>	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>
Condition	Y	N														
1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>														
2. HEADSPACE (V2A)	<input type="checkbox"/>	<input type="checkbox"/>														
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>														
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>														
<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	5. # OF SAMPLES MATCH COC <input type="checkbox"/>															
	6. PRESERVED <input type="checkbox"/>															
	7. COOLER TEMP. deg. C: 6.0															

Company: **TRC** Address: **9685 RESEARCH DR** Tel: _____
City: **IRVINE** State: **CA** Zip: **92618** Fax: _____
Attn: **JOHN NORDENSTAM** Email: _____
Company: **TRC** Company: _____
Address: **9685 RESEARCH DR** Address: _____
City: **IRVINE** State: **CA** Zip: **92618** City: _____ State: _____ Zip: _____

SEND REPORT TO: _____ Email: _____
SEND INVOICE TO: _____ Email: _____
☐ same as SEND REPORT TO

Project Name: ROOSEVELT HS	Quote No:	Special Instructions/Comments:	
Project No.: 265642	PO #:		
Sampler: R SURRENCY			
ITEM	Lab No.	Sample ID / Location	
1	1603733-11	HL 2-1-5.0-5.5	
2	1603733-12	HL 2-1-9.5-10.0	
3	1603733-13	HL 2-2-0.5-1.0	
4	1603733-14	HL 2-2-2.0-2.5	
5	1603733-15	HL 2-2-5.0-5.5	
6	1603733-16	HL 2-2-10.0-10.5	
7	1603733-17	HL 3-1-0.5-1.0	
8	1603733-18	HL 3-1-2.0-2.5	
9	1603733-19	HL 3-1-5.0-5.5	
10	1603733-20	HL 3-1-9.5-10.0	
Encircle or Write Requested Analysis			
8260 (B24 Volatiles)	<input checked="" type="checkbox"/>	8015 (GRO)	<input checked="" type="checkbox"/>
8015 (DRO)	<input checked="" type="checkbox"/>	8270 (Semi-volatiles)	<input checked="" type="checkbox"/>
8081 (Organochlorine Pesticides)	<input checked="" type="checkbox"/>	6010 / 7000 (Title 22 Metals)	<input checked="" type="checkbox"/>
TO-15	<input checked="" type="checkbox"/>		
Encircle Sample Matrix			
SOIL / SEDIMENT / SLUDGE	<input checked="" type="checkbox"/>	WATER - DRINKING / GROUND	<input checked="" type="checkbox"/>
WATER - STORM / WASTE	<input checked="" type="checkbox"/>	AQUEOUS / LAYERED - OIL	<input checked="" type="checkbox"/>
Container			
Type: 1-Tube, 2-VOA, 3-Liter, 4-Pint, 5-Gal, 6-Tedlar, 7-Canister	#	Material: 1-Glass, 2-Plastic, 3-Metal	QA/QC
1	1	2	<input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB <input type="checkbox"/> Level IV

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS SURRENCY
Submitter Print Name
Signature
Date: 10/22/16 Time: 1:50

Received by: (Signature and Printed Name) Date: 10/22/16 Time: 1:50
Relinquished by: (Signature and Printed Name) Date: 10/22/16 Time: 1:50
Relinquished by: (Signature and Printed Name) Date: 10/22/16 Time: 1:50
Relinquished by: (Signature and Printed Name) Date: 10/22/16 Time: 1:50

CHAIN OF CUSTODY RECORD

Page 3 of 4

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input checked="" type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (VDA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg. C.
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. OTHER

Company: TRC		Address: 9685 RESEARCH DRIVE		Tel: _____	
Attn: JOHN NORDENSTAM		City: IRVINE		State: CA Zip: 92618	
Company: TRC		Address: _____		Email: _____	
Address: 9685 RESEARCH DR		City: IRVINE		State: _____ Zip: _____	

Project Name: ROOSEVELT HS		Quote No: _____		Special Instructions/Comments: _____	
Project No: 265642		PO #: _____			
Sampler: R SURENCY					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603733-21	HL3-2-0.5-1.0		10/22/16	1448
2	-22	HL3-2-2.0-2.5			1450
3	-23	HL3-2-5.0-5.5			1452
4	-24	HL3-2-9.5-10.0			1455
5	-25	HL4-1-0.5-1.0			1515
6	-26	HL4-1-2.0-2.5			1520
7	-27	HL4-1-5.0-5.5			1522
8	-28	HL4-1-9.5-10.0			1530
9	-29	HL4-2-0.5-1.0			1538
10	-30	HL4-2-2.0-2.5			1540

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature: Ross Surency		Date: 10/27/16	
Submitter Print Name: ROSS SURENCY		Signature: _____		Date: _____	

City: _____ State: _____ Zip: _____ City: _____ State: _____ Zip: _____

[illegible]

Relinquished by: (Signature and Printed Name) <i>Bob Hurley</i>	Date: 10/22/16	Time: 1850	Received by: (Signature and Printed Name) <i>James A. Arvo</i>	Date: 10/22/16	Time: 1850
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Friday, October 28, 2016 9:00 AM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at Clarifier and Hoists)

Rachelle,

For the soil samples collected from the clarifier and hoist locations on October 22, 2016, please perform the additional analyses specified below.

Duplicate Samples

Please pull an aliquot from the sample listed below and perform the duplicate analysis for TPH carbon chain (EPA 8015), VOCs (EPA 8260B), SVOCs (EPA 8270C), and metals (EPA 6010/7000):

- Sample CL1-2-5.0-5.5

Please pull an aliquot from the samples listed below and perform the duplicate analyses for TPH carbon chain (EPA 8015), PCBs (EPA 8082), and metals (EPA 6010/7000):

- Sample HL1-2-9.5-10
- Sample HL3-1-5.0-5.5
- Sample HL4-2-5.0-5.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603734

Client Reference : LAUSD-ROOSEVELT HS, 265642-0000/TA02

Enclosed are the results for sample(s) received on October 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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Irvine, CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA-831-1-0.5	1603734-01	Soil	10/23/16 8:05	10/23/16 16:50
AA-831-1-2.5	1603734-02	Soil	10/23/16 8:15	10/23/16 16:50
AA-831-2-0.5	1603734-03	Soil	10/23/16 7:50	10/23/16 16:50
AA-831-2-2.5	1603734-04	Soil	10/23/16 8:00	10/23/16 16:50
AA-831-3-0.5	1603734-05	Soil	10/23/16 7:40	10/23/16 16:50
AA-831-3-2.5	1603734-06	Soil	10/23/16 7:50	10/23/16 16:50
AA-831-4-0.5	1603734-07	Soil	10/23/16 7:25	10/23/16 16:50
AA-831-4-2.5	1603734-08	Soil	10/23/16 7:35	10/23/16 16:50
AA-831-5-0.5	1603734-09	Soil	10/23/16 8:15	10/23/16 16:50
AA-831-5-2.5	1603734-10	Soil	10/23/16 8:25	10/23/16 16:50
AA-831-6-0.5	1603734-11	Soil	10/23/16 8:30	10/23/16 16:50
AA-831-6-2.5	1603734-12	Soil	10/23/16 8:40	10/23/16 16:50
F-6-0.5	1603734-13	Soil	10/23/16 10:00	10/23/16 16:50
F-6-2.5	1603734-14	Soil	10/23/16 10:10	10/23/16 16:50
F-8-0.5	1603734-15	Soil	10/23/16 14:20	10/23/16 16:50
F-8-2.5	1603734-16	Soil	10/23/16 14:30	10/23/16 16:50
E-6-0.5	1603734-17	Soil	10/23/16 11:50	10/23/16 16:50
E-6-2.5	1603734-18	Soil	10/23/16 12:00	10/23/16 16:50
E-8-0.5	1603734-19	Soil	10/23/16 14:05	10/23/16 16:50
E-8-2.5	1603734-20	Soil	10/23/16 14:15	10/23/16 16:50
D-6-0.5	1603734-21	Soil	10/23/16 10:50	10/23/16 16:50
D-6-2.5	1603734-22	Soil	10/23/16 11:00	10/23/16 16:50
D-8-0.5	1603734-23	Soil	10/23/16 13:35	10/23/16 16:50
D-8-2.5	1603734-24	Soil	10/23/16 13:45	10/23/16 16:50
C-6-0.5	1603734-25	Soil	10/23/16 11:30	10/23/16 16:50
C-6-2.5	1603734-26	Soil	10/23/16 11:40	10/23/16 16:50
C-8-0.5	1603734-27	Soil	10/23/16 13:20	10/23/16 16:50
C-8-2.5	1603734-28	Soil	10/23/16 13:30	10/23/16 16:50
B-6-0.5	1603734-29	Soil	10/23/16 12:05	10/23/16 16:50
B-6-2.5	1603734-30	Soil	10/23/16 12:15	10/23/16 16:50
B-8-0.5	1603734-31	Soil	10/23/16 13:00	10/23/16 16:50
B-8-2.5	1603734-32	Soil	10/23/16 13:10	10/23/16 16:50
EB-12-10/23/16	1603734-33	Water	10/23/16 15:45	10/23/16 16:50
AA-831-4-2.5 Duplicate	1603734-34	Soil	10/23/16 7:35	10/23/16 16:50
C-8-2.5 Duplicate	1603734-35	Soil	10/23/16 13:30	10/23/16 16:50
AA-831-3-0.5 Duplicate	1603734-36	Soil	10/23/16 7:40	10/23/16 16:50
D-8-0.5 Duplicate	1603734-37	Soil	10/23/16 13:35	10/23/16 16:50



Certificate of Analysis

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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,

Report To : John Nordenstam

Reported : 11/08/2016

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-1-0.5

Lab ID: 1603734-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:06	
Lead	2.5	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:06	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-1-2.5

Lab ID: 1603734-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 15:53	
Lead	2.4	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 15:53	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-2-0.5

Lab ID: 1603734-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:10	
Lead	5.4	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:10	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-2-2.5

Lab ID: 1603734-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 15:57	
Lead	2.2	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 15:57	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-3-0.5

Lab ID: 1603734-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:11	
Lead	4.6	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:11	



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Irvine , CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-3-2.5

Lab ID: 1603734-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:15	
Lead	2.0	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:15	



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Irvine , CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-4-0.5

Lab ID: 1603734-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:12	
Lead	2.7	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:12	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-4-2.5

Lab ID: 1603734-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:16	
Lead	1.7	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:16	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-5-0.5

Lab ID: 1603734-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6J0814	10/29/2016	10/31/16 12:13	
Lead	2.5	1.0	0.11	1	B6J0814	10/29/2016	10/31/16 12:13	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-5-2.5

Lab ID: 1603734-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:00	
Lead	2.0	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:00	



Certificate of Analysis

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Irvine , CA 92618

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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-6-0.5

Lab ID: 1603734-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:19	
Lead	3.0	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:19	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA-831-6-2.5

Lab ID: 1603734-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:01	
Lead	2.4	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:01	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID F-6-0.5

Lab ID: 1603734-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:26	
Lead	19	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:26	



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Client Sample ID F-6-2.5

Lab ID: 1603734-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:02	
Lead	21	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:02	



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Client Sample ID F-8-0.5

Lab ID: 1603734-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:27	
Lead	9.2	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:27	



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Client Sample ID F-8-2.5

Lab ID: 1603734-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:20	
Lead	15	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:20	



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Report To : John Nordenstam
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Client Sample ID E-6-0.5

Lab ID: 1603734-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:28	
Lead	28	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:28	



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Client Sample ID E-6-2.5

Lab ID: 1603734-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:21	
Lead	26	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:21	



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Report To : John Nordenstam
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Client Sample ID E-8-0.5

Lab ID: 1603734-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:29	
Lead	20	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:29	



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Client Sample ID E-8-2.5

Lab ID: 1603734-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:22	
Lead	7.9	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:22	



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Client Sample ID D-6-0.5

Lab ID: 1603734-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:30	
Lead	18	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:30	



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Client Sample ID D-6-2.5

Lab ID: 1603734-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:23	
Lead	20	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:23	



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Client Sample ID D-8-0.5

Lab ID: 1603734-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:31	
Lead	15	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:31	



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Client Sample ID D-8-2.5

Lab ID: 1603734-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:24	
Lead	12	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:24	



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Client Sample ID C-6-0.5

Lab ID: 1603734-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:33	
Lead	11	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:33	



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Client Sample ID C-6-2.5

Lab ID: 1603734-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:25	
Lead	8.6	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:25	



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Client Sample ID C-8-0.5

Lab ID: 1603734-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:34	
Lead	22	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:34	



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Client Sample ID C-8-2.5

Lab ID: 1603734-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:26	
Lead	31	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:26	



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Client Sample ID B-6-0.5

Lab ID: 1603734-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:37	
Lead	22	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:37	



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Client Sample ID B-6-2.5

Lab ID: 1603734-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:27	
Lead	110	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:27	



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Reported : 11/08/2016

Client Sample ID B-8-0.5

Lab ID: 1603734-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:38	
Lead	10	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:38	



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Client Sample ID B-8-2.5

Lab ID: 1603734-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0046	11/02/2016	11/03/16 16:28	
Lead	5.5	1.0	0.11	1	B6K0046	11/02/2016	11/03/16 16:28	



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Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID EB-12-10/23/16

Lab ID: 1603734-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0749	10/27/2016	10/28/16 10:51	
Lead	ND	0.0050	0.0028	1	B6J0749	10/27/2016	10/28/16 10:51	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
4,4'-DDE	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
4,4'-DDT	ND	0.05	0.004	1	B6J0756	10/27/2016	10/27/16 14:39	
Aldrin	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:39	
alpha-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:39	
alpha-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
beta-BHC	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Chlordane	ND	0.25	0.03	1	B6J0756	10/27/2016	10/27/16 14:39	
delta-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:39	
Dieldrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Endosulfan I	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Endosulfan II	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Endrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Endrin aldehyde	ND	0.05	0.006	1	B6J0756	10/27/2016	10/27/16 14:39	
Endrin ketone	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
gamma-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:39	
gamma-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Heptachlor	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:39	
Methoxychlor	ND	0.25	0.004	1	B6J0756	10/27/2016	10/27/16 14:39	
Toxaphene	ND	2.5	0.23	1	B6J0756	10/27/2016	10/27/16 14:39	
Surrogate: Decachlorobiphenyl	28.8 %		7 - 127		B6J0756	10/27/2016	10/27/16 14:39	
Surrogate: Tetrachloro-m-xylene	50.2 %		14 - 122		B6J0756	10/27/2016	10/27/16 14:39	



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Reported : 11/08/2016

Client Sample ID EB-12-10/23/16

Lab ID: 1603734-33

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1221	ND	1.0	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1232	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1242	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1248	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1254	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1260	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1262	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
Aroclor 1268	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:32	
<i>Surrogate: Decachlorobiphenyl</i>	<i>56.5 %</i>		<i>7 - 127</i>		B6J0756	10/27/2016	<i>10/28/16 13:32</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>86.4 %</i>		<i>14 - 122</i>		B6J0756	10/27/2016	<i>10/28/16 13:32</i>	



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Client Sample ID AA-831-4-2.5 Duplicate
Lab ID: 1603734-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:18	
Lead	1.6	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:18	



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Client Sample ID C-8-2.5 Duplicate
Lab ID: 1603734-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:21	
Lead	34	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:21	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
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Client Sample ID AA-831-3-0.5 Duplicate
Lab ID: 1603734-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:25	
Lead	2.8	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:25	



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Client Sample ID D-8-0.5 Duplicate
Lab ID: 1603734-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:28	
Lead	18	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:28	



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Reported : 11/08/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0749 - EPA 3010A_W

Blank (B6J0749-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0749-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	0.916230	0.010	1.00000		91.6	80 - 120			
Lead	0.944383	0.0050	1.00000		94.4	80 - 120			

Duplicate (B6J0749-DUP1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0749-MS1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.22285	0.010	2.50000	ND	88.9	74 - 123			
Lead	2.27123	0.0050	2.50000	ND	90.8	78 - 109			

Matrix Spike Dup (B6J0749-MSD1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.28565	0.010	2.50000	ND	91.4	74 - 123	2.79	20	
Lead	2.33496	0.0050	2.50000	ND	93.4	78 - 109	2.77	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0814 - EPA 3050B_S

Blank (B6J0814-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0814-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	46.9384	1.0	50.0000		93.9	80 - 120			
Lead	48.7594	1.0	50.0000		97.5	80 - 120			

Duplicate (B6J0814-DUP1)

Source: 1603729-19

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	4.24594	1.0		3.79605	NR		11.2	20	
Lead	10.8741	1.0		11.2837	NR		3.70	20	

Matrix Spike (B6J0814-MS1)

Source: 1603729-19

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	80.8612	1.0	125.000	3.79605	61.7	59 - 103			
Lead	87.0080	1.0	125.000	11.2837	60.6	34 - 129			

Matrix Spike Dup (B6J0814-MSD1)

Source: 1603729-19

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	52.9376	1.0	125.000	3.79605	39.3	59 - 103	41.7	20	M1, R
Lead	60.6496	1.0	125.000	11.2837	39.5	34 - 129	35.7	20	R



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0815 - EPA 3050B_S

Blank (B6J0815-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0815-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	46.8478	1.0	50.0000		93.7	80 - 120			
Lead	48.9144	1.0	50.0000		97.8	80 - 120			

Duplicate (B6J0815-DUP1)

Source: 1603734-11

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	3.11373	1.0		2.54242	NR		20.2	20	R
Lead	2.64245	1.0		2.97029	NR		11.7	20	

Matrix Spike (B6J0815-MS1)

Source: 1603734-11

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	82.7332	1.0	125.000	2.54242	64.2	59 - 103			
Lead	82.7804	1.0	125.000	2.97029	63.8	34 - 129			

Matrix Spike Dup (B6J0815-MSD1)

Source: 1603734-11

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	89.0852	1.0	125.000	2.54242	69.2	59 - 103	7.39	20	
Lead	89.8404	1.0	125.000	2.97029	69.5	34 - 129	8.18	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0046 - EPA 3050B_S

Blank (B6K0046-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0046-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	49.5203	1.0	50.0000		99.0	80 - 120			
Lead	51.8207	1.0	50.0000		104	80 - 120			

Duplicate (B6K0046-DUP1)

Source: 1603734-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	3.03571	1.0		3.01036	NR		0.839	20	
Lead	7.36015	1.0		2.39187	NR		102	20	R

Matrix Spike (B6K0046-MS1)

Source: 1603734-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	106.642	1.0	125.000	3.01036	82.9	59 - 103			
Lead	111.438	1.0	125.000	2.39187	87.2	34 - 129			

Matrix Spike Dup (B6K0046-MSD1)

Source: 1603734-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	138.728	1.0	125.000	3.01036	109	59 - 103	26.2	20	M1, R
Lead	147.057	1.0	125.000	2.39187	116	34 - 129	27.6	20	R



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0210 - EPA 3050B_S

Blank (B6K0210-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.178046	1.0			NR				J

LCS (B6K0210-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	43.2665	1.0	50.0000		86.5	80 - 120			
Lead	48.1315	1.0	50.0000		96.3	80 - 120			

Duplicate (B6K0210-DUP1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	4.71497	1.0		3.84095	NR		20.4	20	R
Lead	1.44785	1.0		1.04040	NR		32.8	20	R

Matrix Spike (B6K0210-MS1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	111.199	1.0	125.000	3.84095	85.9	59 - 103			
Lead	115.917	1.0	125.000	1.04040	91.9	34 - 129			

Matrix Spike Dup (B6K0210-MSD1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	108.492	1.0	125.000	3.84095	83.7	59 - 103	2.46	20	
Lead	113.096	1.0	125.000	1.04040	89.6	34 - 129	2.46	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0756-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3321		0.500000		66.4	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3389		0.500000		67.8	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000		77.2	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4132		0.500000		82.6	14 - 122		

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.389980	0.05	0.500000		78.0	59 - 109		
4,4'-DDD [2C]	0.400360	0.05	0.500000		80.1	59 - 109		
4,4'-DDE	0.382070	0.05	0.500000		76.4	63 - 101		
4,4'-DDE [2C]	0.393755	0.05	0.500000		78.8	63 - 101		
4,4'-DDT	0.312965	0.05	0.500000		62.6	36 - 96		
4,4'-DDT [2C]	0.306415	0.05	0.500000		61.3	36 - 96		
Aldrin	0.395040	0.02	0.500000		79.0	64 - 96		
Aldrin [2C]	0.405005	0.02	0.500000		81.0	64 - 96		
alpha-BHC	0.393195	0.02	0.500000		78.6	63 - 92		
alpha-BHC [2C]	0.408610	0.02	0.500000		81.7	63 - 92		
alpha-Chlordane	0.381445	0.02	0.500000		76.3	63 - 101		
alpha-Chlordane [2C]	0.387965	0.02	0.500000		77.6	63 - 101		
beta-BHC	0.383430	0.02	0.500000		76.7	58 - 95		
beta-BHC [2C]	0.397770	0.02	0.500000		79.6	58 - 95		
delta-BHC	0.279005	0.02	0.500000		55.8	37 - 107		
delta-BHC [2C]	0.286245	0.02	0.500000		57.2	37 - 107		
Dieldrin	0.397825	0.05	0.500000		79.6	62 - 102		
Dieldrin [2C]	0.400380	0.05	0.500000		80.1	62 - 102		
Endosulfan I	0.380945	0.02	0.500000		76.2	61 - 97		
Endosulfan I [2C]	0.389895	0.02	0.500000		78.0	61 - 97		
Endosulfan II	0.380440	0.05	0.500000		76.1	61 - 103		
Endosulfan II [2C]	0.377870	0.05	0.500000		75.6	61 - 103		
Endosulfan sulfate	0.334510	0.05	0.500000		66.9	60 - 112		
Endosulfan Sulfate [2C]	0.338545	0.05	0.500000		67.7	60 - 112		
Endrin	0.442345	0.05	0.500000		88.5	62 - 103		
Endrin [2C]	0.452120	0.05	0.500000		90.4	62 - 103		
Endrin aldehyde	0.361285	0.05	0.500000		72.3	64 - 116		
Endrin aldehyde [2C]	0.372550	0.05	0.500000		74.5	64 - 116		
Endrin ketone	0.346515	0.05	0.500000		69.3	56 - 113		
Endrin ketone [2C]	0.349980	0.05	0.500000		70.0	56 - 113		
gamma-BHC	0.401575	0.02	0.500000		80.3	64 - 95		
gamma-BHC [2C]	0.413670	0.02	0.500000		82.7	64 - 95		



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0756-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

gamma-Chlordane	0.379495	0.02	0.500000		75.9	64 - 99		
gamma-Chlordane [2C]	0.386585	0.02	0.500000		77.3	64 - 99		
Heptachlor	0.401695	0.02	0.500000		80.3	64 - 93		
Heptachlor [2C]	0.406790	0.02	0.500000		81.4	64 - 93		
Heptachlor epoxide	0.389420	0.02	0.500000		77.9	65 - 98		
Heptachlor epoxide [2C]	0.396635	0.02	0.500000		79.3	65 - 98		
Methoxychlor	0.326050	0.25	0.500000		65.2	0 - 141		
Methoxychlor [2C]	0.329225	0.25	0.500000		65.8	0 - 141		
Surrogate: Decachlorobiphenyl	0.3537		0.500000		70.7	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3480		0.500000		69.6	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.3958		0.500000		79.2	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4328		0.500000		86.6	14 - 122		

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.382190	0.05	0.500000		76.4	59 - 109	2.02	20
4,4'-DDD [2C]	0.396440	0.05	0.500000		79.3	59 - 109	0.984	20
4,4'-DDE	0.374120	0.05	0.500000		74.8	63 - 101	2.10	20
4,4'-DDE [2C]	0.388570	0.05	0.500000		77.7	63 - 101	1.33	20
4,4'-DDT	0.301065	0.05	0.500000		60.2	36 - 96	3.88	20
4,4'-DDT [2C]	0.295700	0.05	0.500000		59.1	36 - 96	3.56	20
Aldrin	0.387615	0.02	0.500000		77.5	64 - 96	1.90	20
Aldrin [2C]	0.401730	0.02	0.500000		80.3	64 - 96	0.812	20
alpha-BHC	0.384635	0.02	0.500000		76.9	63 - 92	2.20	20
alpha-BHC [2C]	0.401870	0.02	0.500000		80.4	63 - 92	1.66	20
alpha-Chlordane	0.373095	0.02	0.500000		74.6	63 - 101	2.21	20
alpha-Chlordane [2C]	0.383550	0.02	0.500000		76.7	63 - 101	1.14	20
beta-BHC	0.374495	0.02	0.500000		74.9	58 - 95	2.36	20
beta-BHC [2C]	0.391100	0.02	0.500000		78.2	58 - 95	1.69	20
delta-BHC	0.273035	0.02	0.500000		54.6	37 - 107	2.16	20
delta-BHC [2C]	0.281320	0.02	0.500000		56.3	37 - 107	1.74	20
Dieldrin	0.389230	0.05	0.500000		77.8	62 - 102	2.18	20
Dieldrin [2C]	0.395445	0.05	0.500000		79.1	62 - 102	1.24	20
Endosulfan I	0.373770	0.02	0.500000		74.8	61 - 97	1.90	20
Endosulfan I [2C]	0.385820	0.02	0.500000		77.2	61 - 97	1.05	20
Endosulfan II	0.371020	0.05	0.500000		74.2	61 - 103	2.51	20
Endosulfan II [2C]	0.370560	0.05	0.500000		74.1	61 - 103	1.95	20
Endosulfan sulfate	0.323020	0.05	0.500000		64.6	60 - 112	3.49	20
Endosulfan Sulfate [2C]	0.319495	0.05	0.500000		63.9	60 - 112	5.79	20
Endrin	0.427475	0.05	0.500000		85.5	62 - 103	3.42	20
Endrin [2C]	0.441245	0.05	0.500000		88.2	62 - 103	2.43	20
Endrin aldehyde	0.352420	0.05	0.500000		70.5	64 - 116	2.48	20



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Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Endrin aldehyde [2C]	0.364575	0.05	0.500000		72.9	64 - 116	2.16	20	
Endrin ketone	0.334495	0.05	0.500000		66.9	56 - 113	3.53	20	
Endrin ketone [2C]	0.326635	0.05	0.500000		65.3	56 - 113	6.90	20	
gamma-BHC	0.392935	0.02	0.500000		78.6	64 - 95	2.17	20	
gamma-BHC [2C]	0.407880	0.02	0.500000		81.6	64 - 95	1.41	20	
gamma-Chlordane	0.371900	0.02	0.500000		74.4	64 - 99	2.02	20	
gamma-Chlordane [2C]	0.382560	0.02	0.500000		76.5	64 - 99	1.05	20	
Heptachlor	0.394790	0.02	0.500000		79.0	64 - 93	1.73	20	
Heptachlor [2C]	0.403430	0.02	0.500000		80.7	64 - 93	0.829	20	
Heptachlor epoxide	0.382100	0.02	0.500000		76.4	65 - 98	1.90	20	
Heptachlor epoxide [2C]	0.393685	0.02	0.500000		78.7	65 - 98	0.747	20	
Methoxychlor	0.311510	0.25	0.500000		62.3	0 - 141	4.56	20	
Methoxychlor [2C]	0.300570	0.25	0.500000		60.1	0 - 141	9.10	20	
Surrogate: Decachlorobiphenyl	0.3365		0.500000		67.3	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.3304		0.500000		66.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.3868		0.500000		77.4	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.4238		0.500000		84.8	14 - 122			



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Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR			
Aroclor 1221	ND	1.0			NR			
Aroclor 1232	ND	0.50			NR			
Aroclor 1242	ND	0.50			NR			
Aroclor 1248	ND	0.50			NR			
Aroclor 1254	ND	0.50			NR			
Aroclor 1260	ND	0.50			NR			
Aroclor 1262	ND	0.50			NR			
Aroclor 1268	ND	0.50			NR			

Surrogate: Decachlorobiphenyl	0.3321		0.500000	66.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000	77.2	14 - 122

Blank (B6J0756-BLK2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	ND	0.50			NR			
Aroclor 1221	ND	1.0			NR			
Aroclor 1232	ND	0.50			NR			
Aroclor 1242	ND	0.50			NR			
Aroclor 1248	ND	0.50			NR			
Aroclor 1254	ND	0.50			NR			
Aroclor 1260	ND	0.50			NR			
Aroclor 1262	ND	0.50			NR			
Aroclor 1268	ND	0.50			NR			

Surrogate: Decachlorobiphenyl	0.4919		0.500000	98.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4931		0.500000	98.6	14 - 122

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96		
Aroclor 1260	ND	0.50			NR	64 - 106		
Surrogate: Decachlorobiphenyl	0.3537		0.500000	70.7	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.3958		0.500000	79.2	14 - 122			

LCS (B6J0756-BS2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	4.15151	0.50	5.00000	83.0	68 - 96			
Aroclor 1260	4.42908	0.50	5.00000	88.6	64 - 106			
Surrogate: Decachlorobiphenyl	0.4784		0.500000	95.7	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.4737		0.500000	94.7	14 - 122			

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96		20
Aroclor 1260	ND	0.50			NR	64 - 106		20
Surrogate: Decachlorobiphenyl	0.3365		0.500000	67.3	7 - 127			



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9685 Research Drive

Irvine, CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000.

Report To : John Nordenstam

Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Surrogate: Tetrachloro-m-xylene 0.3868 0.500000 77.4 14 - 122

LCS Dup (B6J0756-BSD2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016 4.39845 0.50 5.00000 88.0 68 - 96 5.78 20

Aroclor 1260 4.68570 0.50 5.00000 93.7 64 - 106 5.63 20

Surrogate: Decachlorobiphenyl 0.4810 0.500000 96.2 7 - 127

Surrogate: Tetrachloro-m-xylene 0.4868 0.500000 97.4 14 - 122



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000,

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only ATLCOC Ver. 20130715

Method of Transport	Sample Conditions Upon Receipt
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	Condition <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> 1. CHILLED <input type="checkbox"/> 2. HEADSPACE (VDA) <input type="checkbox"/> 3. CONTAINER IS TACT <input type="checkbox"/> 4. SEALED	6. PRESERVED 7. COOLER TEMP. (deg. C): 6.0

Company: **TRC SOLUTIONS, INC** Address: **9685 RESEARCH DRIVE** Tel: **949-341-2467**
City: **IRVINE** State: **CA** Zip: **92618** Fax: **949-722-7311**
Attn: **JOHN NORDENSTAM, jnordenstam@resolutions.com** Email: _____
Company: **TRC SOLUTIONS, INC**
Address: **9685 RESEARCH DRIVE**
City: **IRVINE** State: **CA** Zip: **92618**

Project Name: **LAUSD - ROOSEVELT HS** Quote No: **6167131**
Project No.: **265642-0000 / TA02** PO #: **100 816**
Sampler: **Giuseppe Cefalu**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603734-01	AA-831-1-0.5		10/23/16	0805
2	-02	AA-831-1-2.5		10/23/16	0815
3	-03	AA-831-2-0.5		10/23/16	0750
4	-04	AA-831-2-2.5		10/23/16	0800
5	-05	AA-831-3-0.5		10/23/16	0740
6	-06	AA-831-3-2.5		10/23/16	0750
7	-07	AA-831-4-0.5		10/23/16	0725
8	-08	AA-831-4-2.5		10/23/16	0735
9	-09	AA-831-5-0.5		10/23/16	0815
10	-10	AA-831-5-2.5		10/23/16	0825

Special Instructions/Comments:

Endcircle or Write Requested Analysis	Endcircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	5	15
8015 (GRO)	WATER - DRINKING / GROUND	5	15
8015 (DRO)	WATER - STORM / WASTE	5	15
8270 (Semi-volatiles)	SOLIDS / WIPE / FILTER	5	15
8081 (Organochlorine Pesticides)	AQUEOUS / LAYERED - OIL	5	15
6010 / 7000 (Title 22 Metals)		5	15
TO-15		5	15
AS EPA 601B		5	15
Pb EPA 601B		5	15

Remarks: 5=Zn (IAC); 6=NOH; 7=NAHNO3; 3=H2SO4; 4=AC; Material: 1=Glass; 2=Plastic; 3=Metal; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pin; 5=Can; 6=Feeder; 7=Canister

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS S. AGENCY Signature: **Dor Ramsey** Submitter Print Name: **Dor Ramsey**

Relinquished by: (Signature and Printed Name) **Dor Ramsey** Date: **10/23/16** Time: **1515**
Relinquished by: (Signature and Printed Name) **Dor Ramsey** Date: **10/23/16** Time: **1650**
Relinquished by: (Signature and Printed Name) **Dor Ramsey** Date: **10/23/16** Time: **1650**

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:56 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 0.5 feet)

Rachelle,

For the soil samples collected at 0.5 feet on October 22/23, 2016, please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 22, 2016 (46 samples at 0.5 feet)

- Sample W-14-0.5
- Sample X-17-0.5
- Sample Y-8-0.5
- Sample AA923-1-0.5
- Sample AA828-5-0.5

Samples collected on October 23, 2016 (39 samples at 0.5 feet)

- Sample AA651/683-3-0.5
- Sample AA955-3-0.5
- Sample AA831-3-0.5
- Sample D-8-0.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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January 11, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603734

Client Reference : LAUSD-ROOSEVELT HS, 265642-0000/TA02

Enclosed are the results for sample(s) received on October 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000,

Report To : John Nordenstam

Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-6-2.5	1603734-30	Soil	10/23/16 12:15	10/23/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000,
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID B-6-2.5

Lab ID: 1603734-30

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.7	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:27	



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Project Number : LAUSD-ROOSEVELT HS, 265642-0000
Report To : John Nordenstam
Reported : 01/11/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0221 - STLC_S Extraction									
Blank (B7A0221-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0221-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0221-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.14591		2.00000		107	80 - 120			
Duplicate (B7A0221-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	9.66282	1.0		9.72033	NR		0.593	20	
Duplicate (B7A0221-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	18.7563	1.0		18.6238	NR		0.709	20	
Matrix Spike (B7A0221-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.4314		2.00000	9.72033	85.6	44 - 130			
Matrix Spike (B7A0221-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	19.9180		2.00000	18.6238	64.7	44 - 130			
Matrix Spike Dup (B7A0221-MSD1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.7140		2.00000	9.72033	99.7	44 - 130	2.44	20	



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD-ROOSEVELT HS, 265642-0000.

Report To : John Nordenstam

Reported : 01/11/2017

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L	
Screening Level:				Units:					
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	86	X	---	Perform laboratory analysis for STLC for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	110	X	---	Perform laboratory analysis for STLC for lead
B-6b-2.5	11/23/2016	1604246	2.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead
B-6c-0.5	11/23/2016	1604246	0.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead
B-6c-3.5	11/23/2016	1604246	3.5	---	---	190	X	---	Perform laboratory analysis for STLC for lead
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	---	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	X	---	Perform laboratory analysis for STLC for lead
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	X	---	Perform laboratory analysis for STLC for lead
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	X	Perform laboratory analysis for TCLP for lead
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	X	---	Perform laboratory analysis for STLC for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	Perform laboratory analysis for STLC for lead
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	X	---	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	Perform laboratory analysis for STLC for lead
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B		TCLP		
				TTL	STLC	TTL	STLC			
				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Units:										
Screening Level:										
AUD-6-0-25	11/21/2016	1604222	0.25	12	5.0	80	5.0		Perform laboratory analysis for STLC for lead	
AUD-6-0-5	10/16/2016	1603634	0.5	---	---	160	X		Perform laboratory analysis for TCLP for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	5.2	---	670	26	X	Perform laboratory analysis for STLC for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-2-5	10/29/2016	1603827	2.5	18	---	19	---	---	Perform laboratory analysis for STLC for lead	
AA2684-3-2-5	10/29/2016	1603827	2.5	20	---	16	---	---		
AA2543-1-2-5	10/29/2016	1603827	2.5	33	---	25	---	---		
AA2543-2-0-5	10/29/2016	1603827	0.5	34	---	26	---	---		
AA2543-2-2-5	10/29/2016	1603827	2.5	23	---	17	---	---		
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	25	---	17	---	---		
AA2543-5-0-5	10/29/2016	1603827	0.5	24	---	17	---	---		
AA2543-5-2-5	10/29/2016	1603827	2.5	25	---	16	---	---		
AA2543-6-0-5	10/29/2016	1603827	0.5	34	---	26	---	---		
AA2543-6-2-5	10/29/2016	1603827	2.5	39	---	34	---	---		
AA2038-1-0-5	10/30/2016	1603843	0.5	19	---	35	---	---		
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	11	---	---		
AA2038-2-0-5	10/30/2016	1603843	0.5	23	---	7.9	---	---		
AA2038-2-2-5	10/30/2016	1603843	0.5	14	---	13	---	---		
AA2038-3-0-5	10/30/2016	1603843	2.5	31	---	15	---	---		
AA2038-3-2-5	10/30/2016	1603843	2.5	13	---	8.0	---	---		
AA2038-4-0-5	10/30/2016	1603843	0.5	27	---	10	---	---		
AA2038-4-2-5	10/30/2016	1603843	2.5	16	---	13	---	---		
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	20	---	9.8	---	---		
AA2249-1-0-5	10/30/2016	1603843	0.5	21	---	12	---	---		
AA2249-1-2-5	10/30/2016	1603843	2.5	24	---	14	---	---		
AA2249-2-0-5	10/30/2016	1603843	0.5	33	---	12	---	---		
AA2249-2-2-5	10/30/2016	1603843	2.5	22	---	19	---	---		
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	35	---	13	---	---		
FS-2-0-5	10/23/2016	1603435	0.5	31	---	14	---	---		
IM-1-2-5	10/30/2016	1603842	2.5	20	---	6.7	---	---		
IM-2-2-5	10/30/2016	1603842	2.5	20	---	35	---	---		
IM-2b-0-5	11/23/2016	1604246	0.5	4.6	---	160	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	100	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	17	---	150	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5 DUP	10/30/2016	1603842	0.5	25	---	74	---	---		
IM-3c-0-5	11/23/2016	1604246	0.5	22	---	61	---	---		
IM-3c-2-5	11/23/2016	1604246	2.5	66	X	---	---	---	Perform laboratory analysis for STLC for arsenic	
				22	---	---	---	---		

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments		
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B					
				TTLc	mg/kg	STLc	mg/L	TTLc		mg/kg	STLc	mg/L	TCLP	mg/L
Screening Level: Units:											
IM-3c-3.5	11/23/2016	1604246	3.5	12	16	5.0	5.0	80	5.0		
IM-4-0.5	10/30/2016	1603842	0.5	16				66			
IM-4-2.5	10/30/2016	1603842	2.5	20				22			
IM-5-0.5	10/30/2016	1603842	0.5	29				54			
IM-5-2.5	10/30/2016	1603842	2.5	22				40			
IM-5d-0.5	11/23/2016	1604246	0.5	24							
IM-5d-3.5	11/23/2016	1604246	3.5	14							
IM-6-0.5	10/30/2016	1603842	0.5	12				36			
CRA-2-0.5	10/30/2016	1603842	0.5	3.6				110	X		Perform laboratory analysis for STLc for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5				140	X		Perform laboratory analysis for STLc for lead
CRA-2b-0.5	11/22/2016	1604231	0.5					89	X		Perform laboratory analysis for STLc for lead
CRA-2b-2.5	11/22/2016	1604231	2.5					720	X		Perform laboratory analysis for STLc for lead
CRA-2c-3.5	11/22/2016	1604231	3.5					120	X		Perform laboratory analysis for STLc for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16				55			
CR1-2-0.5	10/30/2016	1603842	0.5	4.1				100	X		Perform laboratory analysis for STLc for lead
CR1-2d-0.5	11/23/2016	1604246	0.5					120	X		Perform laboratory analysis for STLc for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9				130	X		Perform laboratory analysis for STLc for lead
CR1-4b-0.5	11/23/2016	1604246	0.5					350	X		Perform laboratory analysis for STLc for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3				170	X		Perform laboratory analysis for STLc for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23				310	X		Perform laboratory analysis for STLc for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15				18			
CR1-5b-0.25	11/23/2016	1604246	0.25	13				190	X		Perform laboratory analysis for STLc for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13				180	X		Perform laboratory analysis for STLc for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32				630	X		Perform laboratory analysis for STLc for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19				140	X		Perform laboratory analysis for STLc for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6				91	X		Perform laboratory analysis for STLc for lead
P15-0.5	10/30/2016	1603842	0.5	3.4				90	X		Perform laboratory analysis for STLc for lead
P15-2.5	10/30/2016	1603842	2.5	2.9				140	X		Perform laboratory analysis for STLc for lead
P15a-2.5	11/22/2016	1604231	2.5					150	X		Perform laboratory analysis for STLc for lead
P15b-0.5	11/22/2016	1604231	0.5					190	X		Perform laboratory analysis for STLc for lead
P15d-0.5	11/22/2016	1604231	0.5					140	X		Perform laboratory analysis for STLc for lead
P15d-2.5	11/22/2016	1604231	2.5					440	X		Perform laboratory analysis for STLc for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5					110	X		Perform laboratory analysis for STLc for lead
P16-0.5	10/30/2016	1603842	0.5	2.9				110	X		Perform laboratory analysis for STLc for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1				84	X		Perform laboratory analysis for STLc for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1				110	X		Perform laboratory analysis for STLc for lead
Q15a-2.5	11/22/2016	1604231	2.5					4200	X		Perform laboratory analysis for STLc for lead
Q15a-3.5	11/22/2016	1604231	3.5					190	X		Perform laboratory analysis for STLc for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5					280	X		Perform laboratory analysis for STLc for lead
R15-0.25	11/22/2016	1604231	0.25					95	X		Perform laboratory analysis for STLc for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Screening Level:				12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



November 08, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603735
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/08/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA828-2-0.5	1603735-01	Soil	10/23/16 7:30	10/23/16 16:50
AA828-2-2.5	1603735-02	Soil	10/23/16 7:40	10/23/16 16:50
AA828-3-0.5	1603735-03	Soil	10/23/16 7:50	10/23/16 16:50
AA828-3-2.5	1603735-04	Soil	10/23/16 8:00	10/23/16 16:50
AA828-1-0.5	1603735-05	Soil	10/23/16 8:05	10/23/16 16:50
AA828-1-2.5	1603735-06	Soil	10/23/16 8:10	10/23/16 16:50
AA651/683-5-0.5	1603735-07	Soil	10/23/16 8:40	10/23/16 16:50
AA651/683-5-2.5	1603735-08	Soil	10/23/16 8:45	10/23/16 16:50
AA651/683-6-0.5	1603735-09	Soil	10/23/16 8:14	10/23/16 16:50
AA651/683-6-2.5	1603735-10	Soil	10/23/16 8:17	10/23/16 16:50
AA651/683-1-0.5	1603735-11	Soil	10/23/16 8:20	10/23/16 16:50
AA651/683-1-2.5	1603735-12	Soil	10/23/16 8:30	10/23/16 16:50
AA651/683-4-0.5	1603735-13	Soil	10/23/16 8:50	10/23/16 16:50
AA651/683-4-2.5	1603735-14	Soil	10/23/16 9:00	10/23/16 16:50
AA651/683-3-0.5	1603735-15	Soil	10/23/16 9:07	10/23/16 16:50
AA651/683-3-2.5	1603735-16	Soil	10/23/16 9:15	10/23/16 16:50
AA651/683-2-0.5	1603735-17	Soil	10/23/16 9:22	10/23/16 16:50
AA651/683-2-2.5	1603735-18	Soil	10/23/16 9:30	10/23/16 16:50
FS-2-0.5	1603735-19	Soil	10/23/16 9:55	10/23/16 16:50
FS-2-2.5	1603735-20	Soil	10/23/16 10:00	10/23/16 16:50
FS-3-0.5	1603735-21	Soil	10/23/16 9:55	10/23/16 16:50
FS-3-2.5	1603735-22	Soil	10/23/16 10:00	10/23/16 16:50
FS-4-0.5	1603735-23	Soil	10/23/16 10:10	10/23/16 16:50
FS-4-2.5	1603735-24	Soil	10/23/16 10:20	10/23/16 16:50
FS-1-0.5	1603735-25	Soil	10/23/16 10:30	10/23/16 16:50
FS-1-2.5	1603735-26	Soil	10/23/16 10:40	10/23/16 16:50
AA955-4-0.5	1603735-27	Soil	10/23/16 10:50	10/23/16 16:50
AA955-4-2.5	1603735-28	Soil	10/23/16 11:00	10/23/16 16:50
AA955-5-0.5	1603735-29	Soil	10/23/16 11:15	10/23/16 16:50
AA955-5-2.5	1603735-30	Soil	10/23/16 11:25	10/23/16 16:50
AA955-6-0.5	1603735-31	Soil	10/23/16 12:20	10/23/16 16:50
AA955-6-2.5	1603735-32	Soil	10/23/16 12:30	10/23/16 16:50
AA955-3-0.5	1603735-33	Soil	10/23/16 12:45	10/23/16 16:50
AA955-3-2.5	1603735-34	Soil	10/23/16 12:55	10/23/16 16:50
AA955-2-0.5	1603735-35	Soil	10/23/16 13:05	10/23/16 16:50
AA955-2-2.5	1603735-36	Soil	10/23/16 13:10	10/23/16 16:50
AA955-1-0.5	1603735-37	Soil	10/23/16 13:20	10/23/16 16:50



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

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AA955-1-2.5	1603735-38	Soil	10/23/16 13:30	10/23/16 16:50
AA2573-1-0.5	1603735-39	Soil	10/23/16 13:40	10/23/16 16:50
AA2573-1-2.5	1603735-40	Soil	10/23/16 13:50	10/23/16 16:50
AA2573-5-0.5	1603735-41	Soil	10/23/16 14:05	10/23/16 16:50
AA2573-5-2.5	1603735-42	Soil	10/23/16 14:10	10/23/16 16:50
AA2573-3-0.5	1603735-43	Soil	10/23/16 14:30	10/23/16 16:50
AA2573-3-2.5	1603735-44	Soil	10/23/16 14:40	10/23/16 16:50
AA2573-4-0.5	1603735-45	Soil	10/23/16 14:15	10/23/16 16:50
AA2573-4-2.5	1603735-46	Soil	10/23/16 14:20	10/23/16 16:50
EB-11-10/23/16	1603735-47	Water	10/23/16 15:10	10/23/16 16:50
AA651/683-2-2.5 Duplicate	1603735-48	Soil	10/23/16 9:30	10/23/16 16:50
AA955-2-2.5 Duplicate	1603735-49	Soil	10/23/16 13:10	10/23/16 16:50
AA651/683-3-0.5 Duplicate	1603735-50	Soil	10/23/16 9:07	10/23/16 16:50
AA955-3-0.5 Duplicate	1603735-51	Soil	10/23/16 12:45	10/23/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA828-2-0.5

Lab ID: 1603735-01

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:40	
Lead	2.5	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:40	



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Client Sample ID AA828-2-2.5

Lab ID: 1603735-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:35	
Lead	1.6	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:35	



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Reported : 11/08/2016

Client Sample ID AA828-3-0.5

Lab ID: 1603735-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:41	
Lead	1.6	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:41	



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Reported : 11/08/2016

Client Sample ID AA828-3-2.5

Lab ID: 1603735-04

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:39	
Lead	1.1	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:39	



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Reported : 11/08/2016

Client Sample ID AA828-1-0.5

Lab ID: 1603735-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:42	
Lead	3.8	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:42	



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Reported : 11/08/2016

Client Sample ID AA828-1-2.5

Lab ID: 1603735-06

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:40	
Lead	2.6	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:40	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA651/683-5-0.5

Lab ID: 1603735-07

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:43	
Lead	1.6	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:43	



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Client Sample ID AA651/683-5-2.5

Lab ID: 1603735-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.3	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 17:05	
Lead	1.0	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 17:05	J



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Client Sample ID AA651/683-6-0.5

Lab ID: 1603735-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:44	
Lead	1.9	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:44	



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Client Sample ID AA651/683-6-2.5

Lab ID: 1603735-10

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:42	
Lead	1.4	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:42	



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Client Sample ID AA651/683-1-0.5

Lab ID: 1603735-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:45	
Lead	2.3	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:45	



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Client Sample ID AA651/683-1-2.5

Lab ID: 1603735-12

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:43	
Lead	1.3	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:43	



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Client Sample ID AA651/683-4-0.5

Lab ID: 1603735-13

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:46	
Lead	6.6	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:46	



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Client Sample ID AA651/683-4-2.5

Lab ID: 1603735-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.8	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:47	
Lead	2.3	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:47	



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Client Sample ID AA651/683-3-0.5

Lab ID: 1603735-15

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6J0815	10/29/2016	10/31/16 14:47	
Lead	2.0	1.0	0.11	1	B6J0815	10/29/2016	10/31/16 14:47	



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Client Sample ID AA651/683-3-2.5

Lab ID: 1603735-16

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:48	
Lead	24	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:48	



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Client Sample ID AA651/683-2-0.5

Lab ID: 1603735-17

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 14:55	
Lead	5.6	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 14:55	



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Client Sample ID AA651/683-2-2.5

Lab ID: 1603735-18

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:49	
Lead	1.1	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:49	



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Client Sample ID FS-2-0.5

Lab ID: 1603735-19

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	2.0	1.4	2	B6J0816	10/29/2016	10/31/16 15:50	D5
Lead	6.7	2.0	0.22	2	B6J0816	10/29/2016	10/31/16 15:50	D5



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Client Sample ID FS-2-2.5

Lab ID: 1603735-20

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:50	
Lead	3.1	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:50	



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Client Sample ID FS-3-0.5

Lab ID: 1603735-21

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:00	
Lead	4.5	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:00	



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Client Sample ID FS-3-2.5

Lab ID: 1603735-22

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	2.0	1.4	2	B6K0047	11/02/2016	11/03/16 17:06	D5
Lead	3.3	2.0	0.22	2	B6K0047	11/02/2016	11/03/16 17:06	D5



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Client Sample ID FS-4-0.5

Lab ID: 1603735-23

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:01	
Lead	29	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:01	



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Client Sample ID FS-4-2.5

Lab ID: 1603735-24

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:53	
Lead	2.7	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:53	



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Client Sample ID FS-1-0.5

Lab ID: 1603735-25

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:07	
Lead	19	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:07	



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Client Sample ID FS-1-2.5

Lab ID: 1603735-26

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:54	
Lead	3.9	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:54	



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Client Sample ID AA955-4-0.5

Lab ID: 1603735-27

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:08	
Lead	3.2	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:08	



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Client Sample ID AA955-4-2.5

Lab ID: 1603735-28

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:55	
Lead	33	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:55	



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Client Sample ID AA955-5-0.5

Lab ID: 1603735-29

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:09	
Lead	3.8	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:09	



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Client Sample ID AA955-5-2.5

Lab ID: 1603735-30

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.82	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:56	J
Lead	2.7	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:56	



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Client Sample ID AA955-6-0.5

Lab ID: 1603735-31

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:10	
Lead	3.4	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:10	



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Client Sample ID AA955-6-2.5

Lab ID: 1603735-32

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B6K0047	11/02/2016	11/03/16 16:57	
Lead	2.1	1.0	0.11	1	B6K0047	11/02/2016	11/03/16 16:57	



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Client Sample ID AA955-3-0.5

Lab ID: 1603735-33

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:11	
Lead	6.3	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:11	



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Client Sample ID AA955-3-2.5

Lab ID: 1603735-34

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0048	11/02/2016	11/03/16 13:02	
Lead	7.4	1.0	0.11	1	B6K0048	11/02/2016	11/03/16 13:02	



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Client Sample ID AA955-2-0.5

Lab ID: 1603735-35

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.2	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:12	
Lead	5.5	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:12	



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Client Sample ID AA955-2-2.5

Lab ID: 1603735-36

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.6	1.0	0.70	1	B6K0048	11/02/2016	11/03/16 13:14	
Lead	5.4	1.0	0.11	1	B6K0048	11/02/2016	11/03/16 13:14	



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Client Sample ID AA955-1-0.5

Lab ID: 1603735-37

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.0	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:13	
Lead	4.0	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:13	



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Client Sample ID AA955-1-2.5

Lab ID: 1603735-38

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.2	1.0	0.70	1	B6K0048	11/02/2016	11/03/16 13:18	
Lead	4.1	1.0	0.11	1	B6K0048	11/02/2016	11/03/16 13:18	



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Client Sample ID AA2573-1-0.5

Lab ID: 1603735-39

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:14	
Lead	13	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:14	



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Client Sample ID AA2573-1-2.5

Lab ID: 1603735-40

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6K0048	11/02/2016	11/03/16 13:29	
Lead	16	1.0	0.11	1	B6K0048	11/02/2016	11/03/16 13:29	



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Client Sample ID AA2573-5-0.5

Lab ID: 1603735-41

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.2	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:16	
Lead	13	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:16	



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Client Sample ID AA2573-5-2.5

Lab ID: 1603735-42

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0048	11/02/2016	11/03/16 13:32	
Lead	11	1.0	0.11	1	B6K0048	11/02/2016	11/03/16 13:32	



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Client Sample ID AA2573-3-0.5

Lab ID: 1603735-43

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6J0816	10/29/2016	10/31/16 15:17	
Lead	3.9	1.0	0.11	1	B6J0816	10/29/2016	10/31/16 15:17	



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Client Sample ID AA2573-3-2.5

Lab ID: 1603735-44

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0048	11/02/2016	11/03/16 13:35	
Lead	3.5	1.0	0.11	1	B6K0048	11/02/2016	11/03/16 13:35	



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Client Sample ID AA2573-4-0.5

Lab ID: 1603735-45

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	2.0	1.4	2	B6J0816	10/29/2016	11/01/16 11:05	D5
Lead	6.5	2.0	0.22	2	B6J0816	10/29/2016	11/01/16 11:05	D5



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Client Sample ID AA2573-4-2.5

Lab ID: 1603735-46

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0048	11/02/2016	11/03/16 13:39	
Lead	4.9	1.0	0.11	1	B6K0048	11/02/2016	11/03/16 13:39	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
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Client Sample ID EB-11-10/23/16

Lab ID: 1603735-47

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6J0749	10/27/2016	10/28/16 10:54	
Lead	ND	0.0050	0.0028	1	B6J0749	10/27/2016	10/28/16 10:54	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
4,4'-DDE	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
4,4'-DDT	ND	0.05	0.004	1	B6J0756	10/27/2016	10/27/16 14:50	
Aldrin	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:50	
alpha-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:50	
alpha-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
beta-BHC	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Chlordane	ND	0.25	0.03	1	B6J0756	10/27/2016	10/27/16 14:50	
delta-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:50	
Dieldrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Endosulfan I	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Endosulfan II	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Endosulfan sulfate	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Endrin	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Endrin aldehyde	ND	0.05	0.006	1	B6J0756	10/27/2016	10/27/16 14:50	
Endrin ketone	ND	0.05	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
gamma-BHC	ND	0.02	0.004	1	B6J0756	10/27/2016	10/27/16 14:50	
gamma-Chlordane	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Heptachlor	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Heptachlor epoxide	ND	0.02	0.005	1	B6J0756	10/27/2016	10/27/16 14:50	
Methoxychlor	ND	0.25	0.004	1	B6J0756	10/27/2016	10/27/16 14:50	
Toxaphene	ND	2.5	0.23	1	B6J0756	10/27/2016	10/27/16 14:50	
Surrogate: Decachlorobiphenyl	23.6 %		7 - 127		B6J0756	10/27/2016	10/27/16 14:50	
Surrogate: Tetrachloro-m-xylene	41.5 %		14 - 122		B6J0756	10/27/2016	10/27/16 14:50	



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Client Sample ID EB-11-10/23/16

Lab ID: 1603735-47

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1221	ND	1.0	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1232	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1242	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1248	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1254	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1260	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1262	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
Aroclor 1268	ND	0.50	0.06	1	B6J0756	10/27/2016	10/28/16 13:51	
<i>Surrogate: Decachlorobiphenyl</i>	<i>35.5 %</i>		<i>7 - 127</i>		B6J0756	10/27/2016	<i>10/28/16 13:51</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>59.3 %</i>		<i>14 - 122</i>		B6J0756	10/27/2016	<i>10/28/16 13:51</i>	



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Client Sample ID AA651/683-2-2.5 Duplicate
Lab ID: 1603735-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:32	
Lead	1.5	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:32	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
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Client Sample ID AA955-2-2.5 Duplicate

Lab ID: 1603735-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:35	
Lead	5.4	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:35	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/08/2016

Client Sample ID AA651/683-3-0.5 Duplicate
Lab ID: 1603735-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:39	
Lead	2.6	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:39	



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Client Sample ID AA955-3-0.5 Duplicate

Lab ID: 1603735-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0210	11/05/2016	11/07/16 15:43	
Lead	5.6	1.0	0.11	1	B6K0210	11/05/2016	11/07/16 15:43	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0749 - EPA 3010A_W

Blank (B6J0749-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6J0749-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	0.916230	0.010	1.00000		91.6	80 - 120			
Lead	0.944383	0.0050	1.00000		94.4	80 - 120			

Duplicate (B6J0749-DUP1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6J0749-MS1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.22285	0.010	2.50000	ND	88.9	74 - 123			
Lead	2.27123	0.0050	2.50000	ND	90.8	78 - 109			

Matrix Spike Dup (B6J0749-MSD1)

Source: 1603691-01

Prepared: 10/27/2016 Analyzed: 10/28/2016

Arsenic	2.28565	0.010	2.50000	ND	91.4	74 - 123	2.79	20	
Lead	2.33496	0.0050	2.50000	ND	93.4	78 - 109	2.77	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0815 - EPA 3050B_S

Blank (B6J0815-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0815-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	46.8478	1.0	50.0000		93.7	80 - 120			
Lead	48.9144	1.0	50.0000		97.8	80 - 120			

Duplicate (B6J0815-DUP1)

Source: 1603734-11

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	3.11373	1.0		2.54242	NR		20.2	20	R
Lead	2.64245	1.0		2.97029	NR		11.7	20	

Matrix Spike (B6J0815-MS1)

Source: 1603734-11

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	82.7332	1.0	125.000	2.54242	64.2	59 - 103			
Lead	82.7804	1.0	125.000	2.97029	63.8	34 - 129			

Matrix Spike Dup (B6J0815-MSD1)

Source: 1603734-11

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	89.0852	1.0	125.000	2.54242	69.2	59 - 103	7.39	20	
Lead	89.8404	1.0	125.000	2.97029	69.5	34 - 129	8.18	20	



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Report To : John Nordenstam
Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0816 - EPA 3050B_S

Blank (B6J0816-BLK1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6J0816-BS1)

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	47.4602	1.0	50.0000		94.9	80 - 120			
Lead	49.1639	1.0	50.0000		98.3	80 - 120			

Duplicate (B6J0816-DUP1)

Source: 1603735-17

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	2.61699	1.0		2.53533	NR		3.17	20	
Lead	5.81365	1.0		5.57934	NR		4.11	20	

Matrix Spike (B6J0816-MS1)

Source: 1603735-17

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	77.2228	1.0	125.000	2.53533	59.7	59 - 103			
Lead	81.6278	1.0	125.000	5.57934	60.8	34 - 129			

Matrix Spike Dup (B6J0816-MSD1)

Source: 1603735-17

Prepared: 10/29/2016 Analyzed: 10/31/2016

Arsenic	76.9074	1.0	125.000	2.53533	59.5	59 - 103	0.409	20	
Lead	80.4086	1.0	125.000	5.57934	59.9	34 - 129	1.50	20	



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Report To : John Nordenstam
Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0047 - EPA 3050B_S

Blank (B6K0047-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0047-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	46.9480	1.0	50.0000		93.9	80 - 120			
Lead	49.1403	1.0	50.0000		98.3	80 - 120			

Duplicate (B6K0047-DUP1)

Source: 1603735-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	3.21167	1.0		2.58264	NR		21.7	20	R
Lead	1.61468	1.0		1.55013	NR		4.08	20	

Matrix Spike (B6K0047-MS1)

Source: 1603735-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	116.306	1.0	125.000	2.58264	91.0	59 - 103			
Lead	116.798	1.0	125.000	1.55013	92.2	34 - 129			

Matrix Spike Dup (B6K0047-MSD1)

Source: 1603735-02

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	108.699	1.0	125.000	2.58264	84.9	59 - 103	6.76	20	
Lead	108.975	1.0	125.000	1.55013	85.9	34 - 129	6.93	20	



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Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0048 - EPA 3050B_S

Blank (B6K0048-BLK1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0048-BS1)

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	41.4327	1.0	50.0000		82.9	80 - 120			
Lead	44.8535	1.0	50.0000		89.7	80 - 120			

Duplicate (B6K0048-DUP1)

Source: 1603735-34

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	1.57873	1.0		1.38620	NR		13.0	20	
Lead	7.50660	1.0		7.37500	NR		1.77	20	

Matrix Spike (B6K0048-MS1)

Source: 1603735-34

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	91.7844	1.0	125.000	1.38620	72.3	59 - 103			
Lead	101.568	1.0	125.000	7.37500	75.4	34 - 129			

Matrix Spike Dup (B6K0048-MSD1)

Source: 1603735-34

Prepared: 11/2/2016 Analyzed: 11/3/2016

Arsenic	98.4948	1.0	125.000	1.38620	77.7	59 - 103	7.05	20	
Lead	110.134	1.0	125.000	7.37500	82.2	34 - 129	8.09	20	



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Report To : John Nordenstam
Reported : 11/08/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0210 - EPA 3050B_S

Blank (B6K0210-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.178046	1.0			NR				J

LCS (B6K0210-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	43.2665	1.0	50.0000		86.5	80 - 120			
Lead	48.1315	1.0	50.0000		96.3	80 - 120			

Duplicate (B6K0210-DUP1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	4.71497	1.0		3.84095	NR		20.4	20	R
Lead	1.44785	1.0		1.04040	NR		32.8	20	R

Matrix Spike (B6K0210-MS1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	111.199	1.0	125.000	3.84095	85.9	59 - 103			
Lead	115.917	1.0	125.000	1.04040	91.9	34 - 129			

Matrix Spike Dup (B6K0210-MSD1)

Source: 1603727-49

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	108.492	1.0	125.000	3.84095	83.7	59 - 103	2.46	20	
Lead	113.096	1.0	125.000	1.04040	89.6	34 - 129	2.46	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



Certificate of Analysis

TRC
9685 Research Drive
Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

Blank (B6J0756-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Methoxychlor [2C]	ND	0.25			NR			
Toxaphene	ND	2.5			NR			
Toxaphene [2C]	ND	2.5			NR			
Surrogate: Decachlorobiphenyl	0.3321		0.500000		66.4	7 - 127		
Surrogate: Decachlorobiphenyl [2C]	0.3389		0.500000		67.8	7 - 127		
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000		77.2	14 - 122		
Surrogate: Tetrachloro-m-xylene [2C]	0.4132		0.500000		82.6	14 - 122		

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.389980	0.05	0.500000		78.0	59 - 109		
4,4'-DDD [2C]	0.400360	0.05	0.500000		80.1	59 - 109		
4,4'-DDE	0.382070	0.05	0.500000		76.4	63 - 101		
4,4'-DDE [2C]	0.393755	0.05	0.500000		78.8	63 - 101		
4,4'-DDT	0.312965	0.05	0.500000		62.6	36 - 96		
4,4'-DDT [2C]	0.306415	0.05	0.500000		61.3	36 - 96		
Aldrin	0.395040	0.02	0.500000		79.0	64 - 96		
Aldrin [2C]	0.405005	0.02	0.500000		81.0	64 - 96		
alpha-BHC	0.393195	0.02	0.500000		78.6	63 - 92		
alpha-BHC [2C]	0.408610	0.02	0.500000		81.7	63 - 92		
alpha-Chlordane	0.381445	0.02	0.500000		76.3	63 - 101		
alpha-Chlordane [2C]	0.387965	0.02	0.500000		77.6	63 - 101		
beta-BHC	0.383430	0.02	0.500000		76.7	58 - 95		
beta-BHC [2C]	0.397770	0.02	0.500000		79.6	58 - 95		
delta-BHC	0.279005	0.02	0.500000		55.8	37 - 107		
delta-BHC [2C]	0.286245	0.02	0.500000		57.2	37 - 107		
Dieldrin	0.397825	0.05	0.500000		79.6	62 - 102		
Dieldrin [2C]	0.400380	0.05	0.500000		80.1	62 - 102		
Endosulfan I	0.380945	0.02	0.500000		76.2	61 - 97		
Endosulfan I [2C]	0.389895	0.02	0.500000		78.0	61 - 97		
Endosulfan II	0.380440	0.05	0.500000		76.1	61 - 103		
Endosulfan II [2C]	0.377870	0.05	0.500000		75.6	61 - 103		
Endosulfan sulfate	0.334510	0.05	0.500000		66.9	60 - 112		
Endosulfan Sulfate [2C]	0.338545	0.05	0.500000		67.7	60 - 112		
Endrin	0.442345	0.05	0.500000		88.5	62 - 103		
Endrin [2C]	0.452120	0.05	0.500000		90.4	62 - 103		
Endrin aldehyde	0.361285	0.05	0.500000		72.3	64 - 116		
Endrin aldehyde [2C]	0.372550	0.05	0.500000		74.5	64 - 116		
Endrin ketone	0.346515	0.05	0.500000		69.3	56 - 113		
Endrin ketone [2C]	0.349980	0.05	0.500000		70.0	56 - 113		
gamma-BHC	0.401575	0.02	0.500000		80.3	64 - 95		
gamma-BHC [2C]	0.413670	0.02	0.500000		82.7	64 - 95		



Certificate of Analysis

TRC
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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS (B6J0756-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

gamma-Chlordane	0.379495	0.02	0.500000		75.9	64 - 99			
gamma-Chlordane [2C]	0.386585	0.02	0.500000		77.3	64 - 99			
Heptachlor	0.401695	0.02	0.500000		80.3	64 - 93			
Heptachlor [2C]	0.406790	0.02	0.500000		81.4	64 - 93			
Heptachlor epoxide	0.389420	0.02	0.500000		77.9	65 - 98			
Heptachlor epoxide [2C]	0.396635	0.02	0.500000		79.3	65 - 98			
Methoxychlor	0.326050	0.25	0.500000		65.2	0 - 141			
Methoxychlor [2C]	0.329225	0.25	0.500000		65.8	0 - 141			
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3537</i>		<i>0.500000</i>		<i>70.7</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3480</i>		<i>0.500000</i>		<i>69.6</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.3958</i>		<i>0.500000</i>		<i>79.2</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4328</i>		<i>0.500000</i>		<i>86.6</i>	<i>14 - 122</i>			

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

4,4'-DDD	0.382190	0.05	0.500000		76.4	59 - 109	2.02	20	
4,4'-DDD [2C]	0.396440	0.05	0.500000		79.3	59 - 109	0.984	20	
4,4'-DDE	0.374120	0.05	0.500000		74.8	63 - 101	2.10	20	
4,4'-DDE [2C]	0.388570	0.05	0.500000		77.7	63 - 101	1.33	20	
4,4'-DDT	0.301065	0.05	0.500000		60.2	36 - 96	3.88	20	
4,4'-DDT [2C]	0.295700	0.05	0.500000		59.1	36 - 96	3.56	20	
Aldrin	0.387615	0.02	0.500000		77.5	64 - 96	1.90	20	
Aldrin [2C]	0.401730	0.02	0.500000		80.3	64 - 96	0.812	20	
alpha-BHC	0.384635	0.02	0.500000		76.9	63 - 92	2.20	20	
alpha-BHC [2C]	0.401870	0.02	0.500000		80.4	63 - 92	1.66	20	
alpha-Chlordane	0.373095	0.02	0.500000		74.6	63 - 101	2.21	20	
alpha-Chlordane [2C]	0.383550	0.02	0.500000		76.7	63 - 101	1.14	20	
beta-BHC	0.374495	0.02	0.500000		74.9	58 - 95	2.36	20	
beta-BHC [2C]	0.391100	0.02	0.500000		78.2	58 - 95	1.69	20	
delta-BHC	0.273035	0.02	0.500000		54.6	37 - 107	2.16	20	
delta-BHC [2C]	0.281320	0.02	0.500000		56.3	37 - 107	1.74	20	
Dieldrin	0.389230	0.05	0.500000		77.8	62 - 102	2.18	20	
Dieldrin [2C]	0.395445	0.05	0.500000		79.1	62 - 102	1.24	20	
Endosulfan I	0.373770	0.02	0.500000		74.8	61 - 97	1.90	20	
Endosulfan I [2C]	0.385820	0.02	0.500000		77.2	61 - 97	1.05	20	
Endosulfan II	0.371020	0.05	0.500000		74.2	61 - 103	2.51	20	
Endosulfan II [2C]	0.370560	0.05	0.500000		74.1	61 - 103	1.95	20	
Endosulfan sulfate	0.323020	0.05	0.500000		64.6	60 - 112	3.49	20	
Endosulfan Sulfate [2C]	0.319495	0.05	0.500000		63.9	60 - 112	5.79	20	
Endrin	0.427475	0.05	0.500000		85.5	62 - 103	3.42	20	
Endrin [2C]	0.441245	0.05	0.500000		88.2	62 - 103	2.43	20	
Endrin aldehyde	0.352420	0.05	0.500000		70.5	64 - 116	2.48	20	



Certificate of Analysis

TRC
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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/08/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Endrin aldehyde [2C]	0.364575	0.05	0.500000		72.9	64 - 116	2.16	20	
Endrin ketone	0.334495	0.05	0.500000		66.9	56 - 113	3.53	20	
Endrin ketone [2C]	0.326635	0.05	0.500000		65.3	56 - 113	6.90	20	
gamma-BHC	0.392935	0.02	0.500000		78.6	64 - 95	2.17	20	
gamma-BHC [2C]	0.407880	0.02	0.500000		81.6	64 - 95	1.41	20	
gamma-Chlordane	0.371900	0.02	0.500000		74.4	64 - 99	2.02	20	
gamma-Chlordane [2C]	0.382560	0.02	0.500000		76.5	64 - 99	1.05	20	
Heptachlor	0.394790	0.02	0.500000		79.0	64 - 93	1.73	20	
Heptachlor [2C]	0.403430	0.02	0.500000		80.7	64 - 93	0.829	20	
Heptachlor epoxide	0.382100	0.02	0.500000		76.4	65 - 98	1.90	20	
Heptachlor epoxide [2C]	0.393685	0.02	0.500000		78.7	65 - 98	0.747	20	
Methoxychlor	0.311510	0.25	0.500000		62.3	0 - 141	4.56	20	
Methoxychlor [2C]	0.300570	0.25	0.500000		60.1	0 - 141	9.10	20	
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3365</i>		<i>0.500000</i>		<i>67.3</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.3304</i>		<i>0.500000</i>		<i>66.1</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.3868</i>		<i>0.500000</i>		<i>77.4</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.4238</i>		<i>0.500000</i>		<i>84.8</i>	<i>14 - 122</i>			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W

Blank (B6J0756-BLK1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.3321		0.500000	66.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3859		0.500000	77.2	14 - 122

Blank (B6J0756-BLK2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl	0.4919		0.500000	98.4	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4931		0.500000	98.6	14 - 122

LCS (B6J0756-BS1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96			
Aroclor 1260	ND	0.50			NR	64 - 106			

Surrogate: Decachlorobiphenyl	0.3537		0.500000	70.7	7 - 127
Surrogate: Tetrachloro-m-xylene	0.3958		0.500000	79.2	14 - 122

LCS (B6J0756-BS2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	4.15151	0.50	5.00000	83.0	68 - 96				
Aroclor 1260	4.42908	0.50	5.00000	88.6	64 - 106				

Surrogate: Decachlorobiphenyl	0.4784		0.500000	95.7	7 - 127
Surrogate: Tetrachloro-m-xylene	0.4737		0.500000	94.7	14 - 122

LCS Dup (B6J0756-BSD1)

Prepared: 10/27/2016 Analyzed: 10/27/2016

Aroclor 1016	ND	0.50			NR	68 - 96		20	
Aroclor 1260	ND	0.50			NR	64 - 106		20	

Surrogate: Decachlorobiphenyl	0.3365		0.500000	67.3	7 - 127
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Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/08/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0756 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6J0756-BSD1) - Continued

Prepared: 10/27/2016 Analyzed: 10/27/2016

Surrogate: Tetrachloro-m-xylene 0.3868 0.500000 77.4 14 - 122

LCS Dup (B6J0756-BSD2)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016 4.39845 0.50 5.00000 88.0 68 - 96 5.78 20

Aroclor 1260 4.68570 0.50 5.00000 93.7 64 - 106 5.63 20

Surrogate: Decachlorobiphenyl 0.4810 0.500000 96.2 7 - 127

Surrogate: Tetrachloro-m-xylene 0.4868 0.500000 97.4 14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/08/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

Company: **TRC Solutions Inc** Address: **9685 Research** Tel: **949-341-7467**
City: **Irvine** State: **CA** Zip: **92618** Fax: **949-727-7311**

Attn: **John Nordenstem** Email: **nordenstem@trcsolutions.com**
Company: **TRC Solutions Inc**
Address: **9685 Research**
City: **Irvine** State: **CA** Zip: **92618**

SEND REPORT TO: _____ Email: _____
SEND INVOICE TO: _____ Email: _____

Project Name: LAUSD - Roosevelt HS Quote No: E161131		Special Instructions/Comments:	
ITEM	Lab No.	Sample ID / Location	Time
1	1603735-11	AA651/683-1-0.5	10/23/16 0820
2	-12	AA651/683-1-2.5	10/23/16 0830
3	-13	AA651/683-4-0.5	10/23/16 0850
4	-14	AA651/683-4-2.5	10/23/16 0900
5	-15	AA651/683-3-0.5	10/23/16 0907
6	-16	AA651/683-3-2.5	10/23/16 0915
7	-17	AA651/683-2-0.5	10/23/16 0922
8	-18	AA651/683-2-2.5	10/23/16 0930
9	-19	FS-2-0.5	10/23/16 0955
10	-20	FS-2-2.5	10/23/16 1000

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)			
8015 (GRO)			
8015 (DRO)			
8270 (Semi-volatiles)			
8081 (Organochlorine Pesticides)			
8082 (PCBs)			
6010 / 7000 (Title 22 Metals)			
TO-15			
SOIL / SEDIMENT / SLUDGE			
SOLIDS / WIPE / FILTER			
WATER - DRINKING / GROUND			
WATER - STORM / WASTE			
AQUEOUS / LAYERED - OIL			

Material	Container	QA/QC
5-Liter: 1-Tube, 2-Vials, 3-Liter, 4-Pint, 5-Gal: 6-Tedlar, 7-Canister		
Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-Ac		
5-Liter: 1-Ac, 2-HNO3, 3-H2SO4, 4-Ac		

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS SURRENCY Signature **ROSS SURRENCY** Signature

Submitter Print Name _____

Date: **10/23/16** Time: **1530**
Date: **10/23/16** Time: **1650**
Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) **Warren Howe** Date: **10/23/16** Time: **1530**
Relinquished by: (Signature and Printed Name) **John Nordenstem** Date: **10/23/16** Time: **1650**
Relinquished by: (Signature and Printed Name) **ROSS SURRENCY** Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 3 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	Condition <input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> 5. # OF SAMPLES MATCH LOC <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 6. PRESERVED <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 7. COOLER TEMP. deg C: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 8. SEALED <input type="checkbox"/> <input type="checkbox"/>

Company: TRC Solutions Inc	Address: 9685 Research Dr	Tel: 949-341-7461
City: Irvine	State: CA	Zip: 92618
Attn: John Nordenstrom	Email: john@trcsolutions.com	
Company: TRC Solutions Inc		
Address: 9685 Research Dr		
City: Irvine	State: CA	Zip: 92618

CUSTOMER

Project Name: LAUSD - Roosevelt HS		Quote No: E16131	Special Instructions/Comments:	
ITEM	Lab No.	Sample ID / Location	Date	Time
1	1603735-21	FS-3-0.5	10/23/16	0955
2	1603735-22	FS-3-2.5	10/23/16	1000
3	1603735-23	FS-4-0.5	10/23/16	1010
4	1603735-24	FS-4-2.5	10/23/16	1020
5	1603735-25	FS-4-0.5	10/23/16	1030
6	1603735-26	FS-4-2.5	10/23/16	1040
7	1603735-27	AA955-4-0.5	10/23/16	1050
8	1603735-28	AA955-4-2.5	10/23/16	1100
9	1603735-29	AA955-5-0.5	10/23/16	1115
10	1603735-30	AA955-5-2.5	10/23/16	1125

PROJECT SAMPLES

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)		SOIL / SEDIMENT / SLUDGE		Type: 1-Tube, 2-Vial, 3-Liter, 4-Pint, 5-Gal, 6-Tedlar, 7-Canister		Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-HCl, 5-Zn (Ac2), 6-NaOH, 7-NH4OH, 8-NH4SCN	<input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RW/QCB <input type="checkbox"/> Level IV
8015 (GRO)							
8015 (DRO)							
8270 (Semi-volatiles)							
8082 (PCBs)							
6010 / 7000 (Title 22 Metals)							
TO-15							
AS EPA 6010B							
Pb EPA 6010B							
PCBs							

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

ROSS SURENCY *ROSS SURENCY* Signature
Date: 10/23/16 Time: 1530

Relinquished by: (Signature and Printed Name)	Date: 10/23/16	Time: 1530
Relinquished by: (Signature and Printed Name)	Date: 10/23/16	Time: 1650
Relinquished by: (Signature and Printed Name)	Date: 10/23/16	Time: 1650

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: **TRC Solutions Inc** Address: **9685 Research Dr** Tel: **949 341-7476**
City: **Irvine** State: **CA** Zip: **92618** Fax: **949 727-7311**
Attn: **John Nordenstam** Email: **nordenstam@trcsolutions.com**
Company: **TRC Solutions**
Address: **9685 Research Dr**
City: **Irvine** State: **CA** Zip: **92618**

Project Name: **LAUSD - Roosevelt HS** Quote No: **E16131**
Project No: **265642.000 / TA02** PO #: **100816**
Sampler: **Warren Howe**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603735-41	AA 2573-5-0.5		10/23/16	1405
2	42	AA 2573-5-2.5		10/23/16	1410
3	43	AA 2573-3-0.5		10/23/16	1430
4	44	AA 2573-3-2.5		10/23/16	1440
5	45	AA 2573-4-0.5		10/23/16	1415
6	46	AA 2573-4-2.5		10/23/16	1420
7	47	EB-11-10/23/16		10/23/16	1510
8					
9					
10					

Special Instructions/Comments:

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: **Warren Howe** Date: **10/23/16** Time: **1530**
Relinquished by: **John Nordenstam** Date: **10/23/16** Time: **1650**
Relinquished by: **Warren Howe** Date: **10/23/16** Time: **1650**

Relinquished by: **Warren Howe** Date: **10/23/16** Time: **1530**
Relinquished by: **John Nordenstam** Date: **10/23/16** Time: **1650**
Relinquished by: **Warren Howe** Date: **10/23/16** Time: **1650**

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:35 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: RE: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 2.5 feet)

Rachelle,

For the requested analysis of soil samples collected at 2.5 feet (outlined in email chain below), please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 8, 2016 (21 samples at 2.5 feet)

- Sample D-9-2.5
- Sample G-13-2.5

Samples collected on October 9, 2016 (41 samples at 2.5 feet)

- Sample E-14-2.5
- Sample B-13-2.5
- Sample D-14-2.5
- Sample K-16-2.5

Samples collected on October 15, 2016 (26 samples at 2.5 feet)

- Sample H-5-2.5
- Sample D-12-2.5
- Sample MB-2-2.5

Samples collected on October 16, 2016 (41 samples at 2.5 feet)

- Sample AA653-3-2.5
- Sample UB-5-2.5
- Sample Q-4-2.5
- Sample AUD-8-2.5

Samples collected on October 22, 2016 (46 samples at 2.5 feet)

- Sample W-15-2.5
- Sample Y-12-2.5
- Sample Y-9-2.5
- Sample AA923-2-2.5
- Sample AA828-6-2.5

Samples collected on October 23, 2016 (39 samples at 2.5 feet)

- Sample AA651/683-2-2.5
- Sample AA955-2-2.5
- Sample AA831-4-2.5
- Sample C-8-2.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Maxwell, Jeff
Sent: Thursday, October 27, 2016 3:56 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Nordenstam, John <jnordenstam@trcsolutions.com>
Subject: LAUSD Roosevelt High School - Additional Analyses (Samples at 2.5 feet)

Rachelle,

Please analyze all soil samples collected at 2.5 feet (currently on hold) for Arsenic and Lead.

This applies to all locations where soil samples were collected at 0.5 feet (samples analyzed already) and 2.5 feet.

This does not apply to the following samples collected on October 22 – CL1-1, CL1-2, HL1-1, HL1-2, HL2-1, HL2-2, HL3-1, HL3-2, HL4-1, HL4-2, FILL 1, and FILL 2.

Please call me with any questions or clarifications.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Thursday, October 27, 2016 6:56 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Additional Analyses (Duplicate Samples at 0.5 feet)

Rachelle,

For the soil samples collected at 0.5 feet on October 22/23, 2016, please pull an aliquot from the following samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 22, 2016 (46 samples at 0.5 feet)

- Sample W-14-0.5
- Sample X-17-0.5
- Sample Y-8-0.5
- Sample AA923-1-0.5
- Sample AA828-5-0.5

Samples collected on October 23, 2016 (39 samples at 0.5 feet)

- Sample AA651/683-3-0.5
- Sample AA955-3-0.5
- Sample AA831-3-0.5
- Sample D-8-0.5

Please call me if you have any questions or need further clarification.

Thanks,

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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November 02, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603743

Client Reference : LAUSD Roosevelt HS PEA, 265642.0000 / TA02

Enclosed are the results for sample(s) received on October 24, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram to the left.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/02/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Composite A11	1603743-01	Soil	10/23/16 0:00	10/24/16 10:15
Composite A12	1603743-02	Soil	10/23/16 0:00	10/24/16 10:15
Composite A13	1603743-03	Soil	10/23/16 0:00	10/24/16 10:15
Composite A14	1603743-04	Soil	10/23/16 0:00	10/24/16 10:15
Composite A15	1603743-05	Soil	10/23/16 0:00	10/24/16 10:15
Composite D1	1603743-06	Soil	10/22/16 0:00	10/24/16 10:15
Composite D2	1603743-07	Soil	10/22/16 0:00	10/24/16 10:15
Composite D3	1603743-08	Soil	10/22/16 0:00	10/24/16 10:15
Composite D4	1603743-09	Soil	10/22/16 0:00	10/24/16 10:15
Composite D5	1603743-10	Soil	10/23/16 0:00	10/24/16 10:15
Composite D6	1603743-11	Soil	10/22/16 0:00	10/24/16 10:15
Composite D7	1603743-12	Soil	10/23/16 0:00	10/24/16 10:15
Composite D8	1603743-13	Soil	10/23/16 0:00	10/24/16 10:15
Composite D9	1603743-14	Soil	10/23/16 0:00	10/24/16 10:15
Composite D10	1603743-15	Soil	10/23/16 0:00	10/24/16 10:15
Composite D11	1603743-16	Soil	10/22/16 0:00	10/24/16 10:15
Composite D12	1603743-17	Soil	10/22/16 0:00	10/24/16 10:15
Composite E1	1603743-18	Soil	10/22/16 0:00	10/24/16 10:15
Composite E2	1603743-19	Soil	10/22/16 0:00	10/24/16 10:15
Composite E3	1603743-20	Soil	10/22/16 0:00	10/24/16 10:15
Composite E4	1603743-21	Soil	10/22/16 0:00	10/24/16 10:15
Composite E5	1603743-22	Soil	10/22/16 0:00	10/24/16 10:15
Composite E6	1603743-23	Soil	10/22/16 0:00	10/24/16 10:15
Composite E7	1603743-24	Soil	10/22/16 0:00	10/24/16 10:15
Composite E8	1603743-25	Soil	10/22/16 0:00	10/24/16 10:15
Composite A15 Duplicate	1603743-26	Soil	10/23/16 0:00	10/24/16 10:15
Composite D10 Duplicate	1603743-27	Soil	10/23/16 0:00	10/24/16 10:15
Composite E8 Duplicate	1603743-28	Soil	10/22/16 0:00	10/24/16 10:15

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite A11

Lab ID: 1603743-01

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 09:40	
4,4'-DDE [2C]	0.34	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:40	J
4,4'-DDT [2C]	0.48	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 09:40	J
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 09:40	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:40	
alpha-Chlordane [2C]	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:40	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 09:40	
Chlordane	1.2	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 09:40	J
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:40	
Dieldrin	0.46	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 09:40	J
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:40	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 09:40	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:40	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 09:40	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 09:40	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:40	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:40	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 09:40	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 09:40	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:40	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 09:40	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 09:40	
<i>Surrogate: Decachlorobiphenyl</i>	<i>45.9 %</i>		<i>27 - 123</i>		B6J0778	10/27/2016	<i>10/28/16 09:40</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>45.5 %</i>		<i>26 - 108</i>		B6J0778	10/27/2016	<i>10/28/16 09:40</i>	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/02/2016

Client Sample ID Composite A12

Lab ID: 1603743-02

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	0.36	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 09:50	J
4,4'-DDE	1.1	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:50	J
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 09:50	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 09:50	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:50	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:50	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 09:50	
Chlordane	1.9	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 09:50	J
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:50	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 09:50	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:50	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 09:50	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 09:50	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 09:50	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 09:50	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:50	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:50	
gamma-Chlordane	0.23	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 09:50	J
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 09:50	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 09:50	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 09:50	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 09:50	
<i>Surrogate: Decachlorobiphenyl</i>	<i>48.1 %</i>	<i>27 - 123</i>			B6J0778	10/27/2016	<i>10/28/16 09:50</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>47.3 %</i>	<i>26 - 108</i>			B6J0778	10/27/2016	<i>10/28/16 09:50</i>	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000
Report To : John Nordenstam
Reported : 11/02/2016

Client Sample ID Composite A13

Lab ID: 1603743-03

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:01	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:01	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 10:01	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 10:01	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:01	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:01	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:01	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 10:01	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:01	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 10:01	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:01	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:01	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:01	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:01	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 10:01	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:01	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:01	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:01	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 10:01	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:01	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 10:01	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 10:01	
Surrogate: Decachlorobiphenyl	42.1 %		27 - 123		B6J0778	10/27/2016	10/28/16 10:01	
Surrogate: Tetrachloro-m-xylene	45.0 %		26 - 108		B6J0778	10/27/2016	10/28/16 10:01	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite A14

Lab ID: 1603743-04

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:11	
4,4'-DDE	0.20	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:11	J
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 10:11	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 10:11	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:11	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:11	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:11	
Chlordane	1.5	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 10:11	J
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:11	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 10:11	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:11	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:11	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:11	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:11	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 10:11	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:11	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:11	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:11	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 10:11	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:11	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 10:11	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 10:11	
<i>Surrogate: Decachlorobiphenyl</i>	<i>46.3 %</i>		<i>27 - 123</i>		B6J0778	10/27/2016	<i>10/28/16 10:11</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>49.0 %</i>		<i>26 - 108</i>		B6J0778	10/27/2016	<i>10/28/16 10:11</i>	



Certificate of Analysis

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Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite A15

Lab ID: 1603743-05

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:21	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:21	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 10:21	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 10:21	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:21	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:21	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:21	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 10:21	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:21	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 10:21	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:21	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:21	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:21	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:21	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 10:21	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:21	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:21	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:21	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 10:21	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:21	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 10:21	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 10:21	
Surrogate: Decachlorobiphenyl	41.8 %		27 - 123		B6J0778	10/27/2016	10/28/16 10:21	
Surrogate: Tetrachloro-m-xylene	45.2 %		26 - 108		B6J0778	10/27/2016	10/28/16 10:21	



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000
Report To : John Nordenstam
Reported : 11/02/2016

Client Sample ID Composite D1

Lab ID: 1603743-06

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:32	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:32	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 10:32	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 10:32	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:32	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:32	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:32	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 10:32	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:32	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 10:32	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:32	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:32	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:32	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:32	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 10:32	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:32	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:32	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:32	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 10:32	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:32	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 10:32	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 10:32	
Surrogate: Decachlorobiphenyl	30.6 %		27 - 123		B6J0778	10/27/2016	10/28/16 10:32	
Surrogate: Tetrachloro-m-xylene	31.2 %		26 - 108		B6J0778	10/27/2016	10/28/16 10:32	



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000
Report To : John Nordenstam
Reported : 11/02/2016

Client Sample ID Composite D2

Lab ID: 1603743-07

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:42	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:42	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 10:42	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 10:42	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:42	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:42	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:42	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 10:42	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:42	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 10:42	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:42	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:42	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:42	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:42	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 10:42	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:42	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:42	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:42	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 10:42	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:42	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 10:42	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 10:42	
Surrogate: Decachlorobiphenyl	25.8 %		27 - 123		B6J0778	10/27/2016	10/28/16 10:42	S2
Surrogate: Tetrachloro-m-xylene	25.5 %		26 - 108		B6J0778	10/27/2016	10/28/16 10:42	S2



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite D3

Lab ID: 1603743-08

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:53	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:53	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 10:53	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 10:53	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:53	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:53	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:53	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 10:53	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:53	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 10:53	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:53	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 10:53	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 10:53	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:53	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 10:53	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:53	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:53	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 10:53	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 10:53	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 10:53	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 10:53	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 10:53	
Surrogate: Decachlorobiphenyl	27.9 %		27 - 123		B6J0778	10/27/2016	10/28/16 10:53	
Surrogate: Tetrachloro-m-xylene	30.2 %		26 - 108		B6J0778	10/27/2016	10/28/16 10:53	



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000
Report To : John Nordenstam
Reported : 11/02/2016

Client Sample ID Composite D4

Lab ID: 1603743-09

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:03	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:03	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 11:03	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 11:03	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:03	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:03	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:03	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 11:03	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:03	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 11:03	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:03	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:03	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:03	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:03	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 11:03	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:03	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:03	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:03	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 11:03	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:03	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 11:03	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 11:03	
Surrogate: Decachlorobiphenyl	24.8 %		27 - 123		B6J0778	10/27/2016	10/28/16 11:03	S2
Surrogate: Tetrachloro-m-xylene	24.3 %		26 - 108		B6J0778	10/27/2016	10/28/16 11:03	S2



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite D5

Lab ID: 1603743-10

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:14	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:14	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 11:14	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 11:14	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:14	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:14	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:14	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 11:14	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:14	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 11:14	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:14	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:14	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:14	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:14	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 11:14	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:14	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:14	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:14	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 11:14	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:14	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 11:14	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 11:14	
Surrogate: Decachlorobiphenyl	22.5 %		27 - 123		B6J0778	10/27/2016	10/28/16 11:14	S2
Surrogate: Tetrachloro-m-xylene	26.1 %		26 - 108		B6J0778	10/27/2016	10/28/16 11:14	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/02/2016

Client Sample ID Composite D6

Lab ID: 1603743-11

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:24	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:24	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 11:24	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 11:24	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:24	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:24	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:24	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 11:24	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:24	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 11:24	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:24	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:24	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:24	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:24	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 11:24	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:24	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:24	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:24	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 11:24	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:24	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 11:24	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 11:24	
Surrogate: Decachlorobiphenyl	25.9 %		27 - 123		B6J0778	10/27/2016	10/28/16 11:24	S2
Surrogate: Tetrachloro-m-xylene	29.4 %		26 - 108		B6J0778	10/27/2016	10/28/16 11:24	



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite D7

Lab ID: 1603743-12

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:35	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:35	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 11:35	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 11:35	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:35	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:35	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:35	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 11:35	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:35	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 11:35	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:35	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:35	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:35	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:35	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 11:35	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:35	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:35	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:35	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 11:35	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:35	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 11:35	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 11:35	
Surrogate: Decachlorobiphenyl	22.1 %		27 - 123		B6J0778	10/27/2016	10/28/16 11:35	S2
Surrogate: Tetrachloro-m-xylene	24.9 %		26 - 108		B6J0778	10/27/2016	10/28/16 11:35	S2



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Client Sample ID Composite D8

Lab ID: 1603743-13

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:45	
4,4'-DDE [2C]	0.41	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:45	J
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 11:45	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 11:45	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:45	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:45	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:45	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 11:45	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:45	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 11:45	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:45	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:45	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:45	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:45	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 11:45	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:45	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:45	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:45	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 11:45	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:45	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 11:45	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 11:45	
<i>Surrogate: Decachlorobiphenyl</i>	<i>27.1 %</i>		<i>27 - 123</i>		B6J0778	10/27/2016	<i>10/28/16 11:45</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>33.1 %</i>		<i>26 - 108</i>		B6J0778	10/27/2016	<i>10/28/16 11:45</i>	



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Client Sample ID Composite D9

Lab ID: 1603743-14

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:56	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:56	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 11:56	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 11:56	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:56	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:56	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:56	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 11:56	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:56	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 11:56	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:56	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 11:56	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 11:56	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:56	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 11:56	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:56	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:56	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 11:56	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 11:56	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 11:56	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 11:56	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 11:56	
Surrogate: Decachlorobiphenyl	34.9 %		27 - 123		B6J0778	10/27/2016	10/28/16 11:56	
Surrogate: Tetrachloro-m-xylene	44.8 %		26 - 108		B6J0778	10/27/2016	10/28/16 11:56	



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Lab ID: 1603743-15

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:06	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:06	
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 12:06	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 12:06	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:06	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:06	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:06	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 12:06	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:06	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 12:06	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:06	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:06	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:06	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:06	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 12:06	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:06	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:06	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:06	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 12:06	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:06	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 12:06	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 12:06	
Surrogate: Decachlorobiphenyl	34.1 %		27 - 123		B6J0778	10/27/2016	10/28/16 12:06	
Surrogate: Tetrachloro-m-xylene	46.9 %		26 - 108		B6J0778	10/27/2016	10/28/16 12:06	



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Client Sample ID Composite D10

Lab ID: 1603743-15

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1221	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1232	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1242	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1248	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1254	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1260	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1262	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Aroclor 1268	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:22	
Surrogate: Decachlorobiphenyl	72.7 %		26 - 137		B6J0769	10/27/2016	10/28/16 14:22	
Surrogate: Tetrachloro-m-xylene	78.6 %		28 - 102		B6J0769	10/27/2016	10/28/16 14:22	



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Reported : 11/02/2016

Client Sample ID Composite D11

Lab ID: 1603743-16

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:17	
4,4'-DDE [2C]	0.39	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:17	J
4,4'-DDT	ND	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 12:17	
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 12:17	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:17	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:17	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:17	
Chlordane	ND	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 12:17	
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:17	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 12:17	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:17	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:17	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:17	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:17	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 12:17	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:17	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:17	
gamma-Chlordane	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:17	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 12:17	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:17	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 12:17	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 12:17	
<i>Surrogate: Decachlorobiphenyl</i>	<i>23.9 %</i>		<i>27 - 123</i>		B6J0778	10/27/2016	<i>10/28/16 12:17</i>	S2
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>31.6 %</i>		<i>26 - 108</i>		B6J0778	10/27/2016	<i>10/28/16 12:17</i>	



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Lab ID: 1603743-17

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 18:43	
4,4'-DDE	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:43	
4,4'-DDT	ND	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 18:43	
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 18:43	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:43	
alpha-Chlordane	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:43	
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 18:43	
Chlordane	ND	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 18:43	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:43	
Dieldrin	ND	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 18:43	
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:43	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 18:43	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:43	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 18:43	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 18:43	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:43	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:43	
gamma-Chlordane	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 18:43	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 18:43	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:43	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 18:43	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 18:43	
Surrogate: Decachlorobiphenyl	27.5 %		27 - 123		B6J0779	10/27/2016	10/28/16 18:43	
Surrogate: Tetrachloro-m-xylene	28.1 %		26 - 108		B6J0779	10/27/2016	10/28/16 18:43	



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Report To : John Nordenstam

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Client Sample ID Composite E1

Lab ID: 1603743-18

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 18:53	
4,4'-DDE [2C]	7.2	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:53	
4,4'-DDT [2C]	6.7	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 18:53	
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 18:53	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:53	
alpha-Chlordane	2.6	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:53	
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 18:53	
Chlordane	30	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 18:53	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:53	
Dieldrin [2C]	0.49	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 18:53	J
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:53	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 18:53	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 18:53	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 18:53	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 18:53	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:53	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:53	
gamma-Chlordane	3.0	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 18:53	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 18:53	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 18:53	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 18:53	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 18:53	
<i>Surrogate: Decachlorobiphenyl</i>	<i>42.2 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 18:53</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>42.7 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 18:53</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

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Client Sample ID Composite E2

Lab ID: 1603743-19

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:04	
4,4'-DDE [2C]	3.8	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:04	
4,4'-DDT [2C]	3.5	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 19:04	
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 19:04	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:04	
alpha-Chlordane	1.3	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:04	
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:04	
Chlordane [2C]	13	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 19:04	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:04	
Dieldrin [2C]	0.26	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 19:04	J
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:04	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:04	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:04	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:04	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 19:04	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:04	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:04	
gamma-Chlordane [2C]	1.2	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:04	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 19:04	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:04	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 19:04	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 19:04	
<i>Surrogate: Decachlorobiphenyl</i>	<i>44.1 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 19:04</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>42.5 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 19:04</i>	



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Client Sample ID Composite E3

Lab ID: 1603743-20

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:14	
4,4'-DDE [2C]	2.6	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:14	
4,4'-DDT [2C]	0.74	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 19:14	J
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 19:14	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:14	
alpha-Chlordane	2.1	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:14	
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:14	
Chlordane	20	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 19:14	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:14	
Dieldrin [2C]	0.28	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 19:14	J
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:14	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:14	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:14	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:14	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 19:14	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:14	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:14	
gamma-Chlordane	1.8	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:14	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 19:14	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:14	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 19:14	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 19:14	
Surrogate: Decachlorobiphenyl	36.6 %		27 - 123		B6J0779	10/27/2016	10/28/16 19:14	
Surrogate: Tetrachloro-m-xylene	39.5 %		26 - 108		B6J0779	10/27/2016	10/28/16 19:14	



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Client Sample ID Composite E4

Lab ID: 1603743-21

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:24	
4,4'-DDE [2C]	0.65	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:24	J
4,4'-DDT [2C]	1.5	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 19:24	J
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 19:24	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:24	
alpha-Chlordane	0.90	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:24	J
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:24	
Chlordane [2C]	9.2	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 19:24	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:24	
Dieldrin	ND	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 19:24	
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:24	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:24	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:24	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:24	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 19:24	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:24	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:24	
gamma-Chlordane [2C]	1.2	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:24	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 19:24	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:24	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 19:24	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 19:24	
<i>Surrogate: Decachlorobiphenyl</i>	<i>61.1 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 19:24</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>70.6 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 19:24</i>	



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Lab ID: 1603743-22

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	1.1	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:35	J
4,4'-DDE	1.9	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:35	J
4,4'-DDT [2C]	0.99	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 19:35	J
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 19:35	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:35	
alpha-Chlordane	2.3	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:35	
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:35	
Chlordane	29	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 19:35	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:35	
Dieldrin	ND	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 19:35	
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:35	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:35	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:35	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:35	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 19:35	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:35	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:35	
gamma-Chlordane	2.4	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:35	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 19:35	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:35	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 19:35	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 19:35	
<i>Surrogate: Decachlorobiphenyl</i>	<i>53.9 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 19:35</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>61.8 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 19:35</i>	



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Lab ID: 1603743-23

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	1.4	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:46	J
4,4'-DDE [2C]	3.4	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:46	
4,4'-DDT [2C]	1.4	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 19:46	J
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 19:46	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:46	
alpha-Chlordane	2.0	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:46	
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:46	
Chlordane	33	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 19:46	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:46	
Dieldrin	0.37	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 19:46	J
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:46	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:46	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:46	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:46	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 19:46	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:46	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:46	
gamma-Chlordane	3.1	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:46	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 19:46	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:46	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 19:46	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 19:46	
<i>Surrogate: Decachlorobiphenyl</i>	<i>54.9 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 19:46</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>66.0 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 19:46</i>	



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Report To : John Nordenstam
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Lab ID: 1603743-24

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:27	
4,4'-DDE	0.65	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:27	J
4,4'-DDT [2C]	0.32	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 12:27	J
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 12:27	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:27	
alpha-Chlordane	0.58	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:27	J
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:27	
Chlordane [2C]	5.8	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 12:27	J
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:27	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 12:27	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:27	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:27	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:27	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:27	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 12:27	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:27	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:27	
gamma-Chlordane [2C]	0.47	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:27	J
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 12:27	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:27	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 12:27	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 12:27	
<i>Surrogate: Decachlorobiphenyl</i>	<i>35.4 %</i>		<i>27 - 123</i>		B6J0778	10/27/2016	<i>10/28/16 12:27</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>43.8 %</i>		<i>26 - 108</i>		B6J0778	10/27/2016	<i>10/28/16 12:27</i>	



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Lab ID: 1603743-24

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1221	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1232	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1242	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1248	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1254	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1260	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1262	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Aroclor 1268	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:40	
Surrogate: Decachlorobiphenyl	71.5 %		26 - 137		B6J0769	10/27/2016	10/28/16 14:40	
Surrogate: Tetrachloro-m-xylene	77.5 %		28 - 102		B6J0769	10/27/2016	10/28/16 14:40	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite E8

Lab ID: 1603743-25

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:56	
4,4'-DDE [2C]	1.1	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:56	J
4,4'-DDT [2C]	0.75	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 19:56	J
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 19:56	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:56	
alpha-Chlordane	0.42	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:56	J
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:56	
Chlordane [2C]	3.9	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 19:56	J
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:56	
Dieldrin	ND	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 19:56	
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:56	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 19:56	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 19:56	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:56	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 19:56	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:56	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:56	
gamma-Chlordane [2C]	0.34	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 19:56	J
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 19:56	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 19:56	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 19:56	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 19:56	
<i>Surrogate: Decachlorobiphenyl</i>	<i>56.2 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 19:56</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>66.4 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 19:56</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/02/2016

Client Sample ID Composite A15 Duplicate Lab ID: 1603743-26

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 20:07	
4,4'-DDE [2C]	0.21	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:07	J
4,4'-DDT	ND	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 20:07	
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 20:07	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:07	
alpha-Chlordane	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:07	
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 20:07	
Chlordane	ND	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 20:07	
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:07	
Dieldrin	ND	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 20:07	
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:07	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 20:07	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:07	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 20:07	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 20:07	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:07	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:07	
gamma-Chlordane	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 20:07	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 20:07	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:07	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 20:07	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 20:07	
<i>Surrogate: Decachlorobiphenyl</i>	<i>60.2 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 20:07</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>71.5 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 20:07</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite D10 Duplicate

Lab ID: 1603743-27

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:38	
4,4'-DDE	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:38	
4,4'-DDT [2C]	0.22	2.0	0.13	1	B6J0778	10/27/2016	10/28/16 12:38	J
Aldrin	ND	1.0	0.27	1	B6J0778	10/27/2016	10/28/16 12:38	
alpha-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:38	
alpha-Chlordane	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:38	
beta-BHC	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:38	
Chlordane [2C]	1.1	8.5	0.90	1	B6J0778	10/27/2016	10/28/16 12:38	J
delta-BHC	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:38	
Dieldrin	ND	2.0	0.25	1	B6J0778	10/27/2016	10/28/16 12:38	
Endosulfan I	ND	1.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:38	
Endosulfan II	ND	2.0	0.22	1	B6J0778	10/27/2016	10/28/16 12:38	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0778	10/27/2016	10/28/16 12:38	
Endrin	ND	2.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:38	
Endrin aldehyde	ND	2.0	0.28	1	B6J0778	10/27/2016	10/28/16 12:38	
Endrin ketone	ND	2.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:38	
gamma-BHC	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:38	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B6J0778	10/27/2016	10/28/16 12:38	
Heptachlor	ND	1.0	0.19	1	B6J0778	10/27/2016	10/28/16 12:38	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0778	10/27/2016	10/28/16 12:38	
Methoxychlor	ND	5.0	0.18	1	B6J0778	10/27/2016	10/28/16 12:38	
Toxaphene	ND	50	8.2	1	B6J0778	10/27/2016	10/28/16 12:38	
<i>Surrogate: Decachlorobiphenyl</i>	<i>30.1 %</i>		<i>27 - 123</i>		B6J0778	10/27/2016	<i>10/28/16 12:38</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>37.4 %</i>		<i>26 - 108</i>		B6J0778	10/27/2016	<i>10/28/16 12:38</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite D10 Duplicate

Lab ID: 1603743-27

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1221	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1232	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1242	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1248	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1254	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1260	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1262	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Aroclor 1268	ND	16	1.5	1	B6J0769	10/27/2016	10/28/16 14:57	
Surrogate: Decachlorobiphenyl	54.8 %		26 - 137		B6J0769	10/27/2016	10/28/16 14:57	
Surrogate: Tetrachloro-m-xylene	64.0 %		28 - 102		B6J0769	10/27/2016	10/28/16 14:57	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 11/02/2016

Client Sample ID Composite E8 Duplicate

Lab ID: 1603743-28

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 20:17	
4,4'-DDE	0.87	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:17	J
4,4'-DDT	0.47	2.0	0.13	1	B6J0779	10/27/2016	10/28/16 20:17	J
Aldrin	ND	1.0	0.27	1	B6J0779	10/27/2016	10/28/16 20:17	
alpha-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:17	
alpha-Chlordane	0.80	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:17	J
beta-BHC	ND	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 20:17	
Chlordane [2C]	7.4	8.5	0.90	1	B6J0779	10/27/2016	10/28/16 20:17	J
delta-BHC	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:17	
Dieldrin	ND	2.0	0.25	1	B6J0779	10/27/2016	10/28/16 20:17	
Endosulfan I	ND	1.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:17	
Endosulfan II	ND	2.0	0.22	1	B6J0779	10/27/2016	10/28/16 20:17	
Endosulfan sulfate	ND	2.0	0.21	1	B6J0779	10/27/2016	10/28/16 20:17	
Endrin	ND	2.0	0.23	1	B6J0779	10/27/2016	10/28/16 20:17	
Endrin aldehyde	ND	2.0	0.28	1	B6J0779	10/27/2016	10/28/16 20:17	
Endrin ketone	ND	2.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:17	
gamma-BHC	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:17	
gamma-Chlordane	1.3	1.0	0.23	1	B6J0779	10/27/2016	10/28/16 20:17	
Heptachlor	ND	1.0	0.19	1	B6J0779	10/27/2016	10/28/16 20:17	
Heptachlor epoxide	ND	1.0	0.20	1	B6J0779	10/27/2016	10/28/16 20:17	
Methoxychlor	ND	5.0	0.18	1	B6J0779	10/27/2016	10/28/16 20:17	
Toxaphene	ND	50	8.2	1	B6J0779	10/27/2016	10/28/16 20:17	
<i>Surrogate: Decachlorobiphenyl</i>	<i>56.3 %</i>		<i>27 - 123</i>		B6J0779	10/27/2016	<i>10/28/16 20:17</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>66.0 %</i>		<i>26 - 108</i>		B6J0779	10/27/2016	<i>10/28/16 20:17</i>	



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Reported : 11/02/2016

QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0778 - GCSEMI_PCB/PEST_S

Blank (B6J0778-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	ND	2.0			NR
4,4'-DDD [2C]	ND	2.0			NR
4,4'-DDE	ND	2.0			NR
4,4'-DDE [2C]	ND	2.0			NR
4,4'-DDT	ND	2.0			NR
4,4'-DDT [2C]	ND	2.0			NR
Aldrin	ND	1.0			NR
Aldrin [2C]	ND	1.0			NR
alpha-BHC	ND	1.0			NR
alpha-BHC [2C]	ND	1.0			NR
alpha-Chlordane	ND	1.0			NR
alpha-Chlordane [2C]	ND	1.0			NR
beta-BHC	ND	1.0			NR
beta-BHC [2C]	ND	1.0			NR
Chlordane	ND	8.5			NR
Chlordane [2C]	ND	8.5			NR
delta-BHC	ND	1.0			NR
delta-BHC [2C]	ND	1.0			NR
Dieldrin	ND	2.0			NR
Dieldrin [2C]	ND	2.0			NR
Endosulfan I	ND	1.0			NR
Endosulfan I [2C]	ND	1.0			NR
Endosulfan II	ND	2.0			NR
Endosulfan II [2C]	ND	2.0			NR
Endosulfan sulfate	ND	2.0			NR
Endosulfan Sulfate [2C]	ND	2.0			NR
Endrin	ND	2.0			NR
Endrin [2C]	ND	2.0			NR
Endrin aldehyde	ND	2.0			NR
Endrin aldehyde [2C]	ND	2.0			NR
Endrin ketone	ND	2.0			NR
Endrin ketone [2C]	ND	2.0			NR
gamma-BHC	ND	1.0			NR
gamma-BHC [2C]	ND	1.0			NR
gamma-Chlordane	ND	1.0			NR
gamma-Chlordane [2C]	ND	1.0			NR
Heptachlor	ND	1.0			NR
Heptachlor [2C]	ND	1.0			NR
Heptachlor epoxide	ND	1.0			NR



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Reported : 11/02/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0778 - GCSEMI_PCB/PEST_S (continued)

Blank (B6J0778-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/28/2016

Heptachlor epoxide [2C]	ND	1.0			NR			
Methoxychlor	ND	5.0			NR			
Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>12.02</i>		<i>16.6667</i>		<i>72.1</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>11.97</i>		<i>16.6667</i>		<i>71.8</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.20</i>		<i>16.6667</i>		<i>79.2</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>14.04</i>		<i>16.6667</i>		<i>84.2</i>	<i>26 - 108</i>		

LCS (B6J0778-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	13.7133	2.0	16.6667		82.3	53 - 125		
4,4'-DDD [2C]	14.3393	2.0	16.6667		86.0	53 - 125		
4,4'-DDE	13.2092	2.0	16.6667		79.3	54 - 113		
4,4'-DDE [2C]	13.7637	2.0	16.6667		82.6	54 - 113		
4,4'-DDT	8.75483	2.0	16.6667		52.5	25 - 127		
4,4'-DDT [2C]	8.94933	2.0	16.6667		53.7	25 - 127		
Aldrin	13.5788	1.0	16.6667		81.5	59 - 107		
Aldrin [2C]	14.0727	1.0	16.6667		84.4	59 - 107		
alpha-BHC	13.4605	1.0	16.6667		80.8	59 - 104		
alpha-BHC [2C]	14.0902	1.0	16.6667		84.5	59 - 104		
alpha-Chlordane	13.1275	1.0	16.6667		78.8	54 - 110		
alpha-Chlordane [2C]	13.5632	1.0	16.6667		81.4	54 - 110		
beta-BHC	13.1477	1.0	16.6667		78.9	57 - 103		
beta-BHC [2C]	13.6872	1.0	16.6667		82.1	57 - 103		
delta-BHC	9.57833	1.0	16.6667		57.5	16 - 120		
delta-BHC [2C]	9.93083	1.0	16.6667		59.6	16 - 120		
Dieldrin	13.6972	2.0	16.6667		82.2	61 - 109		
Dieldrin [2C]	14.0418	2.0	16.6667		84.3	61 - 109		
Endosulfan I	13.0582	1.0	16.6667		78.3	60 - 106		
Endosulfan I [2C]	13.6612	1.0	16.6667		82.0	60 - 106		
Endosulfan II	13.2883	2.0	16.6667		79.7	59 - 108		
Endosulfan II [2C]	13.2653	2.0	16.6667		79.6	59 - 108		
Endosulfan sulfate	11.4798	2.0	16.6667		68.9	54 - 110		
Endosulfan Sulfate [2C]	11.9322	2.0	16.6667		71.6	54 - 110		
Endrin	14.8897	2.0	16.6667		89.3	63 - 112		
Endrin [2C]	15.7063	2.0	16.6667		94.2	63 - 112		
Endrin aldehyde	12.5417	2.0	16.6667		75.2	64 - 119		
Endrin aldehyde [2C]	13.1077	2.0	16.6667		78.6	64 - 119		
Endrin ketone	11.7913	2.0	16.6667		70.7	54 - 115		
Endrin ketone [2C]	12.0397	2.0	16.6667		72.2	54 - 115		



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Reported : 11/02/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B6J0778 - GCSEMI_PCB/PEST_S (continued)

LCS (B6J0778-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/28/2016

gamma-BHC	13.5923	1.0	16.6667		81.6	60 - 107			
gamma-BHC [2C]	14.1497	1.0	16.6667		84.9	60 - 107			
gamma-Chlordane	13.0280	1.0	16.6667		78.2	57 - 106			
gamma-Chlordane [2C]	13.4870	1.0	16.6667		80.9	57 - 106			
Heptachlor	13.3475	1.0	16.6667		80.1	54 - 114			
Heptachlor [2C]	13.6972	1.0	16.6667		82.2	54 - 114			
Heptachlor epoxide	13.3847	1.0	16.6667		80.3	61 - 106			
Heptachlor epoxide [2C]	13.8258	1.0	16.6667		83.0	61 - 106			
Methoxychlor	9.48533	5.0	16.6667		56.9	18 - 138			
Methoxychlor [2C]	9.70600	5.0	16.6667		58.2	18 - 138			
Surrogate: Decachlorobiphenyl	12.69		16.6667		76.1	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	12.44		16.6667		74.7	27 - 123			
Surrogate: Tetrachloro-m-xylene	13.83		16.6667		83.0	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	15.17		16.6667		91.0	26 - 108			

Duplicate (B6J0778-DUP1)

Source: 1603743-02

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	0.350333	2.0		0.312333	NR	11.5	20	J	
4,4'-DDD [2C]	0.396167	2.0		0.356167	NR	10.6	20	J	
4,4'-DDE	1.11283	2.0		1.08133	NR	2.87	20	J	
4,4'-DDE [2C]	1.18367	2.0		1.12600	NR	4.99	20	J	
4,4'-DDT	ND	2.0		ND	NR		20		
4,4'-DDT [2C]	ND	2.0		ND	NR		20		
Aldrin	ND	1.0		ND	NR		20		
Aldrin [2C]	ND	1.0		ND	NR		20		
alpha-BHC	ND	1.0		ND	NR		20		
alpha-BHC [2C]	ND	1.0		ND	NR		20		
alpha-Chlordane	ND	1.0		ND	NR		20		
alpha-Chlordane [2C]	0.229167	1.0		ND	NR		20	J	
beta-BHC	ND	1.0		ND	NR		20		
beta-BHC [2C]	ND	1.0		ND	NR		20		
delta-BHC	ND	1.0		ND	NR		20		
delta-BHC [2C]	ND	1.0		ND	NR		20		
Dieldrin	ND	2.0		ND	NR		20		
Dieldrin [2C]	ND	2.0		ND	NR		20		
Endosulfan I	ND	1.0		ND	NR		20		
Endosulfan I [2C]	ND	1.0		ND	NR		20		
Endosulfan II	ND	2.0		ND	NR		20		
Endosulfan II [2C]	ND	2.0		ND	NR		20		
Endosulfan sulfate	ND	2.0		ND	NR		20		
Endosulfan Sulfate [2C]	ND	2.0		ND	NR		20		
Endrin	ND	2.0		ND	NR		20		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0778 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6J0778-DUP1) - Continued

Source: 1603743-02

Prepared: 10/27/2016 Analyzed: 10/28/2016

Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	0.247000	1.0		0.228500	NR		7.78	20	J
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	8.446		16.6667		50.7	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	9.024		16.6667		54.1	27 - 123			
Surrogate: Tetrachloro-m-xylene	7.855		16.6667		47.1	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	9.438		16.6667		56.6	26 - 108			

Matrix Spike (B6J0778-MS1)

Source: 1603730-03

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	12.3670	2.0	16.6667	ND	74.2	25 - 141			
4,4'-DDD [2C]	13.0620	2.0	16.6667	ND	78.4	25 - 141			
4,4'-DDE	11.9483	2.0	16.6667	ND	71.7	22 - 141			
4,4'-DDE [2C]	12.9390	2.0	16.6667	ND	77.6	22 - 141			
4,4'-DDT	9.16600	2.0	16.6667	ND	55.0	15 - 136			
4,4'-DDT [2C]	9.85650	2.0	16.6667	ND	59.1	15 - 136			
Aldrin	12.2118	1.0	16.6667	ND	73.3	33 - 118			
Aldrin [2C]	13.0348	1.0	16.6667	ND	78.2	33 - 118			
alpha-BHC	12.0928	1.0	16.6667	ND	72.6	30 - 116			
alpha-BHC [2C]	13.2197	1.0	16.6667	ND	79.3	30 - 116			
alpha-Chlordane	11.9777	1.0	16.6667	ND	71.9	30 - 123			
alpha-Chlordane [2C]	12.8363	1.0	16.6667	ND	77.0	30 - 123			
beta-BHC	12.0190	1.0	16.6667	ND	72.1	24 - 121			
beta-BHC [2C]	13.8012	1.0	16.6667	ND	82.8	24 - 121			
delta-BHC	8.96400	1.0	16.6667	ND	53.8	7 - 120			
delta-BHC [2C]	9.45733	1.0	16.6667	ND	56.7	7 - 120			
Dieldrin	12.4640	2.0	16.6667	ND	74.8	25 - 136			
Dieldrin [2C]	13.1765	2.0	16.6667	ND	79.1	25 - 136			
Endosulfan I	11.8520	1.0	16.6667	ND	71.1	18 - 134			
Endosulfan I [2C]	12.7652	1.0	16.6667	ND	76.6	18 - 134			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0778 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6J0778-MS1) - Continued

Source: 1603730-03

Prepared: 10/27/2016 Analyzed: 10/28/2016

Endosulfan II	12.0428	2.0	16.6667	ND	72.3	28 - 128			
Endosulfan II [2C]	12.0412	2.0	16.6667	ND	72.2	28 - 128			
Endosulfan sulfate	10.5665	2.0	16.6667	ND	63.4	5 - 145			
Endosulfan Sulfate [2C]	11.5248	2.0	16.6667	ND	69.1	5 - 145			
Endrin	13.9195	2.0	16.6667	ND	83.5	26 - 142			
Endrin [2C]	14.9757	2.0	16.6667	ND	89.9	26 - 142			
Endrin aldehyde	11.3453	2.0	16.6667	ND	68.1	8 - 146			
Endrin aldehyde [2C]	11.6850	2.0	16.6667	ND	70.1	8 - 146			
Endrin ketone	11.1047	2.0	16.6667	ND	66.6	16 - 139			
Endrin ketone [2C]	11.7447	2.0	16.6667	ND	70.5	16 - 139			
gamma-BHC	12.7353	1.0	16.6667	ND	76.4	30 - 122			
gamma-BHC [2C]	13.3293	1.0	16.6667	ND	80.0	30 - 122			
gamma-Chlordane	11.8665	1.0	16.6667	ND	71.2	18 - 132			
gamma-Chlordane [2C]	12.8403	1.0	16.6667	ND	77.0	18 - 132			
Heptachlor	12.4073	1.0	16.6667	ND	74.4	34 - 122			
Heptachlor [2C]	13.0153	1.0	16.6667	ND	78.1	34 - 122			
Heptachlor epoxide	12.0948	1.0	16.6667	ND	72.6	21 - 135			
Heptachlor epoxide [2C]	12.9730	1.0	16.6667	ND	77.8	21 - 135			
Methoxychlor	9.96050	5.0	16.6667	ND	59.8	8 - 162			
Methoxychlor [2C]	10.7565	5.0	16.6667	ND	64.5	8 - 162			
Surrogate: Decachlorobiphenyl	11.61		16.6667		69.7	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	12.19		16.6667		73.1	27 - 123			
Surrogate: Tetrachloro-m-xylene	11.86		16.6667		71.2	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	13.65		16.6667		81.9	26 - 108			

Matrix Spike Dup (B6J0778-MSD1)

Source: 1603730-03

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	12.5460	2.0	16.6667	ND	75.3	25 - 141	1.44	20	
4,4'-DDD [2C]	13.2153	2.0	16.6667	ND	79.3	25 - 141	1.17	20	
4,4'-DDE	12.1157	2.0	16.6667	ND	72.7	22 - 141	1.39	20	
4,4'-DDE [2C]	13.0673	2.0	16.6667	ND	78.4	22 - 141	0.987	20	
4,4'-DDT	9.40833	2.0	16.6667	ND	56.4	15 - 136	2.61	20	
4,4'-DDT [2C]	10.1053	2.0	16.6667	ND	60.6	15 - 136	2.49	20	
Aldrin	12.4220	1.0	16.6667	ND	74.5	33 - 118	1.71	20	
Aldrin [2C]	13.2345	1.0	16.6667	ND	79.4	33 - 118	1.52	20	
alpha-BHC	12.2760	1.0	16.6667	ND	73.7	30 - 116	1.50	20	
alpha-BHC [2C]	13.4693	1.0	16.6667	ND	80.8	30 - 116	1.87	20	
alpha-Chlordane	12.1468	1.0	16.6667	ND	72.9	30 - 123	1.40	20	
alpha-Chlordane [2C]	13.0067	1.0	16.6667	ND	78.0	30 - 123	1.32	20	
beta-BHC	12.2030	1.0	16.6667	ND	73.2	24 - 121	1.52	20	
beta-BHC [2C]	14.1043	1.0	16.6667	ND	84.6	24 - 121	2.17	20	
delta-BHC	9.11067	1.0	16.6667	ND	54.7	7 - 120	1.62	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0778 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6J0778-MSD1) - Continued

Source: 1603730-03

Prepared: 10/27/2016 Analyzed: 10/28/2016

delta-BHC [2C]	9.62600	1.0	16.6667	ND	57.8	7 - 120	1.77	20	
Dieldrin	12.6470	2.0	16.6667	ND	75.9	25 - 136	1.46	20	
Dieldrin [2C]	13.3490	2.0	16.6667	ND	80.1	25 - 136	1.30	20	
Endosulfan I	12.0060	1.0	16.6667	ND	72.0	18 - 134	1.29	20	
Endosulfan I [2C]	12.9433	1.0	16.6667	ND	77.7	18 - 134	1.39	20	
Endosulfan II	12.1753	2.0	16.6667	ND	73.1	28 - 128	1.09	20	
Endosulfan II [2C]	12.0805	2.0	16.6667	ND	72.5	28 - 128	0.326	20	
Endosulfan sulfate	10.6823	2.0	16.6667	ND	64.1	5 - 145	1.09	20	
Endosulfan Sulfate [2C]	11.5590	2.0	16.6667	ND	69.4	5 - 145	0.296	20	
Endrin	14.0710	2.0	16.6667	ND	84.4	26 - 142	1.08	20	
Endrin [2C]	15.0840	2.0	16.6667	ND	90.5	26 - 142	0.721	20	
Endrin aldehyde	11.4695	2.0	16.6667	ND	68.8	8 - 146	1.09	20	
Endrin aldehyde [2C]	11.7888	2.0	16.6667	ND	70.7	8 - 146	0.885	20	
Endrin ketone	11.2253	2.0	16.6667	ND	67.4	16 - 139	1.08	20	
Endrin ketone [2C]	11.9583	2.0	16.6667	ND	71.7	16 - 139	1.80	20	
gamma-BHC	12.9323	1.0	16.6667	ND	77.6	30 - 122	1.54	20	
gamma-BHC [2C]	13.5283	1.0	16.6667	ND	81.2	30 - 122	1.48	20	
gamma-Chlordane	12.0293	1.0	16.6667	ND	72.2	18 - 132	1.36	20	
gamma-Chlordane [2C]	13.0363	1.0	16.6667	ND	78.2	18 - 132	1.51	20	
Heptachlor	12.6355	1.0	16.6667	ND	75.8	34 - 122	1.82	20	
Heptachlor [2C]	13.3890	1.0	16.6667	ND	80.3	34 - 122	2.83	20	
Heptachlor epoxide	12.2782	1.0	16.6667	ND	73.7	21 - 135	1.50	20	
Heptachlor epoxide [2C]	13.2077	1.0	16.6667	ND	79.2	21 - 135	1.79	20	
Methoxychlor	10.2575	5.0	16.6667	ND	61.5	8 - 162	2.94	20	
Methoxychlor [2C]	11.0873	5.0	16.6667	ND	66.5	8 - 162	3.03	20	
Surrogate: Decachlorobiphenyl	11.64		16.6667		69.8	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	11.75		16.6667		70.5	27 - 123			
Surrogate: Tetrachloro-m-xylene	11.92		16.6667		71.5	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	13.70		16.6667		82.2	26 - 108			



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0779 - GCSEMI_PCB/PEST_S

Blank (B6J0779-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	ND	2.0			NR
4,4'-DDD [2C]	ND	2.0			NR
4,4'-DDE	ND	2.0			NR
4,4'-DDE [2C]	ND	2.0			NR
4,4'-DDT	ND	2.0			NR
4,4'-DDT [2C]	ND	2.0			NR
Aldrin	ND	1.0			NR
Aldrin [2C]	ND	1.0			NR
alpha-BHC	ND	1.0			NR
alpha-BHC [2C]	ND	1.0			NR
alpha-Chlordane	ND	1.0			NR
alpha-Chlordane [2C]	ND	1.0			NR
beta-BHC	ND	1.0			NR
beta-BHC [2C]	ND	1.0			NR
Chlordane	ND	8.5			NR
Chlordane [2C]	ND	8.5			NR
delta-BHC	ND	1.0			NR
delta-BHC [2C]	ND	1.0			NR
Dieldrin	ND	2.0			NR
Dieldrin [2C]	ND	2.0			NR
Endosulfan I	ND	1.0			NR
Endosulfan I [2C]	ND	1.0			NR
Endosulfan II	ND	2.0			NR
Endosulfan II [2C]	ND	2.0			NR
Endosulfan sulfate	ND	2.0			NR
Endosulfan Sulfate [2C]	ND	2.0			NR
Endrin	ND	2.0			NR
Endrin [2C]	ND	2.0			NR
Endrin aldehyde	ND	2.0			NR
Endrin aldehyde [2C]	ND	2.0			NR
Endrin ketone	ND	2.0			NR
Endrin ketone [2C]	ND	2.0			NR
gamma-BHC	ND	1.0			NR
gamma-BHC [2C]	ND	1.0			NR
gamma-Chlordane	ND	1.0			NR
gamma-Chlordane [2C]	ND	1.0			NR
Heptachlor	ND	1.0			NR
Heptachlor [2C]	ND	1.0			NR
Heptachlor epoxide	ND	1.0			NR
Heptachlor epoxide [2C]	ND	1.0			NR
Methoxychlor	ND	5.0			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0779 - GCSEMI_PCB/PEST_S (continued)

Blank (B6J0779-BLK1) - Continued

Prepared: 10/27/2016 Analyzed: 10/28/2016

Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>12.24</i>		<i>16.6667</i>		<i>73.4</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>12.17</i>		<i>16.6667</i>		<i>73.0</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.97</i>		<i>16.6667</i>		<i>77.8</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>14.01</i>		<i>16.6667</i>		<i>84.0</i>	<i>26 - 108</i>		

LCS (B6J0779-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	13.3867	2.0	16.6667		80.3	53 - 125		
4,4'-DDD [2C]	13.6395	2.0	16.6667		81.8	53 - 125		
4,4'-DDE	13.5107	2.0	16.6667		81.1	54 - 113		
4,4'-DDE [2C]	13.7243	2.0	16.6667		82.3	54 - 113		
4,4'-DDT	12.2180	2.0	16.6667		73.3	25 - 127		
4,4'-DDT [2C]	12.1855	2.0	16.6667		73.1	25 - 127		
Aldrin	13.6402	1.0	16.6667		81.8	59 - 107		
Aldrin [2C]	14.1362	1.0	16.6667		84.8	59 - 107		
alpha-BHC	13.4835	1.0	16.6667		80.9	59 - 104		
alpha-BHC [2C]	14.0937	1.0	16.6667		84.6	59 - 104		
alpha-Chlordane	13.2160	1.0	16.6667		79.3	54 - 110		
alpha-Chlordane [2C]	13.5542	1.0	16.6667		81.3	54 - 110		
beta-BHC	13.1115	1.0	16.6667		78.7	57 - 103		
beta-BHC [2C]	13.7387	1.0	16.6667		82.4	57 - 103		
delta-BHC	9.55733	1.0	16.6667		57.3	16 - 120		
delta-BHC [2C]	9.93467	1.0	16.6667		59.6	16 - 120		
Dieldrin	13.9385	2.0	16.6667		83.6	61 - 109		
Dieldrin [2C]	14.0908	2.0	16.6667		84.5	61 - 109		
Endosulfan I	13.1793	1.0	16.6667		79.1	60 - 106		
Endosulfan I [2C]	13.7642	1.0	16.6667		82.6	60 - 106		
Endosulfan II	13.2208	2.0	16.6667		79.3	59 - 108		
Endosulfan II [2C]	13.1092	2.0	16.6667		78.7	59 - 108		
Endosulfan sulfate	11.8755	2.0	16.6667		71.3	54 - 110		
Endosulfan Sulfate [2C]	12.2602	2.0	16.6667		73.6	54 - 110		
Endrin	15.7470	2.0	16.6667		94.5	63 - 112		
Endrin [2C]	16.2235	2.0	16.6667		97.3	63 - 112		
Endrin aldehyde	12.6333	2.0	16.6667		75.8	64 - 119		
Endrin aldehyde [2C]	13.0382	2.0	16.6667		78.2	64 - 119		
Endrin ketone	12.3237	2.0	16.6667		73.9	54 - 115		
Endrin ketone [2C]	12.7015	2.0	16.6667		76.2	54 - 115		
gamma-BHC	13.7720	1.0	16.6667		82.6	60 - 107		
gamma-BHC [2C]	14.3025	1.0	16.6667		85.8	60 - 107		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0779 - GCSEMI_PCB/PEST_S (continued)

LCS (B6J0779-BS1) - Continued

Prepared: 10/27/2016 Analyzed: 10/28/2016

gamma-Chlordane	13.1567	1.0	16.6667		78.9	57 - 106			
gamma-Chlordane [2C]	13.5432	1.0	16.6667		81.3	57 - 106			
Heptachlor	13.9933	1.0	16.6667		84.0	54 - 114			
Heptachlor [2C]	14.3473	1.0	16.6667		86.1	54 - 114			
Heptachlor epoxide	13.5077	1.0	16.6667		81.0	61 - 106			
Heptachlor epoxide [2C]	13.9977	1.0	16.6667		84.0	61 - 106			
Methoxychlor	12.9732	5.0	16.6667		77.8	18 - 138			
Methoxychlor [2C]	13.2685	5.0	16.6667		79.6	18 - 138			
Surrogate: Decachlorobiphenyl	12.35		16.6667		74.1	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	12.16		16.6667		73.0	27 - 123			
Surrogate: Tetrachloro-m-xylene	13.17		16.6667		79.0	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	14.76		16.6667		88.6	26 - 108			

Duplicate (B6J0779-DUP1)

Source: 1603743-20

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	ND	2.0		ND	NR			20	
4,4'-DDD [2C]	ND	2.0		ND	NR			20	
4,4'-DDE	2.67817	2.0		2.53467	NR		5.51	20	
4,4'-DDE [2C]	2.93517	2.0		2.64833	NR		10.3	20	
4,4'-DDT	0.736833	2.0		0.562667	NR		26.8	20	R3, J
4,4'-DDT [2C]	0.898167	2.0		0.740000	NR		19.3	20	J
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	2.42783	1.0		2.06317	NR		16.2	20	
alpha-Chlordane [2C]	4.22400	1.0		3.67417	NR		13.9	20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	0.306333	2.0		0.279000	NR		9.34	20	J
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/02/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0779 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6J0779-DUP1) - Continued

Source: 1603743-20

Prepared: 10/27/2016 Analyzed: 10/28/2016

Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	2.15167	1.0		1.76600	NR		19.7	20	
gamma-Chlordane [2C]	1.93817	1.0		1.71017	NR		12.5	20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	7.437		16.6667		44.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	7.437		16.6667		44.6	27 - 123			
Surrogate: Tetrachloro-m-xylene	7.068		16.6667		42.4	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	8.207		16.6667		49.2	26 - 108			

Matrix Spike (B6J0779-MS1)

Source: 1603743-20

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	5.04900	2.0	16.6667	ND	30.3	25 - 141			
4,4'-DDD [2C]	5.34150	2.0	16.6667	ND	32.0	25 - 141			
4,4'-DDE	8.62967	2.0	16.6667	2.53467	36.6	22 - 141			
4,4'-DDE [2C]	9.15850	2.0	16.6667	2.64833	39.1	22 - 141			
4,4'-DDT	6.65950	2.0	16.6667	0.562667	36.6	15 - 136			
4,4'-DDT [2C]	6.94283	2.0	16.6667	0.740000	37.2	15 - 136			
Aldrin	6.90733	1.0	16.6667	ND	41.4	33 - 118			
Aldrin [2C]	7.70933	1.0	16.6667	ND	46.3	33 - 118			
alpha-BHC	5.35900	1.0	16.6667	ND	32.2	30 - 116			
alpha-BHC [2C]	5.85400	1.0	16.6667	ND	35.1	30 - 116			
alpha-Chlordane	7.75767	1.0	16.6667	2.06317	34.2	30 - 123			
alpha-Chlordane [2C]	8.28767	1.0	16.6667	3.67417	27.7	30 - 123			M2
beta-BHC	2.39017	1.0	16.6667	ND	14.3	24 - 121			M2
beta-BHC [2C]	2.47883	1.0	16.6667	ND	14.9	24 - 121			M2
delta-BHC	0.825167	1.0	16.6667	ND	4.95	7 - 120			M2, J
delta-BHC [2C]	0.845667	1.0	16.6667	ND	5.07	7 - 120			M2, J
Dieldrin	2.39400	2.0	16.6667	ND	14.4	25 - 136			M2
Dieldrin [2C]	2.51100	2.0	16.6667	0.279000	13.4	25 - 136			M2
Endosulfan I	2.92350	1.0	16.6667	ND	17.5	18 - 134			M2
Endosulfan I [2C]	3.16217	1.0	16.6667	ND	19.0	18 - 134			
Endosulfan II	0.353500	2.0	16.6667	ND	2.12	28 - 128			M2, J
Endosulfan II [2C]	0.382000	2.0	16.6667	ND	2.29	28 - 128			M2, J



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0779 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6J0779-MS1) - Continued

Source: 1603743-20

Prepared: 10/27/2016 Analyzed: 10/28/2016

Endosulfan sulfate	0.255500	2.0	16.6667	ND	1.53	5 - 145			M2, J
Endosulfan Sulfate [2C]	0.221500	2.0	16.6667	ND	1.33	5 - 145			M2, J
Endrin	2.58267	2.0	16.6667	ND	15.5	26 - 142			M2
Endrin [2C]	2.96400	2.0	16.6667	ND	17.8	26 - 142			M2
Endrin aldehyde	0.428500	2.0	16.6667	ND	2.57	8 - 146			M2, J
Endrin aldehyde [2C]	ND	2.0	16.6667	ND	NR	8 - 146			M2
Endrin ketone	0.359833	2.0	16.6667	ND	2.16	16 - 139			M2, J
Endrin ketone [2C]	0.413000	2.0	16.6667	ND	2.48	16 - 139			M2, J
gamma-BHC	4.84900	1.0	16.6667	ND	29.1	30 - 122			M2
gamma-BHC [2C]	5.16267	1.0	16.6667	ND	31.0	30 - 122			
gamma-Chlordane	5.78200	1.0	16.6667	1.76600	24.1	18 - 132			
gamma-Chlordane [2C]	6.18117	1.0	16.6667	1.71017	26.8	18 - 132			
Heptachlor	7.03933	1.0	16.6667	ND	42.2	34 - 122			
Heptachlor [2C]	7.61550	1.0	16.6667	ND	45.7	34 - 122			
Heptachlor epoxide	3.53750	1.0	16.6667	ND	21.2	21 - 135			
Heptachlor epoxide [2C]	3.92300	1.0	16.6667	ND	23.5	21 - 135			
Methoxychlor	0.894167	5.0	16.6667	ND	5.36	8 - 162			M2, J
Methoxychlor [2C]	0.925667	5.0	16.6667	ND	5.55	8 - 162			M2, J
Surrogate: Decachlorobiphenyl	8.089		16.6667		48.5	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	7.582		16.6667		45.5	27 - 123			
Surrogate: Tetrachloro-m-xylene	6.422		16.6667		38.5	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	7.436		16.6667		44.6	26 - 108			

Matrix Spike Dup (B6J0779-MSD1)

Source: 1603743-20

Prepared: 10/27/2016 Analyzed: 10/28/2016

4,4'-DDD	6.46433	2.0	16.6667	ND	38.8	25 - 141	24.6	20	R3
4,4'-DDD [2C]	6.85183	2.0	16.6667	ND	41.1	25 - 141	24.8	20	R3
4,4'-DDE	10.0212	2.0	16.6667	2.53467	44.9	22 - 141	14.9	20	
4,4'-DDE [2C]	10.9053	2.0	16.6667	2.64833	49.5	22 - 141	17.4	20	
4,4'-DDT	8.01633	2.0	16.6667	0.562667	44.7	15 - 136	18.5	20	
4,4'-DDT [2C]	8.62483	2.0	16.6667	0.740000	47.3	15 - 136	21.6	20	R3
Aldrin	8.14400	1.0	16.6667	ND	48.9	33 - 118	16.4	20	
Aldrin [2C]	9.17567	1.0	16.6667	ND	55.1	33 - 118	17.4	20	
alpha-BHC	7.14717	1.0	16.6667	ND	42.9	30 - 116	28.6	20	R3
alpha-BHC [2C]	7.80367	1.0	16.6667	ND	46.8	30 - 116	28.6	20	R3
alpha-Chlordane	9.71367	1.0	16.6667	2.06317	45.9	30 - 123	22.4	20	R3
alpha-Chlordane [2C]	10.2430	1.0	16.6667	3.67417	39.4	30 - 123	21.1	20	R3
beta-BHC	3.37900	1.0	16.6667	ND	20.3	24 - 121	34.3	20	M2, R3
beta-BHC [2C]	3.51150	1.0	16.6667	ND	21.1	24 - 121	34.5	20	M2, R3
delta-BHC	1.15417	1.0	16.6667	ND	6.93	7 - 120	33.2	20	M2, R3
delta-BHC [2C]	1.18150	1.0	16.6667	ND	7.09	7 - 120	33.1	20	R3
Dieldrin	3.05300	2.0	16.6667	ND	18.3	25 - 136	24.2	20	M2, R3



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0779 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6J0779-MSD1) - Continued

Source: 1603743-20

Prepared: 10/27/2016 Analyzed: 10/28/2016

Dieldrin [2C]	3.29900	2.0	16.6667	0.279000	18.1	25 - 136	27.1	20	M2, R3
Endosulfan I	3.81000	1.0	16.6667	ND	22.9	18 - 134	26.3	20	R3
Endosulfan I [2C]	4.20100	1.0	16.6667	ND	25.2	18 - 134	28.2	20	R3
Endosulfan II	0.391167	2.0	16.6667	ND	2.35	28 - 128	10.1	20	M2, J
Endosulfan II [2C]	0.414833	2.0	16.6667	ND	2.49	28 - 128	8.24	20	M2, J
Endosulfan sulfate	0.277333	2.0	16.6667	ND	1.66	5 - 145	8.20	20	M2, J
Endosulfan Sulfate [2C]	0.237833	2.0	16.6667	ND	1.43	5 - 145	7.11	20	M2, J
Endrin	3.40167	2.0	16.6667	ND	20.4	26 - 142	27.4	20	M2, R3
Endrin [2C]	3.92200	2.0	16.6667	ND	23.5	26 - 142	27.8	20	M2, R3
Endrin aldehyde	0.486667	2.0	16.6667	ND	2.92	8 - 146	12.7	20	M2, J
Endrin aldehyde [2C]	ND	2.0	16.6667	ND	NR	8 - 146		20	M2
Endrin ketone	0.405000	2.0	16.6667	ND	2.43	16 - 139	11.8	20	M2, J
Endrin ketone [2C]	0.493000	2.0	16.6667	ND	2.96	16 - 139	17.7	20	M2, J
gamma-BHC	6.63983	1.0	16.6667	ND	39.8	30 - 122	31.2	20	R3
gamma-BHC [2C]	7.05750	1.0	16.6667	ND	42.3	30 - 122	31.0	20	R3
gamma-Chlordane	7.35083	1.0	16.6667	1.76600	33.5	18 - 132	23.9	20	R3
gamma-Chlordane [2C]	7.65300	1.0	16.6667	1.71017	35.7	18 - 132	21.3	20	R3
Heptachlor	8.38883	1.0	16.6667	ND	50.3	34 - 122	17.5	20	
Heptachlor [2C]	9.09150	1.0	16.6667	ND	54.5	34 - 122	17.7	20	
Heptachlor epoxide	4.70550	1.0	16.6667	ND	28.2	21 - 135	28.3	20	R3
Heptachlor epoxide [2C]	4.98717	1.0	16.6667	ND	29.9	21 - 135	23.9	20	R3
Methoxychlor	1.07617	5.0	16.6667	ND	6.46	8 - 162	18.5	20	M2, J
Methoxychlor [2C]	1.08283	5.0	16.6667	ND	6.50	8 - 162	15.7	20	M2, J

Surrogate: Decachlorobiphenyl	9.768	16.6667	58.6	27 - 123
Surrogate: Decachlorobiphenyl [2C]	8.668	16.6667	52.0	27 - 123
Surrogate: Tetrachloro-m-xylene	7.516	16.6667	45.1	26 - 108
Surrogate: Tetrachloro-m-xylene [2C]	8.827	16.6667	53.0	26 - 108



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Reported : 11/02/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6J0769 - GCSEMI_PCB/PEST_S

Blank (B6J0769-BLK1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

Surrogate: Decachlorobiphenyl	15.78		16.6667		94.7	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.98		16.6667		95.9	28 - 102			

LCS (B6J0769-BS1)

Prepared: 10/27/2016 Analyzed: 10/28/2016

Aroclor 1016	144.195	16	166.667		86.5	70 - 107			
Aroclor 1260	156.807	16	166.667		94.1	69 - 120			
Surrogate: Decachlorobiphenyl	16.04		16.6667		96.2	26 - 137			
Surrogate: Tetrachloro-m-xylene	17.22		16.6667		103	28 - 102			S12

Duplicate (B6J0769-DUP1)

Source: 1603729-35

Prepared: 10/27/2016 Analyzed: 11/1/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	13.71		16.6667		82.2	26 - 137			
Surrogate: Tetrachloro-m-xylene	17.10		16.6667		103	28 - 102			S12

Duplicate (B6J0769-DUP2)

Source: 1603734-09

Prepared: 10/27/2016 Analyzed: 11/1/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	12.49		16.6667		74.9	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.85		16.6667		95.1	28 - 102			

Duplicate (B6J0769-DUP3)

Source: 1603735-27

Prepared: 10/27/2016 Analyzed: 11/1/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	12.70		16.6667		76.2	26 - 137			
Surrogate: Tetrachloro-m-xylene	14.40		16.6667		86.4	28 - 102			

Duplicate (B6J0769-DUP4)

Source: 1603743-24

Prepared: 10/27/2016 Analyzed: 11/1/2016

Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	13.53		16.6667		81.2	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.77		16.6667		94.6	28 - 102			



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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6J0769 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6J0769-MS1)		Source: 1603729-35		Prepared: 10/27/2016 Analyzed: 10/28/2016					
Aroclor 1016	133.314	16	166.667	ND	80.0	34 - 120			
Aroclor 1260	145.047	16	166.667	ND	87.0	39 - 128			
Surrogate: Decachlorobiphenyl	14.97		16.6667		89.8	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.15		16.6667		90.9	28 - 102			
Matrix Spike (B6J0769-MS2)		Source: 1603734-09		Prepared: 10/27/2016 Analyzed: 11/1/2016					
Aroclor 1016	139.582	16	166.667	ND	83.7	34 - 120			
Aroclor 1260	135.953	16	166.667	ND	81.6	39 - 128			
Surrogate: Decachlorobiphenyl	12.78		16.6667		76.7	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.87		16.6667		95.2	28 - 102			
Matrix Spike (B6J0769-MS3)		Source: 1603735-27		Prepared: 10/27/2016 Analyzed: 11/1/2016					
Aroclor 1016	128.202	16	166.667	ND	76.9	34 - 120			
Aroclor 1260	134.119	16	166.667	ND	80.5	39 - 128			
Surrogate: Decachlorobiphenyl	12.24		16.6667		73.4	26 - 137			
Surrogate: Tetrachloro-m-xylene	13.96		16.6667		83.8	28 - 102			
Matrix Spike (B6J0769-MS4)		Source: 1603743-24		Prepared: 10/27/2016 Analyzed: 11/1/2016					
Aroclor 1016	135.282	16	166.667	ND	81.2	34 - 120			
Aroclor 1260	143.305	16	166.667	ND	86.0	39 - 128			
Surrogate: Decachlorobiphenyl	12.80		16.6667		76.8	26 - 137			
Surrogate: Tetrachloro-m-xylene	14.91		16.6667		89.4	28 - 102			
Matrix Spike Dup (B6J0769-MSD1)		Source: 1603729-35		Prepared: 10/27/2016 Analyzed: 11/1/2016					
Aroclor 1016	150.354	16	166.667	ND	90.2	34 - 120	12.0	20	
Aroclor 1260	151.077	16	166.667	ND	90.6	39 - 128	4.07	20	
Surrogate: Decachlorobiphenyl	13.49		16.6667		81.0	26 - 137			
Surrogate: Tetrachloro-m-xylene	16.98		16.6667		102	28 - 102			
Matrix Spike Dup (B6J0769-MSD2)		Source: 1603734-09		Prepared: 10/27/2016 Analyzed: 11/1/2016					
Aroclor 1016	138.911	16	166.667	ND	83.3	34 - 120	0.482	20	
Aroclor 1260	134.916	16	166.667	ND	80.9	39 - 128	0.766	20	
Surrogate: Decachlorobiphenyl	12.44		16.6667		74.6	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.66		16.6667		93.9	28 - 102			
Matrix Spike Dup (B6J0769-MSD3)		Source: 1603735-27		Prepared: 10/27/2016 Analyzed: 11/1/2016					
Aroclor 1016	129.066	16	166.667	ND	77.4	34 - 120	0.671	20	
Aroclor 1260	135.362	16	166.667	ND	81.2	39 - 128	0.923	20	
Surrogate: Decachlorobiphenyl	12.38		16.6667		74.3	26 - 137			
Surrogate: Tetrachloro-m-xylene	14.08		16.6667		84.5	28 - 102			



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Report To : John Nordenstam

Reported : 11/02/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B6J0769 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6J0769-MSD4)

Source: 1603743-24

Prepared: 10/27/2016 Analyzed: 11/1/2016

Aroclor 1016	137.993	16	166.667	ND	82.8	34 - 120	1.98	20	
Aroclor 1260	145.159	16	166.667	ND	87.1	39 - 128	1.29	20	
Surrogate: Decachlorobiphenyl	12.62		16.6667		75.7	26 - 137			
Surrogate: Tetrachloro-m-xylene	15.15		16.6667		90.9	28 - 102			



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Reported : 11/02/2016

Notes and Definitions

S2	Surrogate recovery was below laboratory acceptance limit. Reextraction and/or reanalysis confirms low recovery caused by matrix effects.
S12	Surrogate recovery outside in-house established limit but within method default criteria.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Thursday, October 20, 2016 1:15 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff; Surrency, Ross
Subject: RE: LAUSD Roosevelt HS PEA - Compositing Instructions for Samples to be collected 10/22-23/16
Attachments: Composites for Areas 2, 8 and 9_R1.docx

Rachelle – Attached is a copy of the corrected compositing instructions. There was an error in the Sample IDs for the composites from Area 2.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

From: Nordenstam, John
Sent: Thursday, October 20, 2016 1:08 PM
To: Rachelle Arada <RachelleArada@trc.com>
Cc: Edric Caballero (<edric@trc.com>) <edric@trc.com>; Maxwell, Jeff <Maxwell@trcsolutions.com>; Surrency, Ross <Ross@trcsolutions.com>
Subject: LAUSD Roosevelt HS PEA - Compositing Instructions for Samples to be collected 10/22-23/16

Rachelle – Attached are the compositing instructions for samples to be collected at LAUSD Roosevelt HS on October 22 and 23, 2016. We plan to conduct sampling activities in Areas 8 and 9, and complete sampling in Area 2. We may also start on sampling Area 6. However, I have not included compositing instructions for Area 6, since we are not sure how much sampling will be completed in this area. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Compositing Instructions for Samples to be collected on October 22 and 23, 2016

Area 2

Composite A11 – Composite Samples: B6-0.5' and B8-0.5' – analyze for OCPs
Composite A12 – Composite Samples: C6-0.5' and C8-0.5' – analyze for OCPs
Composite A13 – Composite Samples: D6-0.5' and D8-0.5' – analyze for OCPs
Composite A14 – Composite Samples: E6-0.5' and E8-0.5' – analyze for OCPs
Composite A15 – Composite Samples: F6-0.5' and F8-0.5' – analyze for OCPs – pull aliquot for duplicate sample and analyze for OCPs

Area 8

Composite D1 - Composite Samples: AA923-1-0.5', AA923-2-0.5', and AA923-3-0.5' – analyze for OCPs
Composite D2 –Composite Samples: AA923-4-0.5', AA923-5-0.5', and AA923-6-0.5' – analyze for OCPs
Composite D3 - Composite Samples: AA1322-1-0.5', AA1322-2-0.5', and AA1322-3-0.5' – analyze for OCPs
Composite D4 –Composite Samples: AA1322-4-0.5', AA1322-5-0.5', and AA1322-6-0.5' – analyze for OCPs
Composite D5 - Composite Samples: AA828-1-0.5', AA828-2-0.5', and AA828-3-0.5' – analyze for OCPs
Composite D6 –Composite Samples: AA828-4-0.5', AA828-5-0.5', and AA828-6-0.5' – analyze for OCPs
Composite D7 - Composite Samples: AA651/683-1-0.5', AA651/683-2-0.5', and AA651/683-3-0.5' – analyze for OCPs
Composite D8 –Composite Samples: AA651/683-4-0.5', AA651/683-5-0.5', and AA651/683-6-0.5' – analyze for OCPs
Composite D9 - Composite Samples: AA831-1-0.5', AA831-2-0.5', and AA831-3-0.5' – analyze for OCPs
Composite D10 –Composite Samples: AA831-4-0.5', AA831-5-0.5', and AA831-6-0.5' – analyze for OCPs and PCBs – pull aliquot for duplicate sample and analyze for OCPs and PCBs
Composite D11 – Composite Samples: X8-0.5', X9-0.5', X10-0.5', and X11-0.5' - analyze for OCPs
Composite D12 – Composite Samples: Y8-0.5', Y9-0.5', Y10-0.5', and Y11-0.5' - analyze for OCPs

Area 9

Composite E1 – Composite Samples: V13-0.5', V14-0.5', and V15-0.5' - analyze for OCPs
Composite E2 – Composite Samples: V16-0.5', and V17-0.5' - analyze for OCPs
Composite E3 – Composite Samples: W12-0.5', W13-0.5', and W14-0.5' - analyze for OCPs
Composite E4 – Composite Samples: W15-0.5', W16-0.5', and W17-0.5' - analyze for OCPs
Composite E5 – Composite Samples: X12-0.5', X13-0.5', and X14-0.5' - analyze for OCPs
Composite E6 – Composite Samples: X15-0.5', X16-0.5', and X17-0.5' - analyze for OCPs
Composite E7 – Composite Samples: Y12-0.5', Y13-0.5', and Y14-0.5' - analyze for OCPs and PCBs
Composite E8 – Composite Samples: Y15-0.5', Y16-0.5', and Y17-0.5' - analyze for OCPs - pull aliquot for duplicate sample and analyze for OCPs



November 09, 2016

John Nordenstam
TRC
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Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603827

Client Reference : LAUSD - ROOSEVELT + HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD - ROOSEVELT + HS, 265642.00

Report To : John Nordenstam

Reported : 11/09/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA1917-4-0.5	1603827-01	Soil	10/29/16 7:15	10/29/16 15:46
AA1917-4-2.5	1603827-02	Soil	10/29/16 7:20	10/29/16 15:46
AA1917-3-0.5	1603827-03	Soil	10/29/16 7:30	10/29/16 15:46
AA1917-3-2.5	1603827-04	Soil	10/29/16 7:40	10/29/16 15:46
AA1917-2-0.5	1603827-05	Soil	10/29/16 7:50	10/29/16 15:46
AA1917-2-2.5	1603827-06	Soil	10/29/16 7:55	10/29/16 15:46
AA1917-1-0.5	1603827-07	Soil	10/29/16 8:00	10/29/16 15:46
AA1917-1-2.5	1603827-08	Soil	10/29/16 8:05	10/29/16 15:46
AA2573-2-0.5	1603827-09	Soil	10/29/16 8:10	10/29/16 15:46
AA2573-2-2.5	1603827-10	Soil	10/29/16 8:15	10/29/16 15:46
AA2685-2-0.5	1603827-11	Soil	10/29/16 8:25	10/29/16 15:46
AA2685-2-2.5	1603827-12	Soil	10/29/16 8:30	10/29/16 15:46
AA2685-1-0.5	1603827-13	Soil	10/29/16 8:40	10/29/16 15:46
AA2685-1-2.5	1603827-14	Soil	10/29/16 8:45	10/29/16 15:46
AA2685-3-0.5	1603827-15	Soil	10/29/16 10:35	10/29/16 15:46
AA2685-3-2.5	1603827-16	Soil	10/29/16 10:39	10/29/16 15:46
AA2685-4-0.5	1603827-17	Soil	10/29/16 9:50	10/29/16 15:46
AA2685-4-2.5	1603827-18	Soil	10/29/16 9:55	10/29/16 15:46
AA2684-4-0.5	1603827-19	Soil	10/29/16 9:59	10/29/16 15:46
AA2684-4-2.5	1603827-20	Soil	10/29/16 10:05	10/29/16 15:46
AA2684-3-0.5	1603827-21	Soil	10/29/16 10:04	10/29/16 15:46
AA2684-3-2.5	1603827-22	Soil	10/29/16 10:07	10/29/16 15:46
AA2684-2-0.5	1603827-23	Soil	10/29/16 10:10	10/29/16 15:46
AA2684-2-2.5	1603827-24	Soil	10/29/16 10:15	10/29/16 15:46
AA2684-1-0.5	1603827-25	Soil	10/29/16 10:20	10/29/16 15:46
AA2684-1-2.5	1603827-26	Soil	10/29/16 10:25	10/29/16 15:46
P14-0.5	1603827-27	Soil	10/29/16 11:05	10/29/16 15:46
P14-2.5	1603827-28	Soil	10/29/16 11:10	10/29/16 15:46
Q-14-0.5	1603827-29	Soil	10/29/16 11:25	10/29/16 15:46
Q-14-2.5	1603827-30	Soil	10/29/16 11:35	10/29/16 15:46
R14-0.5	1603827-31	Soil	10/29/16 11:45	10/29/16 15:46
R14-2.5	1603827-32	Soil	10/29/16 11:50	10/29/16 15:46
AA2543-3-0.5	1603827-33	Soil	10/29/16 12:00	10/29/16 15:46
AA2543-3-2.5	1603827-34	Soil	10/29/16 12:10	10/29/16 15:46
AA2543-2-0.5	1603827-35	Soil	10/29/16 12:20	10/29/16 15:46
AA2543-2-2.5	1603827-36	Soil	10/29/16 12:25	10/29/16 15:46
AA2543-1-0.5	1603827-37	Soil	10/29/16 12:35	10/29/16 15:46



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AA2543-1-2.5	1603827-38	Soil	10/29/16 12:45	10/29/16 15:46
AA2543-6-0.5	1603827-39	Soil	10/29/16 13:00	10/29/16 15:46
AA2543-6-2.5	1603827-40	Soil	10/29/16 13:10	10/29/16 15:46
AA2543-5-0.5	1603827-41	Soil	10/29/16 12:55	10/29/16 15:46
AA2543-5-2.5	1603827-42	Soil	10/29/16 13:04	10/29/16 15:46
AA2543-4-0.5	1603827-43	Soil	10/29/16 13:20	10/29/16 15:46
AA2543-4-2.5	1603827-44	Soil	10/29/16 13:30	10/29/16 15:46
EB-13-10/29/16	1603827-45	Water	10/29/16 14:45	10/29/16 15:46
AA2573-2-0.5(Duplicate)	1603827-46	Soil	10/29/16 8:10	10/29/16 15:46
AA2685-4-2.5(Duplicate)	1603827-47	Soil	10/29/16 9:55	10/29/16 15:46
P14-0.5(Duplicate)	1603827-48	Soil	10/29/16 11:05	10/29/16 15:46
AA2543-2-2.5(Duplicate)	1603827-49	Soil	10/29/16 12:25	10/29/16 15:46

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD - ROOSEVELT + HS, 265642.00
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID AA1917-4-0.5

Lab ID: 1603827-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0211	11/05/2016	11/07/16 15:12	
Lead	5.5	1.0	0.11	1	B6K0211	11/05/2016	11/07/16 15:12	



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Client Sample ID AA1917-4-2.5

Lab ID: 1603827-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0211	11/05/2016	11/07/16 15:13	
Lead	220	1.0	0.11	1	B6K0211	11/05/2016	11/07/16 15:13	



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Client Sample ID AA1917-3-0.5

Lab ID: 1603827-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0211	11/05/2016	11/07/16 15:14	
Lead	4.7	1.0	0.11	1	B6K0211	11/05/2016	11/07/16 15:14	



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Reported : 11/09/2016

Client Sample ID AA1917-3-2.5

Lab ID: 1603827-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0211	11/05/2016	11/07/16 15:15	
Lead	6.1	1.0	0.11	1	B6K0211	11/05/2016	11/07/16 15:15	



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Client Sample ID AA1917-2-0.5

Lab ID: 1603827-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:22	
Lead	4.5	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:22	



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Client Sample ID AA1917-2-2.5

Lab ID: 1603827-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:26	
Lead	9.1	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:26	



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Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID AA1917-1-0.5

Lab ID: 1603827-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:27	
Lead	3.3	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:27	



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Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID AA1917-1-2.5

Lab ID: 1603827-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:28	
Lead	16	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:28	



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Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID AA2573-2-0.5

Lab ID: 1603827-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:29	
Lead	3.3	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:29	



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Reported : 11/09/2016

Client Sample ID AA2573-2-2.5

Lab ID: 1603827-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:33	
Lead	17	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:33	



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Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID AA2685-2-0.5

Lab ID: 1603827-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.5	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:34	
Lead	9.2	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:34	



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Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID AA2685-2-2.5

Lab ID: 1603827-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:35	
Lead	19	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:35	



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Project Number : LAUSD - ROOSEVELT + HS, 265642.00
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID AA2685-1-0.5

Lab ID: 1603827-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.5	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:36	
Lead	27	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:36	



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Project Number : LAUSD - ROOSEVELT + HS, 265642.00

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID AA2685-1-2.5

Lab ID: 1603827-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:38	
Lead	10	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:38	



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Client Sample ID AA2685-3-0.5

Lab ID: 1603827-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:39	
Lead	14	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:39	



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Client Sample ID AA2685-3-2.5

Lab ID: 1603827-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:40	
Lead	19	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:40	



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Client Sample ID AA2685-4-0.5

Lab ID: 1603827-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:41	
Lead	7.7	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:41	



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Client Sample ID AA2685-4-2.5

Lab ID: 1603827-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.9	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:42	
Lead	9.5	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:42	



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Client Sample ID AA2684-4-0.5

Lab ID: 1603827-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.8	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:43	
Lead	16	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:43	



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Client Sample ID AA2684-4-2.5

Lab ID: 1603827-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.5	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:47	
Lead	7.3	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:47	



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Client Sample ID AA2684-3-0.5

Lab ID: 1603827-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.7	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:48	
Lead	20	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:48	



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Client Sample ID AA2684-3-2.5

Lab ID: 1603827-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	33	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:49	
Lead	25	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:49	



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Client Sample ID AA2684-2-0.5

Lab ID: 1603827-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	18	1.0	0.70	1	B6K0212	11/05/2016	11/07/16 15:50	
Lead	19	1.0	0.11	1	B6K0212	11/05/2016	11/07/16 15:50	



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Client Sample ID AA2684-2-2.5

Lab ID: 1603827-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 15:54	
Lead	16	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 15:54	



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Client Sample ID AA2684-1-0.5

Lab ID: 1603827-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:00	
Lead	11	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:00	



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Client Sample ID AA2684-1-2.5

Lab ID: 1603827-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:01	
Lead	16	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:01	



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Client Sample ID P14-0.5

Lab ID: 1603827-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:03	
Lead	6.9	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:03	



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Client Sample ID P14-2.5

Lab ID: 1603827-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:04	
Lead	21	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:04	



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Client Sample ID Q-14-0.5

Lab ID: 1603827-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:05	
Lead	5.6	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:05	



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Client Sample ID Q-14-2.5

Lab ID: 1603827-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:06	
Lead	32	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:06	



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Client Sample ID R14-0.5

Lab ID: 1603827-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:07	
Lead	2.8	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:07	



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Client Sample ID R14-2.5

Lab ID: 1603827-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:08	
Lead	3.4	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:08	



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Client Sample ID AA2543-3-0.5

Lab ID: 1603827-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:09	
Lead	7.2	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:09	



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Client Sample ID AA2543-3-2.5

Lab ID: 1603827-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:10	
Lead	18	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:10	



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Client Sample ID AA2543-2-0.5

Lab ID: 1603827-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	23	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:14	
Lead	17	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:14	



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Client Sample ID AA2543-2-2.5

Lab ID: 1603827-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	25	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:15	
Lead	17	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:15	



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Client Sample ID AA2543-1-0.5

Lab ID: 1603827-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:16	
Lead	7.4	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:16	



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Client Sample ID AA2543-1-2.5

Lab ID: 1603827-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	34	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:17	
Lead	26	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:17	



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Client Sample ID AA2543-6-0.5

Lab ID: 1603827-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	39	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:19	
Lead	34	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:19	



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Client Sample ID AA2543-6-2.5

Lab ID: 1603827-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:20	
Lead	35	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:20	



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Client Sample ID AA2543-5-0.5

Lab ID: 1603827-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	25	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:21	
Lead	16	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:21	



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Client Sample ID AA2543-5-2.5

Lab ID: 1603827-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	34	1.0	0.70	1	B6K0213	11/05/2016	11/07/16 16:22	
Lead	26	1.0	0.11	1	B6K0213	11/05/2016	11/07/16 16:22	



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Client Sample ID AA2543-4-0.5

Lab ID: 1603827-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.2	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:46	
Lead	12	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:46	



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Reported : 11/09/2016

Client Sample ID AA2543-4-2.5

Lab ID: 1603827-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:50	
Lead	38	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:50	



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Client Sample ID EB-13-10/29/16

Lab ID: 1603827-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.050	0.033	5	B6K0252	11/07/2016	11/08/16 10:25	D5
Lead	ND	0.025	0.014	5	B6K0252	11/07/2016	11/08/16 10:25	D5

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
4,4'-DDE	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
4,4'-DDT	ND	0.05	0.004	1	B6K0167	11/03/2016	11/07/16 19:06	
Aldrin	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:06	
alpha-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:06	
alpha-Chlordane	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
beta-BHC	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Chlordane	ND	0.25	0.03	1	B6K0167	11/03/2016	11/07/16 19:06	
delta-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:06	
Dieldrin	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Endosulfan I	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Endosulfan II	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Endosulfan sulfate	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Endrin	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Endrin aldehyde	ND	0.05	0.006	1	B6K0167	11/03/2016	11/07/16 19:06	
Endrin ketone	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
gamma-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:06	
gamma-Chlordane	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Heptachlor	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Heptachlor epoxide	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:06	
Methoxychlor	ND	0.25	0.004	1	B6K0167	11/03/2016	11/07/16 19:06	
Toxaphene	ND	2.5	0.23	1	B6K0167	11/03/2016	11/07/16 19:06	
Surrogate: Decachlorobiphenyl	30.7 %		7 - 127		B6K0167	11/03/2016	11/07/16 19:06	
Surrogate: Tetrachloro-m-xylene	37.1 %		14 - 122		B6K0167	11/03/2016	11/07/16 19:06	



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Project Number : LAUSD - ROOSEVELT + HS, 265642.00

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID EB-13-10/29/16

Lab ID: 1603827-45

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1221	ND	1.0	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1232	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1242	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1248	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1254	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1260	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1262	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
Aroclor 1268	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:05	
<i>Surrogate: Decachlorobiphenyl</i>	<i>19.8 %</i>		<i>7 - 127</i>		B6K0167	11/03/2016	<i>11/07/16 14:05</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>44.4 %</i>		<i>14 - 122</i>		B6K0167	11/03/2016	<i>11/07/16 14:05</i>	



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Project Number : LAUSD - ROOSEVELT + HS, 265642.00

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID AA2573-2-0.5(Duplicate)

Lab ID: 1603827-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:51	
Lead	3.5	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:51	



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Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID AA2685-4-2.5(Duplicate)

Lab ID: 1603827-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.0	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:52	
Lead	10	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:52	



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Client Sample ID P14-0.5(Duplicate)

Lab ID: 1603827-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:53	
Lead	6.4	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:53	



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Reported : 11/09/2016

Client Sample ID AA2543-2-2.5(Duplicate)

Lab ID: 1603827-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	24	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:54	
Lead	17	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:54	



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Reported : 11/09/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K0211 - EPA 3050B_S									
Blank (B6K0211-BLK1)				Prepared: 11/5/2016 Analyzed: 11/7/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6K0211-BS1)				Prepared: 11/5/2016 Analyzed: 11/7/2016					
Arsenic	45.5164	1.0	50.0000		91.0	80 - 120			
Lead	48.4198	1.0	50.0000		96.8	80 - 120			
Duplicate (B6K0211-DUP1)				Source: 1603825-07		Prepared: 11/5/2016 Analyzed: 11/7/2016			
Arsenic	3.85033	1.0		4.03344	NR		4.65	20	
Lead	9.97038	1.0		10.2934	NR		3.19	20	
Matrix Spike (B6K0211-MS1)				Source: 1603825-07		Prepared: 11/5/2016 Analyzed: 11/7/2016			
Arsenic	95.2486	1.0	125.628	4.03344	72.6	59 - 103			
Lead	99.4693	1.0	125.628	10.2934	71.0	34 - 129			
Matrix Spike Dup (B6K0211-MSD1)				Source: 1603825-07		Prepared: 11/5/2016 Analyzed: 11/7/2016			
Arsenic	95.7832	1.0	125.628	4.03344	73.0	59 - 103	0.560	20	
Lead	99.5092	1.0	125.628	10.2934	71.0	34 - 129	0.0401	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0212 - EPA 3050B_S

Blank (B6K0212-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0212-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	44.7957	1.0	50.0000		89.6	80 - 120			
Lead	47.5382	1.0	50.0000		95.1	80 - 120			

Duplicate (B6K0212-DUP1)

Source: 1603827-05

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	2.18708	1.0		2.14047	NR		2.15	20	
Lead	3.90942	1.0		4.50315	NR		14.1	20	

Matrix Spike (B6K0212-MS1)

Source: 1603827-05

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	57.6908	1.0	124.378	2.14047	44.7	59 - 103			M1
Lead	58.2294	1.0	124.378	4.50315	43.2	34 - 129			

Matrix Spike Dup (B6K0212-MSD1)

Source: 1603827-05

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	81.2116	1.0	125.000	2.14047	63.3	59 - 103	33.9	20	R
Lead	81.7260	1.0	125.000	4.50315	61.8	34 - 129	33.6	20	R



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0213 - EPA 3050B_S

Blank (B6K0213-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0213-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	45.2989	1.0	50.0000		90.6	80 - 120			
Lead	47.0530	1.0	50.0000		94.1	80 - 120			

Duplicate (B6K0213-DUP1)

Source: 1603827-24

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	19.8494	1.0		19.5767	NR		1.38	20	
Lead	15.0395	1.0		15.8794	NR		5.43	20	

Matrix Spike (B6K0213-MS1)

Source: 1603827-24

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	110.068	1.0	125.000	19.5767	72.4	59 - 103			
Lead	178.936	1.0	125.000	15.8794	130	34 - 129			M1

Matrix Spike Dup (B6K0213-MSD1)

Source: 1603827-24

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	116.202	1.0	125.628	19.5767	76.9	59 - 103	5.42	20	
Lead	104.585	1.0	125.628	15.8794	70.6	34 - 129	52.4	20	R



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Report To : John Nordenstam
Reported : 11/09/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0214 - EPA 3050B_S

Blank (B6K0214-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0214-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	43.9092	1.0	50.0000		87.8	80 - 120			
Lead	46.7172	1.0	50.0000		93.4	80 - 120			

Duplicate (B6K0214-DUP1)

Source: 1603827-43

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	6.68335	1.0		6.15816	NR		8.18	20	
Lead	10.0694	1.0		12.2308	NR		19.4	20	

Matrix Spike (B6K0214-MS1)

Source: 1603827-43

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	123.236	1.0	125.000	6.15816	93.7	59 - 103			
Lead	128.662	1.0	125.000	12.2308	93.1	34 - 129			

Matrix Spike Dup (B6K0214-MSD1)

Source: 1603827-43

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	114.626	1.0	124.378	6.15816	87.2	59 - 103	7.24	20	
Lead	117.274	1.0	124.378	12.2308	84.5	34 - 129	9.26	20	



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Reported : 11/09/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0252 - EPA 3010A_W

Blank (B6K0252-BLK1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010		NR	
Lead	ND	0.0050		NR	

LCS (B6K0252-BS1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	0.831160	0.010	1.00000	83.1	80 - 120
Lead	0.941874	0.0050	1.00000	94.2	80 - 120

Duplicate (B6K0252-DUP1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010		ND	NR			20
Lead	ND	0.0050		ND	NR			20

Matrix Spike (B6K0252-MS1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.05852	0.010	2.50000	ND	82.3	74 - 123
Lead	2.25178	0.0050	2.50000	ND	90.1	78 - 109

Matrix Spike Dup (B6K0252-MSD1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.12893	0.010	2.50000	ND	85.2	74 - 123	3.36	20
Lead	2.32413	0.0050	2.50000	ND	93.0	78 - 109	3.16	20



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Reported : 11/09/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Reported : 11/09/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

Blank (B6K0167-BLK1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Methoxychlor [2C]	ND	0.25		NR				
Toxaphene	ND	2.5		NR				
Toxaphene [2C]	ND	2.5		NR				
Surrogate: Decachlorobiphenyl	0.5125		0.500000	102	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.5278		0.500000	106	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5037		0.500000	101	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5557		0.500000	111	14 - 122			

LCS (B6K0167-BS1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.586325	0.05	0.500000	117	59 - 109			L3
4,4'-DDD [2C]	0.589790	0.05	0.500000	118	59 - 109			L3
4,4'-DDE	0.559345	0.05	0.500000	112	63 - 101			L3
4,4'-DDE [2C]	0.565800	0.05	0.500000	113	63 - 101			L3
4,4'-DDT	0.513565	0.05	0.500000	103	36 - 96			L3
4,4'-DDT [2C]	0.434225	0.05	0.500000	86.8	36 - 96			L3
Aldrin	0.540205	0.02	0.500000	108	64 - 96			L3
Aldrin [2C]	0.565045	0.02	0.500000	113	64 - 96			L3
alpha-BHC	0.551640	0.02	0.500000	110	63 - 92			L3
alpha-BHC [2C]	0.572725	0.02	0.500000	115	63 - 92			L3
alpha-Chlordane	0.546770	0.02	0.500000	109	63 - 101			L3
alpha-Chlordane [2C]	0.561780	0.02	0.500000	112	63 - 101			L3
beta-BHC	0.528540	0.02	0.500000	106	58 - 95			L3
beta-BHC [2C]	0.551630	0.02	0.500000	110	58 - 95			L3
delta-BHC	0.538760	0.02	0.500000	108	37 - 107			L3
delta-BHC [2C]	0.569230	0.02	0.500000	114	37 - 107			L3
Dieldrin	0.574460	0.05	0.500000	115	62 - 102			L3
Dieldrin [2C]	0.583430	0.05	0.500000	117	62 - 102			L3
Endosulfan I	0.533240	0.02	0.500000	107	61 - 97			L3
Endosulfan I [2C]	0.558850	0.02	0.500000	112	61 - 97			L3
Endosulfan II	0.563435	0.05	0.500000	113	61 - 103			L3
Endosulfan II [2C]	0.563345	0.05	0.500000	113	61 - 103			L3
Endosulfan sulfate	0.542155	0.05	0.500000	108	60 - 112			L3
Endosulfan Sulfate [2C]	0.549890	0.05	0.500000	110	60 - 112			L3
Endrin	0.600925	0.05	0.500000	120	62 - 103			L3
Endrin [2C]	0.606590	0.05	0.500000	121	62 - 103			L3
Endrin aldehyde	0.557760	0.05	0.500000	112	64 - 116			L3
Endrin aldehyde [2C]	0.560790	0.05	0.500000	112	64 - 116			L3
Endrin ketone	0.570840	0.05	0.500000	114	56 - 113			L3
Endrin ketone [2C]	0.552315	0.05	0.500000	110	56 - 113			L3
gamma-BHC	0.579625	0.02	0.500000	116	64 - 95			L3
gamma-BHC [2C]	0.586315	0.02	0.500000	117	64 - 95			L3



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS (B6K0167-BS1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

gamma-Chlordane	0.541570	0.02	0.500000		108	64 - 99			L3
gamma-Chlordane [2C]	0.557085	0.02	0.500000		111	64 - 99			L3
Heptachlor	0.577470	0.02	0.500000		115	64 - 93			L3
Heptachlor [2C]	0.559495	0.02	0.500000		112	64 - 93			L3
Heptachlor epoxide	0.545255	0.02	0.500000		109	65 - 98			L3
Heptachlor epoxide [2C]	0.556585	0.02	0.500000		111	65 - 98			L3
Methoxychlor	0.551315	0.25	0.500000		110	0 - 141			
Methoxychlor [2C]	0.453815	0.25	0.500000		90.8	0 - 141			
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.6053</i>		<i>0.500000</i>		<i>121</i>	<i>7 - 127</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.6312</i>		<i>0.500000</i>		<i>126</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.5451</i>		<i>0.500000</i>		<i>109</i>	<i>14 - 122</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.5905</i>		<i>0.500000</i>		<i>118</i>	<i>14 - 122</i>			

LCS Dup (B6K0167-BSD1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.574950	0.05	0.500000		115	59 - 109	1.96	20	L3
4,4'-DDD [2C]	0.576165	0.05	0.500000		115	59 - 109	2.34	20	L3
4,4'-DDE	0.549275	0.05	0.500000		110	63 - 101	1.82	20	L3
4,4'-DDE [2C]	0.551845	0.05	0.500000		110	63 - 101	2.50	20	L3
4,4'-DDT	0.505680	0.05	0.500000		101	36 - 96	1.55	20	L3
4,4'-DDT [2C]	0.417310	0.05	0.500000		83.5	36 - 96	3.97	20	
Aldrin	0.537410	0.02	0.500000		107	64 - 96	0.519	20	L3
Aldrin [2C]	0.552480	0.02	0.500000		110	64 - 96	2.25	20	L3
alpha-BHC	0.542470	0.02	0.500000		108	63 - 92	1.68	20	L3
alpha-BHC [2C]	0.561720	0.02	0.500000		112	63 - 92	1.94	20	L3
alpha-Chlordane	0.536085	0.02	0.500000		107	63 - 101	1.97	20	L3
alpha-Chlordane [2C]	0.547430	0.02	0.500000		109	63 - 101	2.59	20	L3
beta-BHC	0.519175	0.02	0.500000		104	58 - 95	1.79	20	L3
beta-BHC [2C]	0.538660	0.02	0.500000		108	58 - 95	2.38	20	L3
delta-BHC	0.528150	0.02	0.500000		106	37 - 107	1.99	20	
delta-BHC [2C]	0.556970	0.02	0.500000		111	37 - 107	2.18	20	L3
Dieldrin	0.564985	0.05	0.500000		113	62 - 102	1.66	20	L3
Dieldrin [2C]	0.570840	0.05	0.500000		114	62 - 102	2.18	20	L3
Endosulfan I	0.526015	0.02	0.500000		105	61 - 97	1.36	20	L3
Endosulfan I [2C]	0.548805	0.02	0.500000		110	61 - 97	1.81	20	L3
Endosulfan II	0.555550	0.05	0.500000		111	61 - 103	1.41	20	L3
Endosulfan II [2C]	0.552985	0.05	0.500000		111	61 - 103	1.86	20	L3
Endosulfan sulfate	0.537185	0.05	0.500000		107	60 - 112	0.921	20	
Endosulfan Sulfate [2C]	0.540225	0.05	0.500000		108	60 - 112	1.77	20	
Endrin	0.592450	0.05	0.500000		118	62 - 103	1.42	20	L3
Endrin [2C]	0.595640	0.05	0.500000		119	62 - 103	1.82	20	L3
Endrin aldehyde	0.555635	0.05	0.500000		111	64 - 116	0.382	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD - ROOSEVELT + HS, 265642.00
Report To : John Nordenstam
Reported : 11/09/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6K0167-BSD1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Endrin aldehyde [2C]	0.561430	0.05	0.500000		112	64 - 116	0.114	20	
Endrin ketone	0.564715	0.05	0.500000		113	56 - 113	1.08	20	
Endrin ketone [2C]	0.539740	0.05	0.500000		108	56 - 113	2.30	20	
gamma-BHC	0.568705	0.02	0.500000		114	64 - 95	1.90	20	L3
gamma-BHC [2C]	0.572955	0.02	0.500000		115	64 - 95	2.30	20	L3
gamma-Chlordane	0.531205	0.02	0.500000		106	64 - 99	1.93	20	L3
gamma-Chlordane [2C]	0.542850	0.02	0.500000		109	64 - 99	2.59	20	L3
Heptachlor	0.568775	0.02	0.500000		114	64 - 93	1.52	20	L3
Heptachlor [2C]	0.546635	0.02	0.500000		109	64 - 93	2.33	20	L3
Heptachlor epoxide	0.538770	0.02	0.500000		108	65 - 98	1.20	20	L3
Heptachlor epoxide [2C]	0.547200	0.02	0.500000		109	65 - 98	1.70	20	L3
Methoxychlor	0.542035	0.25	0.500000		108	0 - 141	1.70	20	
Methoxychlor [2C]	0.433555	0.25	0.500000		86.7	0 - 141	4.57	20	
Surrogate: Decachlorobiphenyl	0.5993		0.500000		120	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.6106		0.500000		122	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5357		0.500000		107	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5798		0.500000		116	14 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD - ROOSEVELT + HS, 265642.00
Report To : John Nordenstam
Reported : 11/09/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.4041</i>		<i>0.500000</i>		<i>80.8</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.6008</i>		<i>0.500000</i>		<i>120</i>	<i>14 - 122</i>			

LCS (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.06606	0.50	5.00000		101	68 - 96			S12
Aroclor 1260	5.06638	0.50	5.00000		101	64 - 106			

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3855</i>		<i>0.500000</i>		<i>77.1</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.5881</i>		<i>0.500000</i>		<i>118</i>	<i>14 - 122</i>			

LCS Dup (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.10486	0.50	5.00000		102	68 - 96	0.763	20	S12
Aroclor 1260	5.15552	0.50	5.00000		103	64 - 106	1.74	20	

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3729</i>		<i>0.500000</i>		<i>74.6</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.5905</i>		<i>0.500000</i>		<i>118</i>	<i>14 - 122</i>			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD - ROOSEVELT + HS, 265642.00
Report To : John Nordenstam
Reported : 11/09/2016

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L3	Laboratory control sample outside in-house established limits but within method criteria.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD
Page 1 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCCOC Ver: 20130715

Method of Transport
Client ☐ ATL ☐ OnTrac
FedEx ☐ GSO
Other: ☐

Simple Conditions Upon Receipt
Condition Y N
1. CHILLED ☒ ☐
2. HEADSPACE (VSA) ☐ ☐
3. CONTAINER IMPACT ☐ ☐
4. SEALED ☐ ☐
5. # OF SAMPLES MATCH COC ☐ ☐
6. PRESERVED ☐ ☐
7. COOLER TEMP. deg C: 5.2°

Company: **TRC Solutions Inc** Address: **9685 Research Dr** City: **Irvine** State: **CA** Zip: **92618**
Attn: **John Nordenstam** Email: **jnordenstam@trcsolutions.com**
Company: **TRC Solutions Inc**
Address: **9685 Research Dr** City: **Irvine** State: **CA** Zip: **92618**
Tel: **949-341-7467** Fax: **949-727-7311**
SEND INVOICE TO: ☒ same as SEND REPORT TO

Project Name:		Quote No:	Special Instructions/Comments:	
LAUSD - Roosevelt HS		E161131		
Project No.:	265642,000/TA02	PO #:		
Sampler:	Warren Howe - 6311	100816		
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	160382-01	AA1917-4 - 0.5		10/29/16 0715
2	-02	AA1917-4 - 2.5		10/29/16 0726
3	-03	AA1917-3-0.5		10/29/16 0730
4	-04	AA1917-3-2.5		10/29/16 0740
5	-05	AA1917-2-0.5		10/29/16 0750
6	-06	AA1917-2-2.5		10/29/16 0755
7	-07	AA1917-1-0.5		10/29/16 0802
8	-08	AA1917-1-2.5		10/29/16 0805
9	-09	AA2573-2-0.5		10/29/16 0810
10	-10	AA2573-2-2.5		10/29/16 0815

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
TO-15		SOIL / SEDIMENT / SLUDGE		Type: 1=Tube; 2=VOA; 3=Liter; 4=Pin; 5=Jar; 6=Teal; 7=Canister		Routine	
6010 / 7000 (Title 22 Metals)						Caltrans	
8082 (PCBs)						Legal	
8081 (Organochlorine Pesticides)						RWQCB	
8270 (Semi-volatiles)						Level IV	
8015 (DRO)							
8015 (GRO)							
8260 / 624 (Volatiles)							

REMARKS
5=Zn (IAD); 6=NaOH; 7=MA2503
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=AC

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: **Warren Howe** Date: **10/29/16** Time: **1:50**
Relinquished by: **Alan Ramirez** Date: **10/29/16** Time: **1:54**
Relinquished by: **Alan Ramirez** Date: **10/29/16** Time: **1:56**

Signature: **Alan Ramirez** Submitter Print Name: **Alan Ramirez** Signature: **Alan Ramirez**

1. Sample received hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 1: 100% SURCHARGE NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% SURCHARGE 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 30% SURCHARGE 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% SURCHARGE 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Samples requiring shorter TATs will incur a surcharge respective to the subcontract lab used for analysis.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$25 per reproposed EDD.
10. Rush TAT/SLIC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Page 2 of 5

ADVANCED TECHNOLOGY

3275 Walnut Ave., Signal Hill, CA 90755
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Instruction: Complete all shaded areas.


Page 2 of 5

Method of Transport		Sample Conditions Upon Receipt					ATLCQC Ver.: 20130715
		Condition		Y		N	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg. C	<input type="checkbox"/>	<u>5.20</u>
<input type="checkbox"/> Other: _____	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>			

Company: TRC Solutions Inc		Address: 9685 Irvine Research Dr		Tel: 949-341-7467	
		City: Irvine		Fax: 949-727-7311	
SEND REPORT TO:		SEND INVOICE TO:		<input checked="" type="checkbox"/> same as SEND REPORT TO	
Attn:	John Nordenstam	Attn:		Email:	
Company:	TRC Solutions Inc	Company:	jnordenstam@trcsolutions.com		
Address:	9685 Irvine Research Dr	Address:			
City:	Irvine	City:	92618	State:	
		State:	CA	Zip:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:		PO #:			
Sample:					
LAUSD - Roosevelt + HS	2656420000/TA02	1603827-11	AA2685 - 2 - 0.5	10/29/16	0825
		-12	AA2685 - 2 - 2.5	10/29/16	0830
		-13	AA2685 - 1 - 0.5	10/29/16	0840
		-14	AA2685 - 1 - 2.5	10/29/16	0845
		-15	AA2685 - 3 - 0.5	10/29/16	1035
		-16	AA2685 - 3 - 2.5	10/29/16	1039
		-17	AA2685 - 4 - 0.5	10/29/16	0950
		-18	AA2685 - 4 - 2.5	10/29/16	0955
		-19	AA2684 - 4 - 0.5	10/29/16	0959
		-20	AA2684 - 4 - 2.5	10/29/16	1005

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name Allen Premier Signature 

samples will be disposed of after 14 calendar days after receipt of samples. Electronic records maintained for five (5) years from report date. Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees: Complementary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.

Liquid & Solid Samples: Complementary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.

Hard Copy Reports: Complementary storage for ten (10) calendar days from receipt of samples; \$1750 per hard copy report requested; \$500 per regenerated/reformat ed report; \$25 per copy and regenerated reports/EDDs; \$1750 per hard copy report requested; \$500 per regenerated/reformat ed report; \$25 per copy and regenerated reports/EDDs.

Risk Tolerant/STC samples: add 2 days to analysis TAT for extraction on procedure.

Label/Reprint samples: will incur a disposal fee of \$7 per sample.

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Warren Howe	10/29/16	1450	Alan Panner	10-29-16	1500
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Alan Panner	10/29/16	1546	Edward Poliquin	10-29-16	1546
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc		Address: 9685 Research Dr		Tel: 949-341-7467	
Attn: John Nordens tam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions Inc		Address: 9685 Research Dr		Tel: 949-341-7467	
Attn: John Nordens tam		City: Irvine		State: CA Zip: 92618	
Company: TRC Solutions Inc		Address: 9685 Research Dr		Tel: 949-341-7467	
Attn: John Nordens tam		City: Irvine		State: CA Zip: 92618	

Project Name:	Quote No:	Special Instructions/Comments:
LAUSD - Roasercel + HS	E16I131	
265642.0000/TA02	PO #:	
Wardlaw Howe - WH	100816	
ITEM	Sample ID / Location	Sample Description
1	1603827-21 AA2684-3 - 0.5	10/29/16 1004
2	-22 AA2684-3 - 2.05	10/29/16 1007
3	-23 AA2684-2 - 0.5	10/29/16 1010
4	-24 AA2684-2 - 2.05	10/29/16 1015
5	-25 AA2684-1 - 0.5	10/29/16 1020
6	-26 AA2684-1 - 2.05	10/29/16 1025
7	-27 P14 WH AA2685-3 - 0.5	10/29/16 1105
8	-28 P14 WH AA2685-3 - 2.05	10/29/16 1110
9	-29 Q-14 - 0.5	10/29/16 1125
10	-30 Q-14 - 2.05	10/29/16 1135

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **Allan Ramirez** Date: **10-29-16** Time: **15:00**

Submitter Print Name: **Allan Ramirez** Signature: **Allan Ramirez**

Relinquished by: (Signature and Printed Name) **Wardlaw Howe** Date: **10/29/16** Time: **14:50**

Relinquished by: (Signature and Printed Name) **Allan Ramirez** Date: **10-29-16** Time: **15:46**

Relinquished by: (Signature and Printed Name) **Allan Ramirez** Date: **10-29-16** Time: **15:46**

CHAIN OF CUSTODY RECORD

Page 4 of 5

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

For Laboratory Use Only
ATLCOG Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
Condition	Y	N	Condition	Y	N
1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC	<input type="checkbox"/>	<input type="checkbox"/>
2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED	<input type="checkbox"/>	<input type="checkbox"/>
3. CONTAINER IMPACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg C	<input type="checkbox"/>	<input type="checkbox"/>
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>			

Client: ☐ ATL ☐ FedEx ☐ GSO ☐ Other: _____

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc	Address: 9685 Research Dr	Tel: 949-341-7467
City: Irvine	State: CA	Zip: 92618
SEND REPORT TO:		
Attn: John Nordenstam jnordenstam@trcsolutions.com	Email: _____	
Company: TRC Solutions Inc	Address: _____	
Address: 9685 Research Dr	City: _____	State: _____
City: Irvine	State: CA	Zip: 92618

Project Name: LAUSD-Roosevelt HS		Quote No: E16I131	Special Instructions/Comments:	
Project No.: 265642.000 / TA02		PO #: _____		
Sampler: Warden Howe - 644 100816				
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1603927-31	R14 - 0.5		10/29/16 1145
2	1-32	R14 - 2.5		10/29/16 1150
3	33	AA2543-3 - 0.5		10/29/16 1200
4	34	AA2543-3 - 2.5		10/29/16 1240
5	35	AA2543 - 2 - 0.5		10/29/16 1220
6	36	AA2543 - 2 - 2.5		10/29/16 1225
7	37	AA2543 - 1 - 0.5		10/29/16 1235
8	38	AA2543 - 1 - 2.5		10/29/16 1245
9	39	AA2543 - 6 - 0.5		10/29/16 1300
10	40	AA2543 - 6 - 2.5		10/29/16 1310

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: *Allen Ramirez* Date: **10-29-16** Time: **1500**

Submitter Print Name: **Allen Ramirez**

Relinquished by: (Signature and Printed Name) **Warden Howe** Date: **10/29/16** Time: **1450**

Relinquished by: (Signature and Printed Name) *Allen Ramirez* Date: **10-29-16** Time: **1546**

Relinquished by: (Signature and Printed Name) *Allen Ramirez* Date: **10-29-16** Time: **1546**

CHAIN OF CUSTODY RECORD

Page 5 of 5

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc		Address: 9685 Research		Tel: 949-341-7467	
Attn: John Norden stam jnordenstam@trcsolutions.com		City: Irvine		Fax: 949-727-7311	
Company: TRC Solutions Inc		State: CA		Zip: 92618	
Address: 9685 Research		City: Irvine		State: CA	
City: Irvine		State: CA		Zip: 92618	

Project Name: LAUSD - Roosevelt HS		Quote No: E16T131	Special Instructions/Comments:	
Project No: 265612, 0000/TA02		PO #: 100816		
Sampler: Wardon Howe - 6344				
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1603824-41	AA2543-5-0.5		10/29/16 12:55
2	-42	AA2543-5-2.05		10/29/16 13:04
3	-43	AA2543-4-0.5		10/29/16 13:20
4	-44	AA2543-4-2.5		10/29/16 13:30
5	-45	EB-13-10/29/16		10/29/16 14:45
6				
7				
8				
9				
10				

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **Allan Ramirez** Date: **10-29-16** Time: **15:00**

Submitter Print Name: **Allan Ramirez**

Relinquished by: (Signature and Printed Name) **Wardon Howe** Date: **10/29/16** Time: **14:50**

Relinquished by: (Signature and Printed Name) **Allan Ramirez** Date: **10-29-16** Time: **15:46**

Relinquished by: (Signature and Printed Name) **Allan Ramirez** Date: **10-29-16** Time: **15:46**

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Monday, October 31, 2016 8:09 AM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected October 29 and 30, 2016

Rachelle,

Please make the following additions/changes to the requested analyses for soil samples collected on October 29 and 30, 2016, at Roosevelt High School:

- **Analyze all soils samples collected at 2.5 feet for Arsenic and Lead** (the COC mistakenly requested that these samples be placed on Hold).
- **Please correct the sample names** for Samples CR-1-0.5, CR-1-2.5, CR-2-0.5, CR-2-2.5, CR-3-0.5, CR-3-2.5, CR-4-0.5, CR-4-2.5, CR-5-0.5, CR-5-2.5, CR-6-0.5, and CR-6-2.5 – the sample names should be CR1-1-0.5, CR1-1-2.5, CR1-2-0.5, CR1-2-2.5, CR1-3-0.5, CR1-3-2.5, CR1-4-0.5, CR1-4-2.5, CR1-5-0.5, CR1-5-2.5, CR1-6-0.5, and CR1-6-2.5 (the prefix for all samples should be CR1, not CR).
- **Do not perform PCB analysis (EPA Method 8082) on any of the discrete soil samples submitted for analysis.** Samples CR-1-0.5, CR-2-0.5, CR-3-0.5, CR-4-0.5, CR-5-0.5, CR-6-0.5, AS-1-0.5, AS-2-0.5, AS-3-0.5, and AS-4-0.5 were mistakenly identified on the COC as needing PCB analysis. Only composite soil samples will be analyzed for PCBs. A separate email request with instructions on compositing discrete soil samples for PCB and OCP analysis will be submitted later today.
- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 29, 2016 (100 soil samples)

Sample AA2573-2-0.5
Sample AA2685-4-2.5
Sample P14-0.5
Sample AA2543-2-2.5
Sample IA-3-0.5
Sample AS-2-2.5
Sample IM-3-0.5
Sample IM-6-2.5
Sample CRA-1-0.5
Sample CRB-4-2.5

Samples collected on October 30, 2016 (32 soil samples)

Sample CR1-1-0.5 (mistakenly labeled on COC as CR-1-0.5)
Sample AA2249-2-2.5
Sample AA2038-4-2.5

Please call me or John Nordenstam if you have any questions regarding this request.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



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January 11, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603827

Client Reference : LAUSD - ROOSEVELT + HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD - ROOSEVELT + HS, 265642.00

Report To : John Nordenstam

Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA1917-4-2.5	1603827-02	Soil	10/29/16 7:20	10/29/16 15:46

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD - ROOSEVELT + HS, 265642.00

Report To : John Nordenstam

Reported : 01/11/2017

Client Sample ID AA1917-4-2.5

Lab ID: 1603827-02

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.52	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 17:04	J



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Reported : 01/11/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7A0221 - STLC_S Extraction

Blank (B7A0221-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0221-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0221-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.14591		2.00000		107	80 - 120			
Duplicate (B7A0221-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	9.66282	1.0		9.72033	NR		0.593	20	
Duplicate (B7A0221-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	18.7563	1.0		18.6238	NR		0.709	20	
Matrix Spike (B7A0221-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.4314		2.00000	9.72033	85.6	44 - 130			
Matrix Spike (B7A0221-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	19.9180		2.00000	18.6238	64.7	44 - 130			
Matrix Spike Dup (B7A0221-MSD1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.7140		2.00000	9.72033	99.7	44 - 130	2.44	20	



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Irvine , CA 92618

Project Number : LAUSD - ROOSEVELT + HS, 265642.00

Report To : John Nordenstam

Reported : 01/11/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L		
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B		TCLP mg/L		
				TTL mg/kg	STLC mg/L	TTL mg/kg	STLC mg/L			
Units: Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19	X		Perform laboratory analysis for STLC for lead	
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16	---	---		
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25	---	---		
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26	---	---		
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17	---	---		
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17	---	---		
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17	---	---		
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16	---	---		
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26	---	---		
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34	---	---		
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35	---	---		
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11	---	---		
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9	---	---		
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13	---	---		
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15	---	---		
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0	---	---		
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10	---	---		
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13	---	---		
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8	---	---		
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12	---	---		
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14	---	---		
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12	---	---		
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19	---	---		
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13	---	---		
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14	---	---		
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7	---	---		
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35	---	---		
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X	---	Perform laboratory analysis for STLC for lead	
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X	---	Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X	---	Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74	---	---		
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61	---	---		
IM-3c-0-5	11/23/2016	1604246	0.5	66	X	---	---	---	Perform laboratory analysis for STLC for arsenic	
IM-3c-2-5	11/23/2016	1604246	2.5	22	---	---	---	---		

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Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLc	STLc	TTLc	STLc	TCLP	
Units:				TTLc	STLc	TTLc	STLc	TCLP	
Screening Level:				mg/kg	mg/L	mg/kg	mg/L	mg/L	
IM-3c-3.5	11/23/2016	1604246	3.5	12	5.0	80	5.0		
IM-4-0.5	10/30/2016	1603842	0.5	16	---	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	16	---	66	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	20	---	22	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	29	---	54	---	---	
IM-5d-0.5	11/23/2016	1603842	0.5	22	---	40	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	24	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	14	---	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	Perform laboratory analysis for STLc for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.6	---	110	X	X	Perform laboratory analysis for STLc for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	3.5	---	140	X	X	Perform laboratory analysis for STLc for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	89	X	X	Perform laboratory analysis for STLc for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	720	X	X	Perform laboratory analysis for STLc for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---	Perform laboratory analysis for STLc for lead
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X	X	Perform laboratory analysis for STLc for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X	X	Perform laboratory analysis for STLc for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X	X	Perform laboratory analysis for STLc for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X	X	Perform laboratory analysis for STLc for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X	X	Perform laboratory analysis for STLc for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X	X	Perform laboratory analysis for STLc for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	Perform laboratory analysis for STLc for lead
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X	X	Perform laboratory analysis for STLc for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X	X	Perform laboratory analysis for STLc for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X	X	Perform laboratory analysis for STLc for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X	X	Perform laboratory analysis for STLc for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X	X	Perform laboratory analysis for STLc for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X	X	Perform laboratory analysis for STLc for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X	X	Perform laboratory analysis for STLc for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X	X	Perform laboratory analysis for STLc for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X	X	Perform laboratory analysis for STLc for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X	X	Perform laboratory analysis for STLc for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X	X	Perform laboratory analysis for STLc for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X	X	Perform laboratory analysis for STLc for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X	X	Perform laboratory analysis for STLc for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X	X	Perform laboratory analysis for STLc for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X	X	Perform laboratory analysis for STLc for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X	X	Perform laboratory analysis for STLc for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X	X	Perform laboratory analysis for STLc for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X	X	Perform laboratory analysis for STLc for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X	X	Perform laboratory analysis for STLc for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Screening Level:				12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



November 10, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603828
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", followed by the letters "Ar" in a smaller, cursive script.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IA-6-0.5	1603828-01	Soil	10/29/16 7:30	10/29/16 15:50
IA-6-2.5	1603828-02	Soil	10/29/16 7:35	10/29/16 15:50
IA-5-0.5	1603828-03	Soil	10/29/16 7:40	10/29/16 15:50
IA-5-2.5	1603828-04	Soil	10/29/16 7:45	10/29/16 15:50
IA-1-0.5	1603828-05	Soil	10/29/16 8:01	10/29/16 15:50
IA-1-2.5	1603828-06	Soil	10/29/16 8:04	10/29/16 15:50
IA-2-0.5	1603828-07	Soil	10/29/16 8:32	10/29/16 15:50
IA-2-2.5	1603828-08	Soil	10/29/16 8:38	10/29/16 15:50
IA-3-0.5	1603828-09	Soil	10/29/16 8:45	10/29/16 15:50
IA-3-2.5	1603828-10	Soil	10/29/16 8:51	10/29/16 15:50
AS-1-0.5	1603828-11	Soil	10/29/16 9:12	10/29/16 15:50
AS-1-2.5	1603828-12	Soil	10/29/16 9:19	10/29/16 15:50
AS-4-0.5	1603828-13	Soil	10/29/16 9:25	10/29/16 15:50
AS-4-2.5	1603828-14	Soil	10/29/16 9:33	10/29/16 15:50
AS-3-0.5	1603828-15	Soil	10/29/16 9:46	10/29/16 15:50
AS-3-2.5	1603828-16	Soil	10/29/16 9:56	10/29/16 15:50
AS-2-0.5	1603828-17	Soil	10/29/16 10:10	10/29/16 15:50
AS-2-2.5	1603828-18	Soil	10/29/16 10:16	10/29/16 15:50
IA-4-0.5	1603828-19	Soil	10/29/16 10:31	10/29/16 15:50
IA-4-2.5	1603828-20	Soil	10/29/16 10:42	10/29/16 15:50
P16-0.5	1603828-21	Soil	10/29/16 11:02	10/29/16 15:50
P16-2.5	1603828-22	Soil	10/29/16 11:05	10/29/16 15:50
P15-0.5	1603828-23	Soil	10/29/16 11:09	10/29/16 15:50
P15-2.5	1603828-24	Soil	10/29/16 11:11	10/29/16 15:50
Q16-0.5	1603828-25	Soil	10/29/16 11:13	10/29/16 15:50
Q16-2.5	1603828-26	Soil	10/29/16 11:16	10/29/16 15:50
IM-3-0.5	1603828-27	Soil	10/29/16 11:26	10/29/16 15:50
IM-3-2.5	1603828-28	Soil	10/29/16 11:29	10/29/16 15:50
IM-2-0.5	1603828-29	Soil	10/29/16 11:32	10/29/16 15:50
IM-2-2.5	1603828-30	Soil	10/29/16 11:35	10/29/16 15:50
IM-1-0.5	1603828-31	Soil	10/29/16 11:38	10/29/16 15:50
IM-1-2.5	1603828-32	Soil	10/29/16 11:41	10/29/16 15:50
IM-4-0.5	1603828-33	Soil	10/29/16 11:49	10/29/16 15:50
IM-4-2.5	1603828-34	Soil	10/29/16 11:52	10/29/16 15:50
IM-6-0.5	1603828-35	Soil	10/29/16 12:02	10/29/16 15:50
IM-6-2.5	1603828-36	Soil	10/29/16 12:05	10/29/16 15:50
IM-5-0.5	1603828-37	Soil	10/29/16 12:44	10/29/16 15:50



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IM-5-2.5	1603828-38	Soil	10/29/16 12:48	10/29/16 15:50
R16-0.5	1603828-39	Soil	10/29/16 12:54	10/29/16 15:50
R16-2.5	1603828-40	Soil	10/29/16 12:58	10/29/16 15:50
R15-0.5	1603828-41	Soil	10/29/16 13:00	10/29/16 15:50
R15-2.5	1603828-42	Soil	10/29/16 13:03	10/29/16 15:50
Q15-0.5	1603828-43	Soil	10/29/16 13:07	10/29/16 15:50
Q15-2.5	1603828-44	Soil	10/29/16 13:12	10/29/16 15:50
CRA-1-0.5	1603828-45	Soil	10/29/16 13:23	10/29/16 15:50
CRA-1-2.5	1603828-46	Soil	10/29/16 13:33	10/29/16 15:50
CRB-3-0.5	1603828-47	Soil	10/29/16 13:37	10/29/16 15:50
CRB-3-2.5	1603828-48	Soil	10/29/16 13:42	10/29/16 15:50
CRB-2-0.5	1603828-49	Soil	10/29/16 13:48	10/29/16 15:50
CRB-2-2.5	1603828-50	Soil	10/29/16 13:56	10/29/16 15:50
CRB-1-0.5	1603828-51	Soil	10/29/16 13:59	10/29/16 15:50
CRB-1-2.5	1603828-52	Soil	10/29/16 14:06	10/29/16 15:50
CRB-4-0.5	1603828-53	Soil	10/29/16 14:11	10/29/16 15:50
CRB-4-2.5	1603828-54	Soil	10/29/16 14:20	10/29/16 15:50
CRA-4-0.5	1603828-55	Soil	10/29/16 14:29	10/29/16 15:50
CRA-4-2.5	1603828-56	Soil	10/29/16 14:35	10/29/16 15:50
EB-14-10/29/16	1603828-57	Water	10/29/16 14:46	10/29/16 15:50
IA-3-0.5(Duplicate)	1603828-58	Soil	10/29/16 8:45	10/29/16 15:50
AS-2-2.5(Duplicate)	1603828-59	Soil	10/29/16 10:16	10/29/16 15:50
IM-3-0.5(Duplicate)	1603828-60	Soil	10/29/16 11:26	10/29/16 15:50
IM-6-2.5(Duplicate)	1603828-61	Soil	10/29/16 12:05	10/29/16 15:50
CRA-1-0.5(Duplicate)	1603828-62	Soil	10/29/16 13:23	10/29/16 15:50
CRB-4-2.5(Duplicate)	1603828-63	Soil	10/29/16 14:20	10/29/16 15:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID IA-6-0.5

Lab ID: 1603828-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:55	
Lead	24	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:55	



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Client Sample ID IA-6-2.5

Lab ID: 1603828-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 16:59	
Lead	35	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 16:59	



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Client Sample ID IA-5-0.5

Lab ID: 1603828-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:00	
Lead	29	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:00	



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Client Sample ID IA-5-2.5

Lab ID: 1603828-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:01	
Lead	12	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:01	



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Client Sample ID IA-1-0.5

Lab ID: 1603828-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.88	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:02	J
Lead	3.2	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:02	



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Reported : 11/10/2016

Client Sample ID IA-1-2.5

Lab ID: 1603828-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.6	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:03	
Lead	20	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:03	



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Reported : 11/10/2016

Client Sample ID IA-2-0.5

Lab ID: 1603828-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.80	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:04	J
Lead	4.0	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:04	



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Client Sample ID IA-2-2.5

Lab ID: 1603828-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.90	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:06	J
Lead	3.6	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:06	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID IA-3-0.5

Lab ID: 1603828-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:07	
Lead	2.6	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:07	



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Reported : 11/10/2016

Client Sample ID IA-3-2.5

Lab ID: 1603828-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.96	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:08	J
Lead	2.6	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:08	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AS-1-0.5

Lab ID: 1603828-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:09	
Lead	3.9	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:09	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AS-1-2.5

Lab ID: 1603828-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:13	
Lead	4.0	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:13	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AS-4-0.5

Lab ID: 1603828-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0214	11/05/2016	11/07/16 17:14	
Lead	4.4	1.0	0.11	1	B6K0214	11/05/2016	11/07/16 17:14	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AS-4-2.5

Lab ID: 1603828-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:18	
Lead	3.2	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:18	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AS-3-0.5

Lab ID: 1603828-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:22	
Lead	5.5	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:22	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AS-3-2.5

Lab ID: 1603828-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:23	
Lead	14	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:23	



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Reported : 11/10/2016

Client Sample ID AS-2-0.5

Lab ID: 1603828-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:27	
Lead	65	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:27	



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Client Sample ID AS-2-2.5

Lab ID: 1603828-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:28	
Lead	10	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:28	



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Client Sample ID IA-4-0.5

Lab ID: 1603828-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:29	
Lead	13	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:29	



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Client Sample ID IA-4-2.5

Lab ID: 1603828-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:30	
Lead	8.7	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:30	



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Client Sample ID P16-0.5

Lab ID: 1603828-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:31	
Lead	110	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:31	



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Client Sample ID P16-2.5

Lab ID: 1603828-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:32	
Lead	13	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:32	



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Client Sample ID P15-0.5

Lab ID: 1603828-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:33	
Lead	90	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:33	



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Client Sample ID P15-2.5

Lab ID: 1603828-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:34	
Lead	140	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:34	



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Client Sample ID Q16-0.5

Lab ID: 1603828-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.3	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:35	
Lead	36	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:35	



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Client Sample ID Q16-2.5

Lab ID: 1603828-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:37	
Lead	5.9	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:37	



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Client Sample ID IM-3-0.5

Lab ID: 1603828-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	25	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:40	
Lead	74	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:40	



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Client Sample ID IM-3-2.5

Lab ID: 1603828-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.9	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:41	
Lead	11	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:41	



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Client Sample ID IM-2-0.5

Lab ID: 1603828-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:43	
Lead	42	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:43	



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Client Sample ID IM-2-2.5

Lab ID: 1603828-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:44	
Lead	160	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:44	



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Client Sample ID IM-1-0.5

Lab ID: 1603828-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.3	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:45	
Lead	42	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:45	



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Client Sample ID IM-1-2.5

Lab ID: 1603828-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	1.0	0.70	1	B6K0215	11/05/2016	11/07/16 17:46	
Lead	35	1.0	0.11	1	B6K0215	11/05/2016	11/07/16 17:46	



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Client Sample ID IM-4-0.5

Lab ID: 1603828-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 17:49	
Lead	66	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 17:49	



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Client Sample ID IM-4-2.5

Lab ID: 1603828-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 17:56	
Lead	22	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 17:56	



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Client Sample ID IM-6-0.5

Lab ID: 1603828-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 17:57	
Lead	36	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 17:57	



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Client Sample ID IM-6-2.5

Lab ID: 1603828-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 17:58	
Lead	25	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 17:58	



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Client Sample ID IM-5-0.5

Lab ID: 1603828-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	29	2.0	1.4	2	B6K0216	11/05/2016	11/09/16 16:51	
Lead	54	2.0	0.22	2	B6K0216	11/05/2016	11/09/16 16:51	



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Client Sample ID IM-5-2.5

Lab ID: 1603828-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	22	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:00	
Lead	40	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:00	



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Client Sample ID R16-0.5

Lab ID: 1603828-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:02	
Lead	41	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:02	



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Client Sample ID R16-2.5

Lab ID: 1603828-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:03	
Lead	10	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:03	



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Client Sample ID R15-0.5

Lab ID: 1603828-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:04	
Lead	300	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:04	



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Client Sample ID R15-2.5

Lab ID: 1603828-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:07	
Lead	22	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:07	



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Client Sample ID Q15-0.5

Lab ID: 1603828-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:09	
Lead	110	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:09	



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Client Sample ID Q15-2.5

Lab ID: 1603828-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:10	
Lead	59	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:10	



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Client Sample ID CRA-1-0.5

Lab ID: 1603828-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:11	
Lead	26	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:11	



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Client Sample ID CRA-1-2.5

Lab ID: 1603828-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:12	
Lead	51	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:12	



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Client Sample ID CRB-3-0.5

Lab ID: 1603828-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:13	
Lead	14	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:13	



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Client Sample ID CRB-3-2.5

Lab ID: 1603828-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:14	
Lead	24	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:14	



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Client Sample ID CRB-2-0.5

Lab ID: 1603828-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:15	
Lead	3.4	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:15	



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Client Sample ID CRB-2-2.5

Lab ID: 1603828-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:16	
Lead	2.4	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:16	



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Client Sample ID CRB-1-0.5

Lab ID: 1603828-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0216	11/05/2016	11/07/16 18:18	
Lead	33	1.0	0.11	1	B6K0216	11/05/2016	11/07/16 18:18	



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Client Sample ID CRB-1-2.5

Lab ID: 1603828-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 09:56	
Lead	4.8	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 09:56	



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Client Sample ID CRB-4-0.5

Lab ID: 1603828-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:00	
Lead	3.5	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:00	



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Report To : John Nordenstam

Reported : 11/10/2016

Client Sample ID CRB-4-2.5

Lab ID: 1603828-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:01	
Lead	4.6	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:01	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID CRA-4-0.5

Lab ID: 1603828-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:05	
Lead	41	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:05	



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Client Sample ID CRA-4-2.5

Lab ID: 1603828-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:06	
Lead	11	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:06	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
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Client Sample ID EB-14-10/29/16

Lab ID: 1603828-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.050	0.033	5	B6K0252	11/07/2016	11/08/16 10:36	D5
Lead	ND	0.025	0.014	5	B6K0252	11/07/2016	11/08/16 10:36	D5

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
4,4'-DDE	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
4,4'-DDT	ND	0.05	0.004	1	B6K0167	11/03/2016	11/07/16 19:17	
Aldrin	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:17	
alpha-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:17	
alpha-Chlordane	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
beta-BHC	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Chlordane	ND	0.25	0.03	1	B6K0167	11/03/2016	11/07/16 19:17	
delta-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:17	
Dieldrin	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Endosulfan I	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Endosulfan II	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Endosulfan sulfate	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Endrin	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Endrin aldehyde	ND	0.05	0.006	1	B6K0167	11/03/2016	11/07/16 19:17	
Endrin ketone	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
gamma-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:17	
gamma-Chlordane	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Heptachlor	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Heptachlor epoxide	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:17	
Methoxychlor	ND	0.25	0.004	1	B6K0167	11/03/2016	11/07/16 19:17	
Toxaphene	ND	2.5	0.23	1	B6K0167	11/03/2016	11/07/16 19:17	
Surrogate: Decachlorobiphenyl	24.7 %		7 - 127		B6K0167	11/03/2016	11/07/16 19:17	
Surrogate: Tetrachloro-m-xylene	28.9 %		14 - 122		B6K0167	11/03/2016	11/07/16 19:17	



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Client Sample ID EB-14-10/29/16

Lab ID: 1603828-57

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1221	ND	1.0	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1232	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1242	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1248	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1254	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1260	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1262	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
Aroclor 1268	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 14:25	
<i>Surrogate: Decachlorobiphenyl</i>	<i>16.4 %</i>		<i>7 - 127</i>		B6K0167	11/03/2016	<i>11/07/16 14:25</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>33.5 %</i>		<i>14 - 122</i>		B6K0167	11/03/2016	<i>11/07/16 14:25</i>	



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Client Sample ID IA-3-0.5(Duplicate)

Lab ID: 1603828-58

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:07	
Lead	3.7	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:07	



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Client Sample ID AS-2-2.5(Duplicate)

Lab ID: 1603828-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:08	
Lead	7.3	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:08	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
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Client Sample ID IM-3-0.5(Duplicate)

Lab ID: 1603828-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	22	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:09	
Lead	61	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:09	



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Client Sample ID IM-6-2.5(Duplicate)

Lab ID: 1603828-61

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:11	
Lead	29	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:11	



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Client Sample ID CRA-1-0.5(Duplicate)

Lab ID: 1603828-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:12	
Lead	24	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:12	



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Client Sample ID CRB-4-2.5(Duplicate)
Lab ID: 1603828-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:13	
Lead	3.0	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:13	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0214 - EPA 3050B_S

Blank (B6K0214-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0214-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	43.9092	1.0	50.0000		87.8	80 - 120			
Lead	46.7172	1.0	50.0000		93.4	80 - 120			

Duplicate (B6K0214-DUP1)

Source: 1603827-43

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	6.68335	1.0		6.15816	NR		8.18	20	
Lead	10.0694	1.0		12.2308	NR		19.4	20	

Matrix Spike (B6K0214-MS1)

Source: 1603827-43

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	123.236	1.0	125.000	6.15816	93.7	59 - 103			
Lead	128.662	1.0	125.000	12.2308	93.1	34 - 129			

Matrix Spike Dup (B6K0214-MSD1)

Source: 1603827-43

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	114.626	1.0	124.378	6.15816	87.2	59 - 103	7.24	20	
Lead	117.274	1.0	124.378	12.2308	84.5	34 - 129	9.26	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
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Reported : 11/10/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0215 - EPA 3050B_S

Blank (B6K0215-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0215-BS1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	43.9781	1.0	50.0000		88.0	80 - 120			
Lead	47.0494	1.0	50.0000		94.1	80 - 120			

Duplicate (B6K0215-DUP1)

Source: 1603828-14

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	1.35676	1.0		1.51450	NR		11.0	20	
Lead	4.32566	1.0		3.17920	NR		30.6	20	R

Matrix Spike (B6K0215-MS1)

Source: 1603828-14

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	96.6360	1.0	125.628	1.51450	75.7	59 - 103			
Lead	97.0700	1.0	125.628	3.17920	74.7	34 - 129			

Matrix Spike Dup (B6K0215-MSD1)

Source: 1603828-14

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	92.7152	1.0	125.000	1.51450	73.0	59 - 103	4.14	20	
Lead	94.2308	1.0	125.000	3.17920	72.8	34 - 129	2.97	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0216 - EPA 3050B_S

Blank (B6K0216-BLK1)

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	ND	1.0			NR				
Lead	0.144177	1.0			NR				J

LCS (B6K0216-BS1)

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	46.3966	1.0	50.0000		92.8	80 - 120			
Lead	48.5742	1.0	50.0000		97.1	80 - 120			

Duplicate (B6K0216-DUP1)

Source: 1603828-33

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	18.5777	1.0		16.0008	NR		14.9	20	
Lead	75.5133	1.0		65.7864	NR		13.8	20	

Matrix Spike (B6K0216-MS1)

Source: 1603828-33

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	115.350	1.0	125.628	16.0008	79.1	59 - 103			
Lead	168.161	1.0	125.628	65.7864	81.5	34 - 129			

Matrix Spike Dup (B6K0216-MSD1)

Source: 1603828-33

Prepared: 11/5/2016 Analyzed: 11/7/2016

Arsenic	120.418	1.0	125.628	16.0008	83.1	59 - 103	4.30	20	
Lead	172.201	1.0	125.628	65.7864	84.7	34 - 129	2.37	20	



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Report To : John Nordenstam
Reported : 11/10/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0217 - EPA 3050B_S

Blank (B6K0217-BLK1)

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0217-BS1)

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	45.1946	1.0	50.0000		90.4	80 - 120			
Lead	47.6200	1.0	50.0000		95.2	80 - 120			

Duplicate (B6K0217-DUP1)

Source: 1603828-52

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	2.37159	1.0		2.38726	NR		0.659	20	
Lead	5.02208	1.0		4.79677	NR		4.59	20	

Matrix Spike (B6K0217-MS1)

Source: 1603828-52

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	103.852	1.0	125.000	2.38726	81.2	59 - 103			
Lead	104.326	1.0	125.000	4.79677	79.6	34 - 129			

Matrix Spike Dup (B6K0217-MSD1)

Source: 1603828-52

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	112.235	1.0	124.378	2.38726	88.3	59 - 103	7.76	20	
Lead	112.872	1.0	124.378	4.79677	86.9	34 - 129	7.87	20	



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Reported : 11/10/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0252 - EPA 3010A_W

Blank (B6K0252-BLK1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6K0252-BS1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	0.831160	0.010	1.00000		83.1	80 - 120			
Lead	0.941874	0.0050	1.00000		94.2	80 - 120			

Duplicate (B6K0252-DUP1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6K0252-MS1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.05852	0.010	2.50000	ND	82.3	74 - 123			
Lead	2.25178	0.0050	2.50000	ND	90.1	78 - 109			

Matrix Spike Dup (B6K0252-MSD1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.12893	0.010	2.50000	ND	85.2	74 - 123	3.36	20	
Lead	2.32413	0.0050	2.50000	ND	93.0	78 - 109	3.16	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Report To : John Nordenstam
Reported : 11/10/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

Blank (B6K0167-BLK1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Methoxychlor [2C]	ND	0.25		NR				
Toxaphene	ND	2.5		NR				
Toxaphene [2C]	ND	2.5		NR				
Surrogate: Decachlorobiphenyl	0.5125		0.500000	102	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.5278		0.500000	106	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5037		0.500000	101	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5557		0.500000	111	14 - 122			

LCS (B6K0167-BS1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.586325	0.05	0.500000	117	59 - 109			L3
4,4'-DDD [2C]	0.589790	0.05	0.500000	118	59 - 109			L3
4,4'-DDE	0.559345	0.05	0.500000	112	63 - 101			L3
4,4'-DDE [2C]	0.565800	0.05	0.500000	113	63 - 101			L3
4,4'-DDT	0.513565	0.05	0.500000	103	36 - 96			L3
4,4'-DDT [2C]	0.434225	0.05	0.500000	86.8	36 - 96			L3
Aldrin	0.540205	0.02	0.500000	108	64 - 96			L3
Aldrin [2C]	0.565045	0.02	0.500000	113	64 - 96			L3
alpha-BHC	0.551640	0.02	0.500000	110	63 - 92			L3
alpha-BHC [2C]	0.572725	0.02	0.500000	115	63 - 92			L3
alpha-Chlordane	0.546770	0.02	0.500000	109	63 - 101			L3
alpha-Chlordane [2C]	0.561780	0.02	0.500000	112	63 - 101			L3
beta-BHC	0.528540	0.02	0.500000	106	58 - 95			L3
beta-BHC [2C]	0.551630	0.02	0.500000	110	58 - 95			L3
delta-BHC	0.538760	0.02	0.500000	108	37 - 107			L3
delta-BHC [2C]	0.569230	0.02	0.500000	114	37 - 107			L3
Dieldrin	0.574460	0.05	0.500000	115	62 - 102			L3
Dieldrin [2C]	0.583430	0.05	0.500000	117	62 - 102			L3
Endosulfan I	0.533240	0.02	0.500000	107	61 - 97			L3
Endosulfan I [2C]	0.558850	0.02	0.500000	112	61 - 97			L3
Endosulfan II	0.563435	0.05	0.500000	113	61 - 103			L3
Endosulfan II [2C]	0.563345	0.05	0.500000	113	61 - 103			L3
Endosulfan sulfate	0.542155	0.05	0.500000	108	60 - 112			L3
Endosulfan Sulfate [2C]	0.549890	0.05	0.500000	110	60 - 112			L3
Endrin	0.600925	0.05	0.500000	120	62 - 103			L3
Endrin [2C]	0.606590	0.05	0.500000	121	62 - 103			L3
Endrin aldehyde	0.557760	0.05	0.500000	112	64 - 116			L3
Endrin aldehyde [2C]	0.560790	0.05	0.500000	112	64 - 116			L3
Endrin ketone	0.570840	0.05	0.500000	114	56 - 113			L3
Endrin ketone [2C]	0.552315	0.05	0.500000	110	56 - 113			L3
gamma-BHC	0.579625	0.02	0.500000	116	64 - 95			L3
gamma-BHC [2C]	0.586315	0.02	0.500000	117	64 - 95			L3



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS (B6K0167-BS1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

gamma-Chlordane	0.541570	0.02	0.500000		108	64 - 99			L3
gamma-Chlordane [2C]	0.557085	0.02	0.500000		111	64 - 99			L3
Heptachlor	0.577470	0.02	0.500000		115	64 - 93			L3
Heptachlor [2C]	0.559495	0.02	0.500000		112	64 - 93			L3
Heptachlor epoxide	0.545255	0.02	0.500000		109	65 - 98			L3
Heptachlor epoxide [2C]	0.556585	0.02	0.500000		111	65 - 98			L3
Methoxychlor	0.551315	0.25	0.500000		110	0 - 141			
Methoxychlor [2C]	0.453815	0.25	0.500000		90.8	0 - 141			
Surrogate: Decachlorobiphenyl	0.6053		0.500000		121	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.6312		0.500000		126	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5451		0.500000		109	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5905		0.500000		118	14 - 122			

LCS Dup (B6K0167-BS1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.574950	0.05	0.500000		115	59 - 109	1.96	20	L3
4,4'-DDD [2C]	0.576165	0.05	0.500000		115	59 - 109	2.34	20	L3
4,4'-DDE	0.549275	0.05	0.500000		110	63 - 101	1.82	20	L3
4,4'-DDE [2C]	0.551845	0.05	0.500000		110	63 - 101	2.50	20	L3
4,4'-DDT	0.505680	0.05	0.500000		101	36 - 96	1.55	20	L3
4,4'-DDT [2C]	0.417310	0.05	0.500000		83.5	36 - 96	3.97	20	
Aldrin	0.537410	0.02	0.500000		107	64 - 96	0.519	20	L3
Aldrin [2C]	0.552480	0.02	0.500000		110	64 - 96	2.25	20	L3
alpha-BHC	0.542470	0.02	0.500000		108	63 - 92	1.68	20	L3
alpha-BHC [2C]	0.561720	0.02	0.500000		112	63 - 92	1.94	20	L3
alpha-Chlordane	0.536085	0.02	0.500000		107	63 - 101	1.97	20	L3
alpha-Chlordane [2C]	0.547430	0.02	0.500000		109	63 - 101	2.59	20	L3
beta-BHC	0.519175	0.02	0.500000		104	58 - 95	1.79	20	L3
beta-BHC [2C]	0.538660	0.02	0.500000		108	58 - 95	2.38	20	L3
delta-BHC	0.528150	0.02	0.500000		106	37 - 107	1.99	20	
delta-BHC [2C]	0.556970	0.02	0.500000		111	37 - 107	2.18	20	L3
Dieldrin	0.564985	0.05	0.500000		113	62 - 102	1.66	20	L3
Dieldrin [2C]	0.570840	0.05	0.500000		114	62 - 102	2.18	20	L3
Endosulfan I	0.526015	0.02	0.500000		105	61 - 97	1.36	20	L3
Endosulfan I [2C]	0.548805	0.02	0.500000		110	61 - 97	1.81	20	L3
Endosulfan II	0.555550	0.05	0.500000		111	61 - 103	1.41	20	L3
Endosulfan II [2C]	0.552985	0.05	0.500000		111	61 - 103	1.86	20	L3
Endosulfan sulfate	0.537185	0.05	0.500000		107	60 - 112	0.921	20	
Endosulfan Sulfate [2C]	0.540225	0.05	0.500000		108	60 - 112	1.77	20	
Endrin	0.592450	0.05	0.500000		118	62 - 103	1.42	20	L3
Endrin [2C]	0.595640	0.05	0.500000		119	62 - 103	1.82	20	L3
Endrin aldehyde	0.555635	0.05	0.500000		111	64 - 116	0.382	20	



Certificate of Analysis

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6K0167-BS1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Endrin aldehyde [2C]	0.561430	0.05	0.500000		112	64 - 116	0.114	20	
Endrin ketone	0.564715	0.05	0.500000		113	56 - 113	1.08	20	
Endrin ketone [2C]	0.539740	0.05	0.500000		108	56 - 113	2.30	20	
gamma-BHC	0.568705	0.02	0.500000		114	64 - 95	1.90	20	L3
gamma-BHC [2C]	0.572955	0.02	0.500000		115	64 - 95	2.30	20	L3
gamma-Chlordane	0.531205	0.02	0.500000		106	64 - 99	1.93	20	L3
gamma-Chlordane [2C]	0.542850	0.02	0.500000		109	64 - 99	2.59	20	L3
Heptachlor	0.568775	0.02	0.500000		114	64 - 93	1.52	20	L3
Heptachlor [2C]	0.546635	0.02	0.500000		109	64 - 93	2.33	20	L3
Heptachlor epoxide	0.538770	0.02	0.500000		108	65 - 98	1.20	20	L3
Heptachlor epoxide [2C]	0.547200	0.02	0.500000		109	65 - 98	1.70	20	L3
Methoxychlor	0.542035	0.25	0.500000		108	0 - 141	1.70	20	
Methoxychlor [2C]	0.433555	0.25	0.500000		86.7	0 - 141	4.57	20	
Surrogate: Decachlorobiphenyl	0.5993		0.500000		120	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.6106		0.500000		122	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5357		0.500000		107	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5798		0.500000		116	14 - 122			



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

Surrogate: Decachlorobiphenyl	0.4041		0.500000		80.8	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.6008		0.500000		120	14 - 122			

LCS (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.06606	0.50	5.00000		101	68 - 96			S12
Aroclor 1260	5.06638	0.50	5.00000		101	64 - 106			

Surrogate: Decachlorobiphenyl	0.3855		0.500000		77.1	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5881		0.500000		118	14 - 122			

LCS Dup (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.10486	0.50	5.00000		102	68 - 96	0.763	20	S12
Aroclor 1260	5.15552	0.50	5.00000		103	64 - 106	1.74	20	

Surrogate: Decachlorobiphenyl	0.3729		0.500000		74.6	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5905		0.500000		118	14 - 122			



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
L3	Laboratory control sample outside in-house established limits but within method criteria.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 6

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (V/D)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP deg C:
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. 560

Company: TRC Solutions, Inc.		Address: 9685 Research Dr.		Tel: 949-341-7467	
City: Irvine		State: CA		Zip: 92618	
Attn: John Nordenstam		Email: jnordenstam@trcsolutions.com		Fax: 949-727-7311	
Company: TRC Solutions, Inc.		Address: 9685 Research Drive		City: Irvine	
State: CA		Zip: 92618		Tel: 949-341-7467	

Project Name: LAUSD Roosevelt HS		Quote No: E16131		Special Instructions/Comments:	
Project No: 265642.eac/TA02		PO #: 100816			
Sampler: A. Ramirez					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603828-01	IA-6-0.5		10-29-16	0730
2	-02	IA-6-2.5			0735
3	-03	IA-5-0.5			0740
4	-04	IA-5-2.5			0745
5	-05	IA-1-0.5			0801
6	-06	IA-1-2.5			0804
7	-07	IA-2-0.5			0832
8	-08	IA-2-2.5			0838
9	-09	IA-3-0.5			0845
10	-10	IA-3-2.5			0851

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)		SOIL / SEDIMENT / SLUDGE		5	1	4	Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB <input type="checkbox"/> Level IV <input type="checkbox"/> REMARKS Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-AC, 5-Zn ((Ac)2, 6-NaOH, 7-HNO3, 8-H2SO4, 9-AC, 10-AC, 11-AC, 12-AC, 13-AC, 14-AC, 15-AC, 16-AC, 17-AC, 18-AC, 19-AC, 20-AC, 21-AC, 22-AC, 23-AC, 24-AC, 25-AC, 26-AC, 27-AC, 28-AC, 29-AC, 30-AC, 31-AC, 32-AC, 33-AC, 34-AC, 35-AC, 36-AC, 37-AC, 38-AC, 39-AC, 40-AC, 41-AC, 42-AC, 43-AC, 44-AC, 45-AC, 46-AC, 47-AC, 48-AC, 49-AC, 50-AC, 51-AC, 52-AC, 53-AC, 54-AC, 55-AC, 56-AC, 57-AC, 58-AC, 59-AC, 60-AC, 61-AC, 62-AC, 63-AC, 64-AC, 65-AC, 66-AC, 67-AC, 68-AC, 69-AC, 70-AC, 71-AC, 72-AC, 73-AC, 74-AC, 75-AC, 76-AC, 77-AC, 78-AC, 79-AC, 80-AC, 81-AC, 82-AC, 83-AC, 84-AC, 85-AC, 86-AC, 87-AC, 88-AC, 89-AC, 90-AC, 91-AC, 92-AC, 93-AC, 94-AC, 95-AC, 96-AC, 97-AC, 98-AC, 99-AC, 100-AC, 101-AC, 102-AC, 103-AC, 104-AC, 105-AC, 106-AC, 107-AC, 108-AC, 109-AC, 110-AC, 111-AC, 112-AC, 113-AC, 114-AC, 115-AC, 116-AC, 117-AC, 118-AC, 119-AC, 120-AC, 121-AC, 122-AC, 123-AC, 124-AC, 125-AC, 126-AC, 127-AC, 128-AC, 129-AC, 130-AC, 131-AC, 132-AC, 133-AC, 134-AC, 135-AC, 136-AC, 137-AC, 138-AC, 139-AC, 140-AC, 141-AC, 142-AC, 143-AC, 144-AC, 145-AC, 146-AC, 147-AC, 148-AC, 149-AC, 150-AC, 151-AC, 152-AC, 153-AC, 154-AC, 155-AC, 156-AC, 157-AC, 158-AC, 159-AC, 160-AC, 161-AC, 162-AC, 163-AC, 164-AC, 165-AC, 166-AC, 167-AC, 168-AC, 169-AC, 170-AC, 171-AC, 172-AC, 173-AC, 174-AC, 175-AC, 176-AC, 177-AC, 178-AC, 179-AC, 180-AC, 181-AC, 182-AC, 183-AC, 184-AC, 185-AC, 186-AC, 187-AC, 188-AC, 189-AC, 190-AC, 191-AC, 192-AC, 193-AC, 194-AC, 195-AC, 196-AC, 197-AC, 198-AC, 199-AC, 200-AC, 201-AC, 202-AC, 203-AC, 204-AC, 205-AC, 206-AC, 207-AC, 208-AC, 209-AC, 210-AC, 211-AC, 212-AC, 213-AC, 214-AC, 215-AC, 216-AC, 217-AC, 218-AC, 219-AC, 220-AC, 221-AC, 222-AC, 223-AC, 224-AC, 225-AC, 226-AC, 227-AC, 228-AC, 229-AC, 230-AC, 231-AC, 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CHAIN OF CUSTODY RECORD

Page 2 of 6

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input checked="" type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (VDA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP deg. C: 5.6
<input type="checkbox"/> Other:		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. OTHER

Company: ARC Solutions, Inc.		Address: 9685 Research Dr.		Tel: 949-341-7467	
Attn: John Nordensky		City: Irvine		Fax: 949-727-7311	
Company: joerdensky@arcresolutions.com		State: CA		Zip: 92618	
Address: ARC Solutions, Inc.		SEND INVOICE TO:		Email:	
Address: 9685 Research Dr.		City: Irvine		State: CA	
City: Irvine		Zip: 92618		Same as SEND REPORT TO	

Project Name: LAUSD Rosevelt HS		Quote No: E161131		Special Instructions/Comments:	
Project No: 265642.0000/TA02		PO #: 100816			
Sampler: A. Ramirez					
ITEM	Lab No.	Sample ID / Location	Sample Description	Encircle or Write Requested Analysis	Encircle Sample Matrix
1	1603028-11	AS-1-0.5	AS-1-0.5	8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE
2	1603028-12	AS-1-2.5	AS-1-2.5	8081 (Organochlorine Pesticides)	WATER - DRINKING / GROUND
3	1603028-13	AS-4-0.5	AS-4-0.5	8082 (PCBs)	WATER - STORM / WASTE
4	1603028-14	AS-4-2.5	AS-4-2.5	8270 (Semi-volatiles)	WATER - DRINKING / GROUND
5	1603028-15	AS-3-0.5	AS-3-0.5	8015 (DRO)	SOILS / WIPE / FILTER
6	1603028-16	AS-3-2.5	AS-3-2.5	8015 (GRO)	SOIL / SEDIMENT / SLUDGE
7	1603028-17	AS-2-0.5	AS-2-0.5	8015 (GRO)	SOIL / SEDIMENT / SLUDGE
8	1603028-18	AS-2-2.5	AS-2-2.5	8015 (GRO)	SOIL / SEDIMENT / SLUDGE
9	1603028-19	IA-4-0.5	IA-4-0.5	8015 (GRO)	SOIL / SEDIMENT / SLUDGE
10	1603028-20	IA-4-2.5	IA-4-2.5	8015 (GRO)	SOIL / SEDIMENT / SLUDGE

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Signature: Allan Ramirez	Signature: Edward Rodriguez
Date: 10-29-16	Date: 10-29-16
Time: 15:50	Time: 15:50
Relinquished by: (Signature and Printed Name)	Relinquished by: (Signature and Printed Name)
Relinquished by: (Signature and Printed Name)	Relinquished by: (Signature and Printed Name)

For Laboratory Use Only
ATLCCOC Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Condition	<input type="checkbox"/> Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input checked="" type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (VOA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C: 5.6
<input type="checkbox"/> Other:		<input type="checkbox"/> 4. SEALED	

Instruction: Complete all shaded areas.

Company: TRC Solutions, Inc.		Address: 9685 Research Drive		Tel: 949-341-7467	
City: Irving		State: CA		Zip: 92618	
Fax: 949-227-7311		SEND INVOICE TO: <input checked="" type="checkbox"/> same as SEND REPORT TO			
Attn: John Nordstrom		Email: _____		State: _____	
Company: TRC Solutions, Inc.		Address: _____		City: _____	
State: CA		Zip: 92618		City: _____	

Project Name: LAUSD Rosevelt HS		Quote No: F16I131		Special Instructions/Comments:	
Project No.: 265642.0000/TA02		PO #: 100816			
Sampler: A. Ramirez					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1603828-21	P16-0.5		10-29-16	1102
2	-22	P16-2.5			1105
3	-23	P15-0.5			1109
4	-24	P15-2.5			1111
5	-25	Q16-0.5			1113
6	-26	Q16-2.5			1116
7	-27	IM-3-0.5			1126
8	-28	IM-3-2.5			1129
9	-29	IM-2-0.5			1132
10	-30	IM-2-2.5		✓	1135

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Allen Ramirez** Signature: *Allen Ramirez* Date: **10-29-16** Time: **1556**

Relinquished by: (Signature and Printed Name) **Allen Ramirez** Date: **10-29-16** Time: **1556**

Relinquished by: (Signature and Printed Name) **Allen Ramirez** Date: **10-29-16** Time: **1556**

Relinquished by: (Signature and Printed Name) **Allen Ramirez** Date: **10-29-16** Time: **1556**

CHAIN OF CUSTODY RECORD

Page 4 of 6

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC	<input type="checkbox"/> Y
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 6. PRESERVED	<input type="checkbox"/> N
<input type="checkbox"/> Other:		<input type="checkbox"/> 7. COOLER TEMP. deg. C:	<input type="checkbox"/> 5.6
<input type="checkbox"/> 4. SEALED		<input type="checkbox"/> 8. COOLER TEMP. deg. C:	<input type="checkbox"/> 5.6

Company: TRC Solution, Inc.		Address: 9885 Research Dr.		Tel: 949-341-7467	
Attn: John Nordenstern		City: Irving		State: CA	
Company: John Nordenstern		Email: john@trcsolutions.com		Zip: 92608	
Address: 9885 Research Drive		SEND INVOICE TO:		Fax: 949-727-7311	
City: Irving		State: CA		Zip: 92608	

Project Name:		Quote No:	Special Instructions/Comments:	
LAUSD Roosevelt HS		E16T131		
Project No.: 265642.0000 / TAO2		PO #:		
Sampler: A. Ramirez		100816		
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1603828-31	FM-1-0.5		1138
2	32	FM-1-2.5		1141
3	33	FM-4-0.5		1149
4	34	FM-4-2.5		1152
5	35	FM-6-0.5		1202
6	36	FM-6-2.5		1205
7	37	FM-5-0.5		1244
8	38	FM-5-2.5		1248
9	39	R16-0.5		1254
10	40	R16-2.5		1258

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature: Allen Ramirez		Date: 10-29-16	
Submitter Print Name: Allen Ramirez		Signature: Allen Ramirez		Date: 10-29-16	
Relinquished by: (Signature and Printed Name) Allen Ramirez		Relinquished by: (Signature and Printed Name) Edvard Rodriguez		Date: 10-29-16	
Relinquished by: (Signature and Printed Name)		Relinquished by: (Signature and Printed Name)		Date: 10-29-16	

CHAIN OF CUSTODY RECORD

Page 5 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCCOC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/>
<input type="checkbox"/> GSO		2. HEADSPACE (V/V)	<input type="checkbox"/>
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>
		5. # OF SAMPLES MATCH COC	<input type="checkbox"/>
		6. PRESERVED	<input type="checkbox"/>
		7. COOLER TEMP, deg C:	5.6

Company: TRC Solutions		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstem		City: rvine		Fax: 949-727-7311	
Company: TRC Solutions, Inc.		State: CA		Zip: 92618	
Address: 9685 Research Drive		Email: john@trcsolutions.com		SEND INVOICE TO: <input checked="" type="checkbox"/> Same as SEND REPORT TO	
City: rvine		Attn:		Email:	
State: CA		Company:			
Zip: 92618		Address:			
		City:			

Project Name: LAUSD Roosevelt HS		Quote No: E-16T 131		Special Instructions/Comments:	
Project No: 265642.0000 / TA02		PO #: 100816			
Sampler: A. Ramirez					
ITEM	Lab No.	Sample ID / Location	Sample Description	Encircle or Write Requested Analysis	Encircle Sample Matrix
1	1603828-41	R15-0.5	1300	X	X
2	42	R15-2.5	1303	X	X
3	43	Q15-0.5	1307	X	X
4	44	Q15-2.5	1312	X	X
5	45	CRA-1-0.5	1323	X	X
6	46	CRA-1-2.5	1333	X	X
7	47	CRB-3-0.5	1337	X	X
8	48	CRB-3-2.5	1342	X	X
9	49	CRB-2-0.5	1348	X	X
10	50	CRB-2-2.5	1356	X	X

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8260 / 624 (Volatiles)			<input type="checkbox"/> Routine
8015(GRO)			<input type="checkbox"/> Caltrans
8015(DRO)			<input type="checkbox"/> Legal
8270(Semi-volatiles)			<input type="checkbox"/> RWQCB
8081(Organochlorine Pesticides)			<input type="checkbox"/> Level IV
8082(PCBs)			
6010 / 7000 (Title 22 Metals)			
TO-15			
SOIL / SEDIMENT / SLUDGE			
SOLIDS / WIFE / FILTER			
WATER - DRINKING / GROUND			
WATER - STORM / WASTE			
AQUEOUS / LAVERED - OIL			

Material: 1-Tube, 2-VOA, 3-Filter, 4-Pint, 5-gal, 6-Tedlar, 7-Canister	#	Remarks
5-gal	5	Hold
2-VOA	5	Hold
3-Filter	5	Hold
4-Pint	5	Hold
1-Tube	5	Hold
2-VOA	5	Hold
3-Filter	5	Hold
4-Pint	5	Hold
1-Tube	5	Hold

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Signature: Allen Ramirez	Signature: Allen Ramirez
Date: 10-29-16	Date: 10-29-16
Time: 1550	Time: 1550
Relinquished by: Allen Ramirez	Relinquished by: Allen Ramirez
Date: 10-29-16	Date: 10-29-16
Time: 1550	Time: 1550
Relinquished by: Allen Ramirez	Relinquished by: Allen Ramirez
Date: 10-29-16	Date: 10-29-16
Time: 1550	Time: 1550

CHAIN OF CUSTODY RECORD

Page 6 of 6

Instruction: Complete all shaded areas.

Company: TFC Solutions, Inc.		Address: 9685 Research Dr.		Tel: 949-341-7467	
Attn: John Norderstam		City: Irvine		State: CA Zip: 92618	
Company: TFC Solutions, Inc.		Email: jnorderstam@tfcresolutions.com		Fax: 949-707-7311	
Address: 9685 Research Drive		City: Irvine		State: CA Zip: 92618	
City: Irvine		State: CA		Zip: 92618	

Project Name: LAUSD Roosevelt HS		Quote No: F16T131		Special Instructions/Comments:	
Project No: 265642, 0000/TA02		PO #: 100816			
Sampler: A. Ramirez					
ITEM	Lab No.	Sample ID / Location	Date	Time	Sample Description
1	1603928-51	CRB-1-0.5	10-29-16	1359	
2	1603928-52	CRB-1-2.5		1406	
3	1603928-53	CRB-4-0.5		1411	
4	1603928-54	CRB-4-2.5		1420	
5	1603928-55	CRA-4-0.5		1429	
6	1603928-56	CRA-4-2.5		1435	
7	1603928-57	EB-14-10/29/16		1446	
8					
9					
10					

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **Alan Ramirez** Date: **10-29-16** Time: **1550**

Submitter Print Name: **Alan Ramirez** Signature: **Alan Ramirez**

Relinquished by: (Signature and Printed Name) **Alan Ramirez** Date: **10-29-16** Time: **1550**

Relinquished by: (Signature and Printed Name) **Alan Ramirez** Date: **10-29-16** Time: **1550**

Relinquished by: (Signature and Printed Name) **Alan Ramirez** Date: **10-29-16** Time: **1550**

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Monday, October 31, 2016 8:09 AM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected October 29 and 30, 2016

Rachelle,

Please make the following additions/changes to the requested analyses for soil samples collected on October 29 and 30, 2016, at Roosevelt High School:

- **Analyze all soils samples collected at 2.5 feet for Arsenic and Lead** (the COC mistakenly requested that these samples be placed on Hold).
- **Please correct the sample names** for Samples CR-1-0.5, CR-1-2.5, CR-2-0.5, CR-2-2.5, CR-3-0.5, CR-3-2.5, CR-4-0.5, CR-4-2.5, CR-5-0.5, CR-5-2.5, CR-6-0.5, and CR-6-2.5 – the sample names should be CR1-1-0.5, CR1-1-2.5, CR1-2-0.5, CR1-2-2.5, CR1-3-0.5, CR1-3-2.5, CR1-4-0.5, CR1-4-2.5, CR1-5-0.5, CR1-5-2.5, CR1-6-0.5, and CR1-6-2.5 (the prefix for all samples should be CR1, not CR).
- **Do not perform PCB analysis (EPA Method 8082) on any of the discrete soil samples submitted for analysis.** Samples CR-1-0.5, CR-2-0.5, CR-3-0.5, CR-4-0.5, CR-5-0.5, CR-6-0.5, AS-1-0.5, AS-2-0.5, AS-3-0.5, and AS-4-0.5 were mistakenly identified on the COC as needing PCB analysis. Only composite soil samples will be analyzed for PCBs. A separate email request with instructions on compositing discrete soil samples for PCB and OCP analysis will be submitted later today.
- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 29, 2016 (100 soil samples)

Sample AA2573-2-0.5
Sample AA2685-4-2.5
Sample P14-0.5
Sample AA2543-2-2.5
Sample IA-3-0.5
Sample AS-2-2.5
Sample IM-3-0.5
Sample IM-6-2.5
Sample CRA-1-0.5
Sample CRB-4-2.5

Samples collected on October 30, 2016 (32 soil samples)

Sample CR1-1-0.5 (mistakenly labeled on COC as CR-1-0.5)
Sample AA2249-2-2.5
Sample AA2038-4-2.5

Please call me or John Nordenstam if you have any questions regarding this request.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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January 11, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603828
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a white background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P16-0.5	1603828-21	Soil	10/29/16 11:02	10/29/16 15:50
P15-0.5	1603828-23	Soil	10/29/16 11:09	10/29/16 15:50
P15-2.5	1603828-24	Soil	10/29/16 11:11	10/29/16 15:50
IM-2-2.5	1603828-30	Soil	10/29/16 11:35	10/29/16 15:50
R15-0.5	1603828-41	Soil	10/29/16 13:00	10/29/16 15:50
Q15-0.5	1603828-43	Soil	10/29/16 13:07	10/29/16 15:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/11/2017

Client Sample ID P16-0.5

Lab ID: 1603828-21

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.4	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:29	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID P15-0.5

Lab ID: 1603828-23

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.9	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:30	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID P15-2.5

Lab ID: 1603828-24

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.7	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:31	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID IM-2-2.5

Lab ID: 1603828-30

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:39	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID R15-0.5

Lab ID: 1603828-41

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.9	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:40	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID Q15-0.5

Lab ID: 1603828-43

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.0	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:41	



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0221 - STLC_S Extraction									
Blank (B7A0221-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0221-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0221-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.14591		2.00000		107	80 - 120			
Duplicate (B7A0221-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	9.66282	1.0		9.72033	NR		0.593	20	
Duplicate (B7A0221-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	18.7563	1.0		18.6238	NR		0.709	20	
Matrix Spike (B7A0221-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.4314		2.00000	9.72033	85.6	44 - 130			
Matrix Spike (B7A0221-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	19.9180		2.00000	18.6238	64.7	44 - 130			
Matrix Spike Dup (B7A0221-MSD1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.7140		2.00000	9.72033	99.7	44 - 130	2.44	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/11/2017

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L		
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	92	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	190	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	X	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---		
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---		
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---		
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---		
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---		
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---		
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---		
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---		
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---		
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---		
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---		
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---		
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B		TCLP mg/L		
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L			
Units: Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19	X		Perform laboratory analysis for STLC for lead	
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16	---	---		
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25	---	---		
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26	---	---		
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17	---	---		
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17	---	---		
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17	---	---		
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16	---	---		
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26	---	---		
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34	---	---		
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35	---	---		
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11	---	---		
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9	---	---		
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13	---	---		
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15	---	---		
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0	---	---		
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10	---	---		
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13	---	---		
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8	---	---		
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12	---	---		
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14	---	---		
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12	---	---		
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19	---	---		
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13	---	---		
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14	---	---		
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7	---	---		
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35	---	---		
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X	---	Perform laboratory analysis for STLC for lead	
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X	---	Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X	---	Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74	---	---		
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61	---	---		
IM-3c-0-5	11/23/2016	1604246	0.5	66	X	---	---	---	Perform laboratory analysis for STLC for arsenic	
IM-3c-2-5	11/23/2016	1604246	2.5	22	---	---	---	---		

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TtLC	STLC	TtLC	STLC	TtLC	STLC	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:				12	5.0	80	5.0			
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---	---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X	X	X	Perform laboratory analysis for STLC for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X	X	X	Perform laboratory analysis for STLC for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X	X	X	Perform laboratory analysis for STLC for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X	X	X	Perform laboratory analysis for STLC for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X	X	X	Perform laboratory analysis for STLC for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X	X	X	Perform laboratory analysis for STLC for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X	X	X	Perform laboratory analysis for STLC for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
			Units:	mg/kg	mg/L	mg/kg	mg/L	mg/L		
			Screening Level:	12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District
ID = Identification
bgs = below ground surface
EPA = Environmental Protection Agency
--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 25, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603828
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a white background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/25/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P16-0.5	1603828-21	Soil	10/29/16 11:02	10/29/16 15:50
P15-2.5	1603828-24	Soil	10/29/16 11:11	10/29/16 15:50
IM-2-2.5	1603828-30	Soil	10/29/16 11:35	10/29/16 15:50
Q15-0.5	1603828-43	Soil	10/29/16 13:07	10/29/16 15:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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TRC
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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID P16-0.5

Lab ID: 1603828-21

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.028	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 10:43	D1, J



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID P15-2.5

Lab ID: 1603828-24

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 10:45	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID IM-2-2.5

Lab ID: 1603828-30

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.020	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 10:48	D1, J



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID Q15-0.5

Lab ID: 1603828-43

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 10:50	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0627 - EPA 3010A_S									
Blank (B7A0627-BLK1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	ND	0.050			NR				
LCS (B7A0627-BS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	1.03480	0.050	1.00000		103	80 - 120			
Duplicate (B7A0627-DUP1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	0.542394	0.25		0.468285	NR		14.7	20	
Matrix Spike (B7A0627-MS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	3.01524	0.25	2.50000	0.468285	102	78 - 109			
Matrix Spike Dup (B7A0627-MSD1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	3.00022	0.25	2.50000	0.468285	101	78 - 109	0.500	20	



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/25/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 18, 2017 2:21 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Rachelle – we need to conduct additional analyses for TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 44 samples to be analyzed for TCLP for lead. Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
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[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments	
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B					
				TTLC	STLC	TTLC	STLC	TTLC	TCLP		
				mg/L	mg/L	mg/kg	mg/L	mg/L	mg/L		
			Units:								
			Screening Level:	12	5.0	80	5.0				
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	92	5.5	X		Perform laboratory analysis for TCLP for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	86	5.8	X		Perform laboratory analysis for TCLP for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	110	4.7				
B-6b-2.5	11/23/2016	1604246	2.5	---	---	280	16	X		Perform laboratory analysis for TCLP for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	85	2.6				
B-6c-3.5	11/23/2016	1604246	3.5	---	---	190	3.9				
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3				
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	3.3				
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	4.1				
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	0.029 J		Perform laboratory analysis for TCLP for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.3	X			
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---				
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	3.6				
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---				
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---				
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---				
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---				
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---				
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---				
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7				
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---				
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---				
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---				
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---				
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	0.095 J			
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	3.0				
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7				
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	6.6	X		Perform laboratory analysis for TCLP for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5				
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	ND<0.25			
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	74	X		Perform laboratory analysis for TCLP for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	10	X		Perform laboratory analysis for TCLP for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	13	X		Perform laboratory analysis for TCLP for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	22	X		Perform laboratory analysis for TCLP for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	0.41			
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	ND<1.0				
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	17	X		Perform laboratory analysis for TCLP for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	0.59			
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	9.7	X		Perform laboratory analysis for TCLP for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	6.0	X		Perform laboratory analysis for TCLP for lead	

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TTL	STLC	TTL	STLC	TTL	STLC	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
				Units:						
				Screening Level:						
AUD-6-0.25	11/21/2016	1604222	0.25	12	---	5.0	80	---	---	Perform laboratory analysis for TCLP for lead
AUD-6-0.5	10/16/2016	1603634	0.5	5.2	---	---	160	7.8	X	
AUD-6b-0.5	11/21/2016	1604222	0.5	--	---	---	670	26	1.5	
AUD-6c-0.25	11/21/2016	1604222	0.25	--	---	---	160	13	X	Perform laboratory analysis for TCLP for lead
AUD-6c-0.25 DUP	11/21/2016	1604222	0.25	--	---	---	110	3.9	---	
AA1917-4-2.5	10/29/2016	1603827	2.5	2.5	---	---	82	6.2	X	Perform laboratory analysis for TCLP for lead
AA2684-2-0.5	10/29/2016	1603827	0.5	18	---	---	220	0.52 J	---	
AA2684-2-2.5	10/29/2016	1603827	2.5	20	---	---	19	---	---	
AA2684-3-2.5	10/29/2016	1603827	2.5	33	---	---	16	---	---	
AA2684-6-0.5	12/21/2016	1604849	0.5	27	---	---	25	---	---	
AA2684-6-0.5 DUP	12/21/2016	1604849	0.5	28	---	---	---	---	---	
AA2684-6-2.5	12/21/2016	1604849	2.5	28	---	---	---	---	---	
AA2684-6-3.5	12/21/2016	1604849	3.5	23	---	---	---	---	---	
AA2543-1-2.5	10/29/2016	1603827	2.5	34	---	---	26	---	---	
AA2543-2-0.5	10/29/2016	1603827	0.5	23	---	---	17	---	---	
AA2543-2-2.5	10/29/2016	1603827	2.5	25	---	---	17	---	---	
AA2543-2-2.5 DUP	10/29/2016	1603827	2.5	24	---	---	17	---	---	
AA2543-5-0.5	10/29/2016	1603827	0.5	25	---	---	16	---	---	
AA2543-5-2.5	10/29/2016	1603827	2.5	34	---	---	26	---	---	
AA2543-6-0.5	10/29/2016	1603827	0.5	39	---	---	34	---	---	
AA2543-6-2.5	10/29/2016	1603827	2.5	19	---	---	35	---	---	
AA2038-1-0.5	10/30/2016	1603843	0.5	23	---	---	11	---	---	
AA2038-1-2.5	10/30/2016	1603843	2.5	23	---	---	7.9	---	---	
AA2038-2-0.5	10/30/2016	1603843	0.5	14	---	---	13	---	---	
AA2038-2-2.5	10/30/2016	1603843	2.5	31	---	---	15	---	---	
AA2038-3-0.5	10/30/2016	1603843	0.5	13	---	---	8.0	---	---	
AA2038-3-2.5	10/30/2016	1603843	2.5	27	---	---	10	---	---	
AA2038-4-0.5	10/30/2016	1603843	0.5	16	---	---	13	---	---	
AA2038-4-2.5	10/30/2016	1603843	2.5	20	---	---	9.8	---	---	
AA2038-4-2.5 DUP	10/30/2016	1603843	2.5	21	---	---	12	---	---	
AA2038-7-0.5	12/21/2016	1604849	0.5	12	---	---	---	---	---	
AA2249-1-0.5	10/30/2016	1603843	0.5	24	---	---	14	---	---	
AA2249-1-2.5	10/30/2016	1603843	2.5	33	---	---	12	---	---	
AA2249-2-0.5	10/30/2016	1603843	0.5	22	---	---	19	---	---	
AA2249-2-2.5	10/30/2016	1603843	2.5	35	---	---	13	---	---	
AA2249-2-2.5 DUP	10/30/2016	1603843	2.5	31	---	---	14	---	---	
FS-2-0.5	10/23/2016	1603435	0.5	20	---	---	6.7	---	---	
IM-1-2.5	10/30/2016	1603842	2.5	20	---	---	35	---	---	
IM-2-2.5	10/30/2016	1603842	2.5	4.6	---	---	160	13	X	Perform laboratory analysis for TCLP for lead
IM-2b-0.5	11/23/2016	1604246	0.5	17	---	---	100	6.8	X	Perform laboratory analysis for TCLP for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLG	STLC	TTLG	STLC	TTLG	STLC	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Units:				Screening Level:						
IM-2b-0.5 DUP	11/23/2016	1604246	0.5	12	5.0	80	5.0			Perform laboratory analysis for TCLP for lead
IM-3-0.5	10/30/2016	1603842	0.5	17	---	150	6.3		X	
IM-3-0.5 DUP	10/30/2016	1603842	0.5	25	---	74	---		---	
IM-3c-0.5	10/30/2016	1603842	0.5	22	---	61	---		---	
IM-3c-2.5	11/23/2016	1604246	0.5	66	4.1	---	---		---	
IM-3c-3.5	11/23/2016	1604246	2.5	22	---	---	---		---	
IM-4-0.5	11/23/2016	1604246	3.5	16	---	---	---		---	
IM-4-2.5	10/30/2016	1603842	0.5	16	---	66	---		---	
IM-5-0.5	10/30/2016	1603842	2.5	20	---	22	---		---	
IM-5-2.5	10/30/2016	1603842	0.5	29	---	54	---		---	
IM-5d-0.5	10/30/2016	1603842	2.5	22	---	40	---		---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---		---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---		---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	10	X		Perform laboratory analysis for TCLP for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	5.4	X		Perform laboratory analysis for TCLP for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	4.5		---	
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	140	X		Perform laboratory analysis for TCLP for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	5.6	X		Perform laboratory analysis for TCLP for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---		---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	6.3	X		Perform laboratory analysis for TCLP for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	26	X		Perform laboratory analysis for TCLP for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	32	X		Perform laboratory analysis for TCLP for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	22	X		Perform laboratory analysis for TCLP for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	11	X		Perform laboratory analysis for TCLP for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	25	X		Perform laboratory analysis for TCLP for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---		---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	9.0	X		Perform laboratory analysis for TCLP for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	12	X		Perform laboratory analysis for TCLP for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	25	X		Perform laboratory analysis for TCLP for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	14	X		Perform laboratory analysis for TCLP for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	8.5	X		Perform laboratory analysis for TCLP for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	4.9		---	
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	9.7	X		Perform laboratory analysis for TCLP for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	2.2		---	
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	8.5	X		Perform laboratory analysis for TCLP for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	4.8		---	
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	7.3	X		Perform laboratory analysis for TCLP for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	11	X		Perform laboratory analysis for TCLP for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	7.4	X		Perform laboratory analysis for TCLP for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	3.6		---	

Table 2 DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California										
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B		TCLP		
				TTLC	STLC	TTLC	STLC		TTLC	STLC
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Units:				12	5.0	80	5.0			
Screening Level:										
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	6.0	X		Perform laboratory analysis for TCLP for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	190	X		Perform laboratory analysis for TCLP for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	120	X		Perform laboratory analysis for TCLP for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	6.5	X		Perform laboratory analysis for TCLP for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	0.78 J			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	1.9			
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	8.3	X		Perform laboratory analysis for TCLP for lead
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	2.2			
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	17	X		Perform laboratory analysis for TCLP for lead
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	1.3			
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	3.4			
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---			
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---			
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	1.5			
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---			
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---			
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---			
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---			
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---			
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---			

Notes:
Table summarizes arsenic and lead laboratory analytical reports for soil samples.
Samples with detectable concentrations presented in **bold font**.
Arsenic screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRR) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).
LAUSD = Los Angeles Unified School District
ID = Identification
bgs = below ground surface
EPA = Environmental Protection Agency
--- = not analyzed

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
μg/L = micrograms per liter
DUP = Duplicate of preceding sample
J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
(2) = 1.1J Aroclor 1260

Notes:
 Table summarizes arsenic and lead laboratory analytical reports for soil samples.
 Samples with detectable concentrations presented in **bold** font.
 Arsenic screening level based on California background level.

TtLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HARRA) Note Number 3, Table 1 (DTSC, 2015).
 OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HARRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).

LAUSD = Los Angeles Unified School District
 ID = Identification
 bgs = below ground surface
 EPA = Environmental Protection Agency
 --- = not analyzed
 mg/kg = milligrams per kilogram
 mg/L = milligrams per liter
 µg/L = micrograms per liter
 DUP = Duplicate of preceding sample
 Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
 Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
 (2) = 11J Aroclor 1260





November 10, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1603842
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 30, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", followed by the letters "Ar" in a smaller, less legible script.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CR1-3-0.5	1603842-01	Soil	10/30/16 7:39	10/30/16 11:51
CR1-3-2.5	1603842-02	Soil	10/30/16 7:44	10/30/16 11:51
CRA-3-0.5	1603842-03	Soil	10/30/16 7:58	10/30/16 11:51
CRA-3-2.5	1603842-04	Soil	10/30/16 8:04	10/30/16 11:51
CRA-2-0.5	1603842-05	Soil	10/30/16 8:12	10/30/16 11:51
CRA-2-2.5	1603842-06	Soil	10/30/16 8:16	10/30/16 11:51
CR1-2-0.5	1603842-07	Soil	10/30/16 8:40	10/30/16 11:51
CR1-2-2.5	1603842-08	Soil	10/30/16 8:43	10/30/16 11:51
CR1-1-0.5	1603842-09	Soil	10/30/16 8:50	10/30/16 11:51
CR1-1-2.5	1603842-10	Soil	10/30/16 8:54	10/30/16 11:51
CR1-5-0.5	1603842-11	Soil	10/30/16 8:58	10/30/16 11:51
CR1-5-2.5	1603842-12	Soil	10/30/16 9:02	10/30/16 11:51
CR1-4-0.5	1603842-13	Soil	10/30/16 9:09	10/30/16 11:51
CR1-4-2.5	1603842-14	Soil	10/30/16 9:12	10/30/16 11:51
EB-16-10/30/16	1603842-15	Water	10/30/16 10:45	10/30/16 11:51
CR1-1-0.5 (Duplicate)	1603842-16	Soil	10/30/16 8:50	10/30/16 11:51

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID CR1-3-0.5

Lab ID: 1603842-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:14	
Lead	9.0	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:14	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID CR1-3-2.5

Lab ID: 1603842-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K0217	11/05/2016	11/08/16 10:15	
Lead	5.5	1.0	0.11	1	B6K0217	11/05/2016	11/08/16 10:15	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID CRA-3-0.5

Lab ID: 1603842-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	0.70	1	B6K0217	11/05/2016	11/09/16 16:54	
Lead	55	1.0	0.11	1	B6K0217	11/05/2016	11/09/16 16:54	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID CRA-3-2.5

Lab ID: 1603842-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	0.70	1	B6K0217	11/05/2016	11/09/16 16:58	
Lead	6.0	1.0	0.11	1	B6K0217	11/05/2016	11/09/16 16:58	



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Reported : 11/10/2016

Client Sample ID CRA-2-0.5

Lab ID: 1603842-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.6	1.0	0.70	1	B6K0217	11/05/2016	11/09/16 17:01	
Lead	110	1.0	0.11	1	B6K0217	11/05/2016	11/09/16 17:01	



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Report To : John Nordenstam

Reported : 11/10/2016

Client Sample ID CRA-2-2.5

Lab ID: 1603842-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K0217	11/05/2016	11/09/16 17:15	
Lead	140	1.0	0.11	1	B6K0217	11/05/2016	11/09/16 17:15	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID CR1-2-0.5

Lab ID: 1603842-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6K0217	11/05/2016	11/09/16 17:18	
Lead	100	1.0	0.11	1	B6K0217	11/05/2016	11/09/16 17:18	



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Reported : 11/10/2016

Client Sample ID CR1-2-2.5

Lab ID: 1603842-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	2.0	1.4	2	B6K0217	11/05/2016	11/10/16 12:29	D5
Lead	37	2.0	0.22	2	B6K0217	11/05/2016	11/10/16 12:29	D5



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Reported : 11/10/2016

Client Sample ID CR1-1-0.5

Lab ID: 1603842-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B6K0218	11/05/2016	11/09/16 17:32	
Lead	35	1.0	0.11	1	B6K0218	11/05/2016	11/09/16 17:32	



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Client Sample ID CR1-1-2.5

Lab ID: 1603842-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 12:32	
Lead	14	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 12:32	



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Client Sample ID CR1-5-0.5

Lab ID: 1603842-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	23	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 12:36	
Lead	310	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 12:36	



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Client Sample ID CR1-5-2.5

Lab ID: 1603842-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	15	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 12:46	
Lead	18	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 12:46	



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Client Sample ID CR1-4-0.5

Lab ID: 1603842-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 12:49	
Lead	130	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 12:49	



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Client Sample ID CR1-4-2.5

Lab ID: 1603842-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 12:52	
Lead	14	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 12:52	



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Client Sample ID EB-16-10/30/16

Lab ID: 1603842-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K0252	11/07/2016	11/08/16 09:52	
Lead	ND	0.0050	0.0028	1	B6K0252	11/07/2016	11/08/16 09:52	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.06	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
4,4'-DDE	ND	0.06	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
4,4'-DDT	ND	0.06	0.004	1	B6K0167	11/03/2016	11/07/16 19:27	
Aldrin	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
alpha-BHC	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
alpha-Chlordane	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
beta-BHC	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Chlordane	ND	0.28	0.03	1	B6K0167	11/03/2016	11/07/16 19:27	
delta-BHC	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Dieldrin	ND	0.06	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Endosulfan I	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Endosulfan II	ND	0.06	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Endosulfan sulfate	ND	0.06	0.006	1	B6K0167	11/03/2016	11/07/16 19:27	
Endrin	ND	0.06	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Endrin aldehyde	ND	0.06	0.006	1	B6K0167	11/03/2016	11/07/16 19:27	
Endrin ketone	ND	0.06	0.006	1	B6K0167	11/03/2016	11/07/16 19:27	
gamma-BHC	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
gamma-Chlordane	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Heptachlor	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Heptachlor epoxide	ND	0.03	0.005	1	B6K0167	11/03/2016	11/07/16 19:27	
Methoxychlor	ND	0.28	0.004	1	B6K0167	11/03/2016	11/07/16 19:27	
Toxaphene	ND	2.8	0.25	1	B6K0167	11/03/2016	11/07/16 19:27	
Surrogate: Decachlorobiphenyl	24.2 %		7 - 127		B6K0167	11/03/2016	11/07/16 19:27	
Surrogate: Tetrachloro-m-xylene	59.4 %		14 - 122		B6K0167	11/03/2016	11/07/16 19:27	



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Reported : 11/10/2016

Client Sample ID EB-16-10/30/16

Lab ID: 1603842-15

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1221	ND	1.1	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1232	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1242	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1248	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1254	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1260	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1262	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
Aroclor 1268	ND	0.56	0.06	1	B6K0167	11/03/2016	11/07/16 14:43	
<i>Surrogate: Decachlorobiphenyl</i>	22.5 %		7 - 127		B6K0167	11/03/2016	11/07/16 14:43	
<i>Surrogate: Tetrachloro-m-xylene</i>	88.7 %		14 - 122		B6K0167	11/03/2016	11/07/16 14:43	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
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Reported : 11/10/2016

Client Sample ID CR1-1-0.5 (Duplicate)

Lab ID: 1603842-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 12:56	
Lead	44	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 12:56	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0217 - EPA 3050B_S

Blank (B6K0217-BLK1)

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K0217-BS1)

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	45.1946	1.0	50.0000		90.4	80 - 120			
Lead	47.6200	1.0	50.0000		95.2	80 - 120			

Duplicate (B6K0217-DUP1)

Source: 1603828-52

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	2.37159	1.0		2.38726	NR		0.659	20	
Lead	5.02208	1.0		4.79677	NR		4.59	20	

Matrix Spike (B6K0217-MS1)

Source: 1603828-52

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	103.852	1.0	125.000	2.38726	81.2	59 - 103			
Lead	104.326	1.0	125.000	4.79677	79.6	34 - 129			

Matrix Spike Dup (B6K0217-MSD1)

Source: 1603828-52

Prepared: 11/5/2016 Analyzed: 11/8/2016

Arsenic	112.235	1.0	124.378	2.38726	88.3	59 - 103	7.76	20	
Lead	112.872	1.0	124.378	4.79677	86.9	34 - 129	7.87	20	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
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Reported : 11/10/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0218 - EPA 3050B_S

Blank (B6K0218-BLK1)

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	ND	1.0			NR				
Lead	0.290632	1.0			NR				J

LCS (B6K0218-BS1)

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	41.3574	1.0	50.0000		82.7	80 - 120			
Lead	45.3667	1.0	50.0000		90.7	80 - 120			

Duplicate (B6K0218-DUP1)

Source: 1603842-09

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	3.82156	1.0		3.76238	NR		1.56	20	
Lead	46.8046	1.0		34.7847	NR		29.5	20	R

Matrix Spike (B6K0218-MS1)

Source: 1603842-09

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	93.4349	1.0	125.000	3.76238	71.7	59 - 103			
Lead	129.196	1.0	125.000	34.7847	75.5	34 - 129			

Matrix Spike Dup (B6K0218-MSD1)

Source: 1603842-09

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	91.4146	1.0	125.000	3.76238	70.1	59 - 103	2.19	20	
Lead	145.840	1.0	125.000	34.7847	88.8	34 - 129	12.1	20	



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Reported : 11/10/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0252 - EPA 3010A_W

Blank (B6K0252-BLK1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010		NR					
Lead	ND	0.0050		NR					

LCS (B6K0252-BS1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	0.831160	0.010	1.00000	83.1	80 - 120				
Lead	0.941874	0.0050	1.00000	94.2	80 - 120				

Duplicate (B6K0252-DUP1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6K0252-MS1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.05852	0.010	2.50000	ND	82.3	74 - 123			
Lead	2.25178	0.0050	2.50000	ND	90.1	78 - 109			

Matrix Spike Dup (B6K0252-MSD1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.12893	0.010	2.50000	ND	85.2	74 - 123	3.36	20	
Lead	2.32413	0.0050	2.50000	ND	93.0	78 - 109	3.16	20	



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Reported : 11/10/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Reported : 11/10/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

Blank (B6K0167-BLK1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Methoxychlor [2C]	ND	0.25		NR				
Toxaphene	ND	2.5		NR				
Toxaphene [2C]	ND	2.5		NR				
Surrogate: Decachlorobiphenyl	0.5125		0.500000	102	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.5278		0.500000	106	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5037		0.500000	101	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5557		0.500000	111	14 - 122			

LCS (B6K0167-BS1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.586325	0.05	0.500000	117	59 - 109			L3
4,4'-DDD [2C]	0.589790	0.05	0.500000	118	59 - 109			L3
4,4'-DDE	0.559345	0.05	0.500000	112	63 - 101			L3
4,4'-DDE [2C]	0.565800	0.05	0.500000	113	63 - 101			L3
4,4'-DDT	0.513565	0.05	0.500000	103	36 - 96			L3
4,4'-DDT [2C]	0.434225	0.05	0.500000	86.8	36 - 96			L3
Aldrin	0.540205	0.02	0.500000	108	64 - 96			L3
Aldrin [2C]	0.565045	0.02	0.500000	113	64 - 96			L3
alpha-BHC	0.551640	0.02	0.500000	110	63 - 92			L3
alpha-BHC [2C]	0.572725	0.02	0.500000	115	63 - 92			L3
alpha-Chlordane	0.546770	0.02	0.500000	109	63 - 101			L3
alpha-Chlordane [2C]	0.561780	0.02	0.500000	112	63 - 101			L3
beta-BHC	0.528540	0.02	0.500000	106	58 - 95			L3
beta-BHC [2C]	0.551630	0.02	0.500000	110	58 - 95			L3
delta-BHC	0.538760	0.02	0.500000	108	37 - 107			L3
delta-BHC [2C]	0.569230	0.02	0.500000	114	37 - 107			L3
Dieldrin	0.574460	0.05	0.500000	115	62 - 102			L3
Dieldrin [2C]	0.583430	0.05	0.500000	117	62 - 102			L3
Endosulfan I	0.533240	0.02	0.500000	107	61 - 97			L3
Endosulfan I [2C]	0.558850	0.02	0.500000	112	61 - 97			L3
Endosulfan II	0.563435	0.05	0.500000	113	61 - 103			L3
Endosulfan II [2C]	0.563345	0.05	0.500000	113	61 - 103			L3
Endosulfan sulfate	0.542155	0.05	0.500000	108	60 - 112			L3
Endosulfan Sulfate [2C]	0.549890	0.05	0.500000	110	60 - 112			L3
Endrin	0.600925	0.05	0.500000	120	62 - 103			L3
Endrin [2C]	0.606590	0.05	0.500000	121	62 - 103			L3
Endrin aldehyde	0.557760	0.05	0.500000	112	64 - 116			L3
Endrin aldehyde [2C]	0.560790	0.05	0.500000	112	64 - 116			L3
Endrin ketone	0.570840	0.05	0.500000	114	56 - 113			L3
Endrin ketone [2C]	0.552315	0.05	0.500000	110	56 - 113			L3
gamma-BHC	0.579625	0.02	0.500000	116	64 - 95			L3
gamma-BHC [2C]	0.586315	0.02	0.500000	117	64 - 95			L3



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Reported : 11/10/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS (B6K0167-BS1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

gamma-Chlordane	0.541570	0.02	0.500000		108	64 - 99			L3
gamma-Chlordane [2C]	0.557085	0.02	0.500000		111	64 - 99			L3
Heptachlor	0.577470	0.02	0.500000		115	64 - 93			L3
Heptachlor [2C]	0.559495	0.02	0.500000		112	64 - 93			L3
Heptachlor epoxide	0.545255	0.02	0.500000		109	65 - 98			L3
Heptachlor epoxide [2C]	0.556585	0.02	0.500000		111	65 - 98			L3
Methoxychlor	0.551315	0.25	0.500000		110	0 - 141			
Methoxychlor [2C]	0.453815	0.25	0.500000		90.8	0 - 141			
Surrogate: Decachlorobiphenyl	0.6053		0.500000		121	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.6312		0.500000		126	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5451		0.500000		109	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5905		0.500000		118	14 - 122			

LCS Dup (B6K0167-BS1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.574950	0.05	0.500000		115	59 - 109	1.96	20	L3
4,4'-DDD [2C]	0.576165	0.05	0.500000		115	59 - 109	2.34	20	L3
4,4'-DDE	0.549275	0.05	0.500000		110	63 - 101	1.82	20	L3
4,4'-DDE [2C]	0.551845	0.05	0.500000		110	63 - 101	2.50	20	L3
4,4'-DDT	0.505680	0.05	0.500000		101	36 - 96	1.55	20	L3
4,4'-DDT [2C]	0.417310	0.05	0.500000		83.5	36 - 96	3.97	20	
Aldrin	0.537410	0.02	0.500000		107	64 - 96	0.519	20	L3
Aldrin [2C]	0.552480	0.02	0.500000		110	64 - 96	2.25	20	L3
alpha-BHC	0.542470	0.02	0.500000		108	63 - 92	1.68	20	L3
alpha-BHC [2C]	0.561720	0.02	0.500000		112	63 - 92	1.94	20	L3
alpha-Chlordane	0.536085	0.02	0.500000		107	63 - 101	1.97	20	L3
alpha-Chlordane [2C]	0.547430	0.02	0.500000		109	63 - 101	2.59	20	L3
beta-BHC	0.519175	0.02	0.500000		104	58 - 95	1.79	20	L3
beta-BHC [2C]	0.538660	0.02	0.500000		108	58 - 95	2.38	20	L3
delta-BHC	0.528150	0.02	0.500000		106	37 - 107	1.99	20	
delta-BHC [2C]	0.556970	0.02	0.500000		111	37 - 107	2.18	20	L3
Dieldrin	0.564985	0.05	0.500000		113	62 - 102	1.66	20	L3
Dieldrin [2C]	0.570840	0.05	0.500000		114	62 - 102	2.18	20	L3
Endosulfan I	0.526015	0.02	0.500000		105	61 - 97	1.36	20	L3
Endosulfan I [2C]	0.548805	0.02	0.500000		110	61 - 97	1.81	20	L3
Endosulfan II	0.555550	0.05	0.500000		111	61 - 103	1.41	20	L3
Endosulfan II [2C]	0.552985	0.05	0.500000		111	61 - 103	1.86	20	L3
Endosulfan sulfate	0.537185	0.05	0.500000		107	60 - 112	0.921	20	
Endosulfan Sulfate [2C]	0.540225	0.05	0.500000		108	60 - 112	1.77	20	
Endrin	0.592450	0.05	0.500000		118	62 - 103	1.42	20	L3
Endrin [2C]	0.595640	0.05	0.500000		119	62 - 103	1.82	20	L3
Endrin aldehyde	0.555635	0.05	0.500000		111	64 - 116	0.382	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6K0167-BSD1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Endrin aldehyde [2C]	0.561430	0.05	0.500000		112	64 - 116	0.114	20	
Endrin ketone	0.564715	0.05	0.500000		113	56 - 113	1.08	20	
Endrin ketone [2C]	0.539740	0.05	0.500000		108	56 - 113	2.30	20	
gamma-BHC	0.568705	0.02	0.500000		114	64 - 95	1.90	20	L3
gamma-BHC [2C]	0.572955	0.02	0.500000		115	64 - 95	2.30	20	L3
gamma-Chlordane	0.531205	0.02	0.500000		106	64 - 99	1.93	20	L3
gamma-Chlordane [2C]	0.542850	0.02	0.500000		109	64 - 99	2.59	20	L3
Heptachlor	0.568775	0.02	0.500000		114	64 - 93	1.52	20	L3
Heptachlor [2C]	0.546635	0.02	0.500000		109	64 - 93	2.33	20	L3
Heptachlor epoxide	0.538770	0.02	0.500000		108	65 - 98	1.20	20	L3
Heptachlor epoxide [2C]	0.547200	0.02	0.500000		109	65 - 98	1.70	20	L3
Methoxychlor	0.542035	0.25	0.500000		108	0 - 141	1.70	20	
Methoxychlor [2C]	0.433555	0.25	0.500000		86.7	0 - 141	4.57	20	
Surrogate: Decachlorobiphenyl	0.5993		0.500000		120	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.6106		0.500000		122	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5357		0.500000		107	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5798		0.500000		116	14 - 122			



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	ND	0.50				NR			
Aroclor 1221	ND	1.0				NR			
Aroclor 1232	ND	0.50				NR			
Aroclor 1242	ND	0.50				NR			
Aroclor 1248	ND	0.50				NR			
Aroclor 1254	ND	0.50				NR			
Aroclor 1260	ND	0.50				NR			
Aroclor 1262	ND	0.50				NR			
Aroclor 1268	ND	0.50				NR			

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.4041</i>		<i>0.500000</i>		<i>80.8</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.6008</i>		<i>0.500000</i>		<i>120</i>	<i>14 - 122</i>			

LCS (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.06606	0.50	5.00000		101	68 - 96			S12
Aroclor 1260	5.06638	0.50	5.00000		101	64 - 106			

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3855</i>		<i>0.500000</i>		<i>77.1</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.5881</i>		<i>0.500000</i>		<i>118</i>	<i>14 - 122</i>			

LCS Dup (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.10486	0.50	5.00000		102	68 - 96	0.763	20	S12
Aroclor 1260	5.15552	0.50	5.00000		103	64 - 106	1.74	20	

<i>Surrogate: Decachlorobiphenyl</i>	<i>0.3729</i>		<i>0.500000</i>		<i>74.6</i>	<i>7 - 127</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.5905</i>		<i>0.500000</i>		<i>118</i>	<i>14 - 122</i>			



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Irvine, CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
L3	Laboratory control sample outside in-house established limits but within method criteria.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 2

Instruction: Complete all shaded areas.

Company: TLC Solutions, Inc.		Address: 9685 Research Drive		Tel: 949-341-7467	
Attn: John Nordenstam		City: Irvine		Fax: 949-727-7311	
Company: TLC Solutions, Inc.		State: CA		Zip: 92618	
Address: 9685 Research Drive		SEND INVOICE TO: <input checked="" type="checkbox"/> same as SEND REPORT TO			
City: Irvine		State: CA		Zip: 92618	
Email: johnnordenstam@tcsolutions.com		Email: _____			

Project Name: LAUSD Roosevelt HS		Quote No: E161131		Special Instructions/Comments:	
Project No.: 265642.000 / TA02		PO #: 100816			
Sampler: A. Ramirez					
ITEM	Lab No.	Sample Description		Encircle or Write Requested Analysis	
		Sample ID / Location	Date	Time	
1	1608842-1	CR-3-0.5	10-30-16	0739	
2	1608842-2	CR-3-2.5		0744	
3	1608842-3	CRA-3-0.5		0758	
4	1608842-4	CRA-3-2.5		0804	
5	1608842-5	CRA-2-0.5		0812	
6	1608842-6	CRA-2-2.5		0816	
7	1608842-7	CR-2-0.5		0840	
8	1608842-8	CR-2-2.5		0843	
9	1608842-9	CR-1-0.5		0850	
10	1608842-10	CR-1-2.5		0854	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Alfon Ramirez** Signature: **Alfon Ramirez**

Relinquished by: (Signature and Printed Name)	Date: 10-30-16	Time: 11:35
Relinquished by: (Signature and Printed Name)	Date: 10-30-16	Time: 11:35
Relinquished by: (Signature and Printed Name)	Date: 10-30-16	Time: 11:35

CHAIN OF CUSTODY RECORD

Page 2 of 2

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATL COC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO		2. HEADSPACE (VOA)	<input type="checkbox"/> 6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/> Other:		3. CONTAINER IN CONTACT	<input type="checkbox"/> 7. COOLER TEMP. Deg C <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>

Company: <u>TRC Solutions, Inc.</u>		Address: <u>9685 Research Drive</u>		Tel: <u>949-341-7467</u>	
Attn: <u>John Nordensten</u>		City: <u>Irving</u>		State: <u>CA</u> Zip: <u>92618</u>	
Company: <u>TRC Solutions, Inc.</u>		Email: <u>jnordensten@trcsolutions.com</u>		Fax: <u>949-327-7311</u>	
Address: <u>9685 Research Drive</u>		SEND REPORT TO:		SEND INVOICE TO:	
City: <u>Irving</u>		State: <u>CA</u> Zip: <u>92618</u>		Email: <u>Same as SEND REPORT TO</u>	

Project Name: <u>LAUSD Roosevelt HS</u>		Quote No: <u>E16F131</u>		Special Instructions/Comments:	
Project No.: <u>265642.0000 / TA02</u>		PO #: <u>100816</u>			
Sampler: <u>265642.0000 / TA02</u>					
ITEM	Lab No.	Sample Description		Sample ID / Location	
1	1603842 -11	CR-5-0.5		10-30-16 0858	
2	-12	CR-5-2.5		0902	
3	-13	CR-4-0.5		0909	
4	-14	CR-4-2.5		0912	
5	-15	EB-16-10/30/16		1045	
6					
7					
8					
9					
10					

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.		7. Electronic records maintained for five (5) years from report date.	
2. Samples submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.		8. Hard copy reports will be disposed of after 45 calendar days from report date.	
3. The following surcharges and time charges apply to all samples:		9. Storage and Report Fees:	
TAT = 1 - 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)		- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.	
TAT = 2 - 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)		- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.	
TAT = 3 - 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)		- Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.	
TAT = 4 - 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)		10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.	
TAT = 5 - 10% Surcharge 5TH BUSINESS DAY (COB 5:00 PM)		11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	
4. Weekend holidays: NO SURCHARGE. 5th BUSINESS DAY (COB 5:00 PM)			
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge			
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air			

Relinquished by: <u>Allen Ramirez</u>	Date: <u>10-30-16</u>	Time: <u>11:35</u>
Relinquished by: <u>Allen Ramirez</u>	Date: <u>10-30-16</u>	Time: <u>11:35</u>
Relinquished by: <u>Allen Ramirez</u>	Date: <u>10-30-16</u>	Time: <u>11:35</u>

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Allen Ramirez Signature
Submitter Print Name

Time: 11:35
Date: 10-30-16

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Monday, October 31, 2016 8:09 AM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected October 29 and 30, 2016

Rachelle,

Please make the following additions/changes to the requested analyses for soil samples collected on October 29 and 30, 2016, at Roosevelt High School:

- **Analyze all soils samples collected at 2.5 feet for Arsenic and Lead** (the COC mistakenly requested that these samples be placed on Hold).
- **Please correct the sample names** for Samples CR-1-0.5, CR-1-2.5, CR-2-0.5, CR-2-2.5, CR-3-0.5, CR-3-2.5, CR-4-0.5, CR-4-2.5, CR-5-0.5, CR-5-2.5, CR-6-0.5, and CR-6-2.5 – the sample names should be CR1-1-0.5, CR1-1-2.5, CR1-2-0.5, CR1-2-2.5, CR1-3-0.5, CR1-3-2.5, CR1-4-0.5, CR1-4-2.5, CR1-5-0.5, CR1-5-2.5, CR1-6-0.5, and CR1-6-2.5 (the prefix for all samples should be CR1, not CR).
- **Do not perform PCB analysis (EPA Method 8082) on any of the discrete soil samples submitted for analysis.** Samples CR-1-0.5, CR-2-0.5, CR-3-0.5, CR-4-0.5, CR-5-0.5, CR-6-0.5, AS-1-0.5, AS-2-0.5, AS-3-0.5, and AS-4-0.5 were mistakenly identified on the COC as needing PCB analysis. Only composite soil samples will be analyzed for PCBs. A separate email request with instructions on compositing discrete soil samples for PCB and OCP analysis will be submitted later today.
- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 29, 2016 (100 soil samples)

Sample AA2573-2-0.5
Sample AA2685-4-2.5
Sample P14-0.5
Sample AA2543-2-2.5
Sample IA-3-0.5
Sample AS-2-2.5
Sample IM-3-0.5
Sample IM-6-2.5
Sample CRA-1-0.5
Sample CRB-4-2.5

Samples collected on October 30, 2016 (32 soil samples)

Sample CR1-1-0.5 (mistakenly labeled on COC as CR-1-0.5)
Sample AA2249-2-2.5
Sample AA2038-4-2.5

Please call me or John Nordenstam if you have any questions regarding this request.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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January 11, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603842
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 30, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a white background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CRA-2-0.5	1603842-05	Soil	10/30/16 8:12	10/30/16 11:51
CRA-2-2.5	1603842-06	Soil	10/30/16 8:16	10/30/16 11:51
CR1-2-0.5	1603842-07	Soil	10/30/16 8:40	10/30/16 11:51
CR1-5-0.5	1603842-11	Soil	10/30/16 8:58	10/30/16 11:51
CR1-4-0.5	1603842-13	Soil	10/30/16 9:09	10/30/16 11:51

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID CRA-2-0.5

Lab ID: 1603842-05

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:42	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID CRA-2-2.5

Lab ID: 1603842-06

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.4	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:43	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID CR1-2-0.5

Lab ID: 1603842-07

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.3	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:44	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID CR1-5-0.5

Lab ID: 1603842-11

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	25	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:45	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/11/2017

Client Sample ID CR1-4-0.5

Lab ID: 1603842-13

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	32	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:46	



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9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/11/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0221 - STLC_S Extraction									
Blank (B7A0221-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0221-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0221-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.14591		2.00000		107	80 - 120			
Duplicate (B7A0221-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	9.66282	1.0		9.72033	NR		0.593	20	
Duplicate (B7A0221-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	18.7563	1.0		18.6238	NR		0.709	20	
Matrix Spike (B7A0221-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.4314		2.00000	9.72033	85.6	44 - 130			
Matrix Spike (B7A0221-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	19.9180		2.00000	18.6238	64.7	44 - 130			
Matrix Spike Dup (B7A0221-MSD1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.7140		2.00000	9.72033	99.7	44 - 130	2.44	20	



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Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L		
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC	TTL	STLC	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Units:										
Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X			Perform laboratory analysis for STLC for lead
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X		Perform laboratory analysis for TCLP for lead
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160	X			Perform laboratory analysis for STLC for lead
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X			Perform laboratory analysis for STLC for lead
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X			Perform laboratory analysis for STLC for lead
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X			Perform laboratory analysis for STLC for lead
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19	---			Perform laboratory analysis for STLC for lead
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16	---			
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25	---			
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26	---			
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17	---			
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17	---			
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17	---			
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16	---			
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26	---			
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34	---			
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35	---			
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11	---			
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9	---			
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13	---			
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15	---			
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0	---			
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10	---			
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13	---			
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8	---			
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12	---			
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14	---			
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12	---			
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19	---			
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13	---			
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14	---			
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7	---			
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35	---			
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X			Perform laboratory analysis for STLC for lead
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X			Perform laboratory analysis for STLC for lead
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X			Perform laboratory analysis for STLC for lead
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74	---			
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61	---			
IM-3c-0-5	11/23/2016	1604246	0.5	66	X	---	---			Perform laboratory analysis for STLC for arsenic
IM-3c-2-5	11/23/2016	1604246	2.5	22	---	---	---			

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Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments	
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	mg/kg	STLc	mg/L	TTLc		mg/kg	STLc	mg/L	TCLP	mg/L
Screening Level: Units:										
IM-3c-3.5	11/23/2016	1604246	3.5	12	16	5.0	80	5.0		
IM-4-0.5	10/30/2016	1603842	0.5	16			66			
IM-4-2.5	10/30/2016	1603842	2.5	20			22			
IM-5-0.5	10/30/2016	1603842	0.5	29			54			
IM-5-2.5	10/30/2016	1603842	2.5	22			40			
IM-5d-0.5	11/23/2016	1604246	0.5	24						
IM-5d-3.5	11/23/2016	1604246	3.5	14						
IM-6-0.5	10/30/2016	1603842	0.5	12			36			
CRA-2-0.5	10/30/2016	1603842	0.5	3.6			110	X		Perform laboratory analysis for STLc for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5			140	X		Perform laboratory analysis for STLc for lead
CRA-2b-0.5	11/22/2016	1604231	0.5				89	X		Perform laboratory analysis for STLc for lead
CRA-2b-2.5	11/22/2016	1604231	2.5				720	X		Perform laboratory analysis for STLc for lead
CRA-2c-3.5	11/22/2016	1604231	3.5				120	X		Perform laboratory analysis for STLc for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16			55			
CR1-2-0.5	10/30/2016	1603842	0.5	4.1			100	X		Perform laboratory analysis for STLc for lead
CR1-2d-0.5	11/23/2016	1604246	0.5				120	X		Perform laboratory analysis for STLc for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9			130	X		Perform laboratory analysis for STLc for lead
CR1-4b-0.5	11/23/2016	1604246	0.5				350	X		Perform laboratory analysis for STLc for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3			170	X		Perform laboratory analysis for STLc for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23			310	X		Perform laboratory analysis for STLc for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15			18			
CR1-5b-0.25	11/23/2016	1604246	0.25	13			190	X		Perform laboratory analysis for STLc for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13			180	X		Perform laboratory analysis for STLc for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32			630	X		Perform laboratory analysis for STLc for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19			140	X		Perform laboratory analysis for STLc for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6			91	X		Perform laboratory analysis for STLc for lead
P15-0.5	10/30/2016	1603842	0.5	3.4			90	X		Perform laboratory analysis for STLc for lead
P15-2.5	10/30/2016	1603842	2.5	2.9			140	X		Perform laboratory analysis for STLc for lead
P15a-2.5	11/22/2016	1604231	2.5				150	X		Perform laboratory analysis for STLc for lead
P15b-0.5	11/22/2016	1604231	0.5				190	X		Perform laboratory analysis for STLc for lead
P15d-0.5	11/22/2016	1604231	0.5				140	X		Perform laboratory analysis for STLc for lead
P15d-2.5	11/22/2016	1604231	2.5				440	X		Perform laboratory analysis for STLc for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5				110	X		Perform laboratory analysis for STLc for lead
P16-0.5	10/30/2016	1603842	0.5	2.9			110	X		Perform laboratory analysis for STLc for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1			84	X		Perform laboratory analysis for STLc for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1			110	X		Perform laboratory analysis for STLc for lead
Q15a-2.5	11/22/2016	1604231	2.5				4200	X		Perform laboratory analysis for STLc for lead
Q15a-3.5	11/22/2016	1604231	3.5				190	X		Perform laboratory analysis for STLc for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5				280	X		Perform laboratory analysis for STLc for lead
R15-0.25	11/22/2016	1604231	0.25				95	X		Perform laboratory analysis for STLc for lead

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Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC	TCLP		
			Units:	mg/kg	mg/L	mg/kg	mg/L	mg/L		
			Screening Level:	12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 25, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603842
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 30, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/25/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CRA-2-0.5	1603842-05	Soil	10/30/16 8:12	10/30/16 11:51
CRA-2-2.5	1603842-06	Soil	10/30/16 8:16	10/30/16 11:51
CR1-2-0.5	1603842-07	Soil	10/30/16 8:40	10/30/16 11:51
CR1-5-0.5	1603842-11	Soil	10/30/16 8:58	10/30/16 11:51
CR1-4-0.5	1603842-13	Soil	10/30/16 9:09	10/30/16 11:51

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID CRA-2-0.5

Lab ID: 1603842-05

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 10:56	D1



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID CRA-2-2.5

Lab ID: 1603842-06

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.033	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 10:59	D1, J



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID CR1-2-0.5

Lab ID: 1603842-07

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.017	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:01	D1, J



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 01/25/2017

Client Sample ID CR1-5-0.5

Lab ID: 1603842-11

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.16	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:03	D1, J



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 01/25/2017

Client Sample ID CR1-4-0.5

Lab ID: 1603842-13

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.12	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:06	D1, J



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QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0627 - EPA 3010A_S									
Blank (B7A0627-BLK1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	ND	0.050			NR				
LCS (B7A0627-BS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	1.03480	0.050	1.00000		103	80 - 120			
Duplicate (B7A0627-DUP1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	0.542394	0.25		0.468285	NR		14.7	20	
Matrix Spike (B7A0627-MS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	3.01524	0.25	2.50000	0.468285	102	78 - 109			
Matrix Spike Dup (B7A0627-MSD1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	3.00022	0.25	2.50000	0.468285	101	78 - 109	0.500	20	



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Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 18, 2017 2:21 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Rachelle – we need to conduct additional analyses for TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 44 samples to be analyzed for TCLP for lead. Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TtLC	TCLP	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
			Units:							
			Screening Level:							
PE-3-2.5	10/15/2016	1603632	2.5	12	5.0	80	5.0	5.0	X	Perform laboratory analysis for TCLP for lead
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	92	5.5	5.5	X	Perform laboratory analysis for TCLP for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	5.8	5.8	X	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	4.7	4.7	---	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	16	16	X	Perform laboratory analysis for TCLP for lead
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	2.6	2.6	---	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	3.3	---	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	3.3	3.3	---	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	4.1	4.1	---	
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	6.1	0.029 J	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.3	6.3	X	Perform laboratory analysis for TCLP for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	---	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	3.6	3.6	---	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	---	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	11	0.095 J	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	3.0	3.0	---	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	6.6	6.6	X	Perform laboratory analysis for TCLP for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	6.4	ND<0.25	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	74	74	X	Perform laboratory analysis for TCLP for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	10	10	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	13	13	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	22	22	X	Perform laboratory analysis for TCLP for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	29	0.41	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	ND<1.0	ND<1.0	---	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	17	17	X	Perform laboratory analysis for TCLP for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	24	0.59	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	9.7	9.7	X	Perform laboratory analysis for TCLP for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	6.0	6.0	X	Perform laboratory analysis for TCLP for lead

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Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments		
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B					
				TTL	STLC	TTL	STLC	TTL	STLC			
				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L			
Units:				TTL	STLC	TTL	STLC	TTL	STLC	TCLP		
Screening Level:				12	5.0	80	5.0					
AUD-6-0.25	11/21/2016	1604222	0.25									
AUD-6-0.5	10/16/2016	1603634	0.5	5.2		160	7.8			X		Perform laboratory analysis for TCLP for lead
AUD-6b-0.5	11/21/2016	1604222	0.5	--		670	26			1.5		
AUD-6c-0.25	11/21/2016	1604222	0.25	--		160	13			X		Perform laboratory analysis for TCLP for lead
AUD-6c-0.25 DUP	11/21/2016	1604222	0.25	--		110	3.9					
AA1917-4-2.5	10/29/2016	1603827	2.5	2.5		82	6.2			X		Perform laboratory analysis for TCLP for lead
AA2684-2-0.5	10/29/2016	1603827	0.5	18		220	0.52 J					
AA2684-2-2.5	10/29/2016	1603827	2.5	20		19						
AA2684-3-2.5	10/29/2016	1603827	2.5	33		16						
AA2684-6-0.5	12/21/2016	1604849	0.5	27		25						
AA2684-6-0.5 DUP	12/21/2016	1604849	0.5	28								
AA2684-6-2.5	12/21/2016	1604849	2.5	28								
AA2684-6-3.5	12/21/2016	1604849	3.5	23								
AA2543-1-2.5	10/29/2016	1603827	2.5	34		26						
AA2543-2-0.5	10/29/2016	1603827	0.5	23		17						
AA2543-2-2.5	10/29/2016	1603827	2.5	25		17						
AA2543-2-2.5 DUP	10/29/2016	1603827	2.5	24		17						
AA2543-5-0.5	10/29/2016	1603827	0.5	25		16						
AA2543-5-2.5	10/29/2016	1603827	2.5	34		26						
AA2543-6-0.5	10/29/2016	1603827	0.5	39		34						
AA2543-6-2.5	10/29/2016	1603827	2.5	19		35						
AA2038-1-0.5	10/30/2016	1603843	0.5	23		11						
AA2038-1-2.5	10/30/2016	1603843	2.5	23		7.9						
AA2038-2-0.5	10/30/2016	1603843	0.5	14		13						
AA2038-2-2.5	10/30/2016	1603843	2.5	31		15						
AA2038-3-0.5	10/30/2016	1603843	0.5	13		8.0						
AA2038-3-2.5	10/30/2016	1603843	2.5	27		10						
AA2038-4-0.5	10/30/2016	1603843	0.5	16		13						
AA2038-4-2.5	10/30/2016	1603843	2.5	20		9.8						
AA2038-4-2.5 DUP	10/30/2016	1603843	2.5	21		12						
AA2038-7-0.5	12/21/2016	1604849	0.5	12								
AA2249-1-0.5	10/30/2016	1603843	0.5	24		14						
AA2249-1-2.5	10/30/2016	1603843	2.5	33		12						
AA2249-2-0.5	10/30/2016	1603843	0.5	22		19						
AA2249-2-2.5	10/30/2016	1603843	2.5	35		13						
AA2249-2-2.5 DUP	10/30/2016	1603843	2.5	31		14						
FS-2-0.5	10/23/2016	1603435	0.5	20		6.7						
IM-1-2.5	10/30/2016	1603842	2.5	20		35						
IM-2-2.5	10/30/2016	1603842	2.5	4.6		160	13			X		Perform laboratory analysis for TCLP for lead
IM-2b-0.5	11/23/2016	1604246	0.5	17		100	6.8			X		Perform laboratory analysis for TCLP for lead

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DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLG	STLC	TTLG	STLC	TCLP	
				mg/kg	mg/L	mg/kg	mg/L	mg/L	
Units:				Screening Level:					
IM-2b-0.5 DUP	11/23/2016	1604246	0.5	12	5.0	80	5.0	X	Perform laboratory analysis for TCLP for lead
IM-3-0.5	10/30/2016	1603842	0.5	17	---	150	6.3	---	
IM-3-0.5 DUP	10/30/2016	1603842	0.5	25	---	74	---	---	
IM-3c-0.5	10/30/2016	1603842	0.5	22	---	61	---	---	
IM-3c-0.5	11/23/2016	1604246	0.5	66	4.1	---	---	---	
IM-3c-2.5	11/23/2016	1604246	2.5	22	---	---	---	---	
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	10	X	Perform laboratory analysis for TCLP for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	5.4	X	Perform laboratory analysis for TCLP for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	4.5	---	
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	140	X	Perform laboratory analysis for TCLP for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	5.6	X	Perform laboratory analysis for TCLP for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	6.3	X	Perform laboratory analysis for TCLP for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	26	X	Perform laboratory analysis for TCLP for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	32	X	Perform laboratory analysis for TCLP for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	22	X	Perform laboratory analysis for TCLP for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	11	X	Perform laboratory analysis for TCLP for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	25	X	Perform laboratory analysis for TCLP for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	9.0	X	Perform laboratory analysis for TCLP for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	12	X	Perform laboratory analysis for TCLP for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	25	X	Perform laboratory analysis for TCLP for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	14	X	Perform laboratory analysis for TCLP for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	8.5	X	Perform laboratory analysis for TCLP for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	4.9	---	
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	9.7	X	Perform laboratory analysis for TCLP for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	2.2	---	
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	8.5	X	Perform laboratory analysis for TCLP for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	4.8	---	
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	7.3	X	Perform laboratory analysis for TCLP for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	11	X	Perform laboratory analysis for TCLP for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	7.4	X	Perform laboratory analysis for TCLP for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	3.6	---	

Table 2 DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California										
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TCLP		
			Units:	mg/kg	mg/L	mg/kg	mg/L	mg/L		
			Screening Level:	12	5.0	80	5.0			
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	6.0	X	Perform laboratory analysis for TCLP for lead	
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	190	X	Perform laboratory analysis for TCLP for lead	
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	120	X	Perform laboratory analysis for TCLP for lead	
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	6.5	X	Perform laboratory analysis for TCLP for lead	
R15-0.25	11/22/2016	1604231	0.25	---	---	95	0.78 J	---		
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	1.9	---		
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	8.3	X	Perform laboratory analysis for TCLP for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	2.2	---		
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	17	X	Perform laboratory analysis for TCLP for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	1.3	---		
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	3.4	---		
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	1.5	---		
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:
Table summarizes arsenic and lead laboratory analytical reports for soil samples.
Samples with detectable concentrations presented in **bold font**.
Arsenic screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRR) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).
LAUSD = Los Angeles Unified School District
ID = Identification
bgs = below ground surface
EPA = Environmental Protection Agency
--- = not analyzed

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
μg/L = micrograms per liter
DUP = Duplicate of preceding sample
J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
(2) = 1.1J Aroclor 1260

Notes:
 Table summarizes arsenic and lead laboratory analytical reports for soil samples.
 Samples with detectable concentrations presented in bold font.
 Arsenic screening level based on California background level.

TtLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3, Table 1 (DTSC, 2015).
 OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).

LAUSD = Los Angeles Unified School District
 ID = Identification
 bgs = below ground surface
 EPA = Environmental Protection Agency
 --- = not analyzed
 mg/kg = milligrams per kilogram
 mg/L = milligrams per liter
 µg/L = micrograms per liter
 DUP = Duplicate of preceding sample
 Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
 Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
 (2) = 11J Aroclor 1260





November 10, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603843
Client Reference : LAUSD Roosevelt HS, 265642.0000/TA02

Enclosed are the results for sample(s) received on October 30, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram to the left.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA2249-1-0.5	1603843-01	Soil	10/30/16 7:40	10/30/16 11:51
AA2249-1-2.5	1603843-02	Soil	10/30/16 7:45	10/30/16 11:51
AA2249-2-0.5	1603843-03	Soil	10/30/16 8:00	10/30/16 11:51
AA2249-2-2.5	1603843-04	Soil	10/30/16 8:05	10/30/16 11:51
CR1-6-0.5	1603843-05	Soil	10/30/16 8:15	10/30/16 11:51
CR1-6-2.5	1603843-06	Soil	10/30/16 8:20	10/30/16 11:51
AA2249-3-0.5	1603843-07	Soil	10/30/16 8:25	10/30/16 11:51
AA2249-3-2.5	1603843-08	Soil	10/30/16 8:30	10/30/16 11:51
AA2249-4-0.5	1603843-09	Soil	10/30/16 8:40	10/30/16 11:51
AA2249-4-2.5	1603843-10	Soil	10/30/16 8:45	10/30/16 11:51
AA2038-2-0.5	1603843-11	Soil	10/30/16 8:55	10/30/16 11:51
AA2038-2-2.5	1603843-12	Soil	10/30/16 9:00	10/30/16 11:51
AA2038-4-0.5	1603843-13	Soil	10/30/16 9:05	10/30/16 11:51
AA2038-4-2.5	1603843-14	Soil	10/30/16 9:10	10/30/16 11:51
AA2038-1-0.5	1603843-15	Soil	10/30/16 9:15	10/30/16 11:51
AA2038-1-2.5	1603843-16	Soil	10/30/16 9:20	10/30/16 11:51
AA2038-3-0.5	1603843-17	Soil	10/30/16 9:30	10/30/16 11:51
AA2038-3-2.5	1603843-18	Soil	10/30/16 9:35	10/30/16 11:51
EB-15-10/30/16	1603843-19	Water	10/30/16 10:00	10/30/16 11:51
AA2249-2-2.5 (Duplicate)	1603843-20	Soil	10/30/16 8:05	10/30/16 11:51
AA2038-4-2.5 (Duplicate)	1603843-21	Soil	10/30/16 9:10	10/30/16 11:51

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2249-1-0.5

Lab ID: 1603843-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	24	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 12:59	
Lead	14	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 12:59	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2249-1-2.5

Lab ID: 1603843-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	33	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:03	
Lead	12	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:03	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2249-2-0.5

Lab ID: 1603843-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	22	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:05	
Lead	19	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:05	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2249-2-2.5

Lab ID: 1603843-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	35	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:09	
Lead	13	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:09	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID CR1-6-0.5

Lab ID: 1603843-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:12	
Lead	10	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:12	



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Client Sample ID CR1-6-2.5

Lab ID: 1603843-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:15	
Lead	6.7	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:15	



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Report To : John Nordenstam

Reported : 11/10/2016

Client Sample ID AA2249-3-0.5

Lab ID: 1603843-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.4	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:47	
Lead	8.5	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:47	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2249-3-2.5

Lab ID: 1603843-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.9	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:51	
Lead	9.2	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:51	



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Report To : John Nordenstam

Reported : 11/10/2016

Client Sample ID AA2249-4-0.5

Lab ID: 1603843-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:54	
Lead	4.2	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:54	



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Client Sample ID AA2249-4-2.5

Lab ID: 1603843-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 13:57	
Lead	1.9	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 13:57	



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Client Sample ID AA2038-2-0.5

Lab ID: 1603843-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	0.70	1	B6K0218	11/05/2016	11/10/16 14:08	
Lead	13	1.0	0.11	1	B6K0218	11/05/2016	11/10/16 14:08	



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Reported : 11/10/2016

Client Sample ID AA2038-2-2.5

Lab ID: 1603843-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	31	2.0	1.4	2	B6K0218	11/05/2016	11/10/16 14:50	D5
Lead	15	2.0	0.23	2	B6K0218	11/05/2016	11/10/16 14:50	D5



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Reported : 11/10/2016

Client Sample ID AA2038-4-0.5

Lab ID: 1603843-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	0.70	1	B6K0219	11/05/2016	11/10/16 14:21	
Lead	13	1.0	0.11	1	B6K0219	11/05/2016	11/10/16 14:21	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2038-4-2.5

Lab ID: 1603843-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	1.0	0.70	1	B6K0219	11/05/2016	11/10/16 14:33	
Lead	9.8	1.0	0.11	1	B6K0219	11/05/2016	11/10/16 14:33	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2038-1-0.5

Lab ID: 1603843-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	23	1.0	0.70	1	B6K0219	11/05/2016	11/10/16 14:37	
Lead	11	1.0	0.11	1	B6K0219	11/05/2016	11/10/16 14:37	



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2038-1-2.5

Lab ID: 1603843-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	23	2.0	1.4	2	B6K0219	11/05/2016	11/10/16 15:09	D5
Lead	7.9	2.0	0.23	2	B6K0219	11/05/2016	11/10/16 15:09	D5



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Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2038-3-0.5

Lab ID: 1603843-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B6K0219	11/05/2016	11/10/16 14:57	
Lead	8.0	1.0	0.11	1	B6K0219	11/05/2016	11/10/16 14:57	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID AA2038-3-2.5

Lab ID: 1603843-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	27	1.0	0.70	1	B6K0219	11/05/2016	11/10/16 15:00	
Lead	10	1.0	0.11	1	B6K0219	11/05/2016	11/10/16 15:00	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0
Report To : John Nordenstam
Reported : 11/10/2016

Client Sample ID EB-15-10/30/16

Lab ID: 1603843-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K0252	11/07/2016	11/08/16 09:55	
Lead	ND	0.0050	0.0028	1	B6K0252	11/07/2016	11/08/16 09:55	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
4,4'-DDE	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
4,4'-DDT	ND	0.05	0.004	1	B6K0167	11/03/2016	11/07/16 19:37	
Aldrin	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:37	
alpha-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:37	
alpha-Chlordane	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
beta-BHC	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Chlordane	ND	0.25	0.03	1	B6K0167	11/03/2016	11/07/16 19:37	
delta-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:37	
Dieldrin	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Endosulfan I	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Endosulfan II	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Endosulfan sulfate	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Endrin	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Endrin aldehyde	ND	0.05	0.006	1	B6K0167	11/03/2016	11/07/16 19:37	
Endrin ketone	ND	0.05	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
gamma-BHC	ND	0.02	0.004	1	B6K0167	11/03/2016	11/07/16 19:37	
gamma-Chlordane	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Heptachlor	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Heptachlor epoxide	ND	0.02	0.005	1	B6K0167	11/03/2016	11/07/16 19:37	
Methoxychlor	ND	0.25	0.004	1	B6K0167	11/03/2016	11/07/16 19:37	
Toxaphene	ND	2.5	0.23	1	B6K0167	11/03/2016	11/07/16 19:37	
Surrogate: Decachlorobiphenyl	26.4 %		7 - 127		B6K0167	11/03/2016	11/07/16 19:37	
Surrogate: Tetrachloro-m-xylene	25.7 %		14 - 122		B6K0167	11/03/2016	11/07/16 19:37	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

Client Sample ID EB-15-10/30/16

Lab ID: 1603843-19

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1221	ND	1.0	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1232	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1242	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1248	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1254	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1260	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1262	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
Aroclor 1268	ND	0.50	0.06	1	B6K0167	11/03/2016	11/07/16 15:03	
<i>Surrogate: Decachlorobiphenyl</i>	<i>18.7 %</i>		<i>7 - 127</i>		B6K0167	11/03/2016	<i>11/07/16 15:03</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>30.3 %</i>		<i>14 - 122</i>		B6K0167	11/03/2016	<i>11/07/16 15:03</i>	



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Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

Client Sample ID AA2249-2-2.5 (Duplicate)

Lab ID: 1603843-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	31	1.0	0.70	1	B6K0219	11/05/2016	11/10/16 15:03	
Lead	14	1.0	0.11	1	B6K0219	11/05/2016	11/10/16 15:03	



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Reported : 11/10/2016

Client Sample ID AA2038-4-2.5 (Duplicate)

Lab ID: 1603843-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	21	1.0	0.70	1	B6K0219	11/05/2016	11/10/16 15:06	
Lead	12	1.0	0.11	1	B6K0219	11/05/2016	11/10/16 15:06	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0218 - EPA 3050B_S

Blank (B6K0218-BLK1)

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	ND	1.0			NR				
Lead	0.290632	1.0			NR				J

LCS (B6K0218-BS1)

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	41.3574	1.0	50.0000		82.7	80 - 120			
Lead	45.3667	1.0	50.0000		90.7	80 - 120			

Duplicate (B6K0218-DUP1)

Source: 1603842-09

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	3.82156	1.0		3.76238	NR		1.56	20	
Lead	46.8046	1.0		34.7847	NR		29.5	20	R

Matrix Spike (B6K0218-MS1)

Source: 1603842-09

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	93.4349	1.0	125.000	3.76238	71.7	59 - 103			
Lead	129.196	1.0	125.000	34.7847	75.5	34 - 129			

Matrix Spike Dup (B6K0218-MSD1)

Source: 1603842-09

Prepared: 11/5/2016 Analyzed: 11/9/2016

Arsenic	91.4146	1.0	125.000	3.76238	70.1	59 - 103	2.19	20	
Lead	145.840	1.0	125.000	34.7847	88.8	34 - 129	12.1	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0219 - EPA 3050B_S

Blank (B6K0219-BLK1)

Prepared: 11/5/2016 Analyzed: 11/10/2016

Arsenic	ND	1.0			NR				
Lead	0.228664	1.0			NR				J

LCS (B6K0219-BS1)

Prepared: 11/5/2016 Analyzed: 11/10/2016

Arsenic	46.1878	1.0	50.0000		92.4	80 - 120			
Lead	47.7235	1.0	50.0000		95.4	80 - 120			

Duplicate (B6K0219-DUP1)

Source: 1603843-13

Prepared: 11/5/2016 Analyzed: 11/10/2016

Arsenic	14.6458	1.0		15.5602	NR		6.05	20	
Lead	12.5669	1.0		12.8479	NR		2.21	20	

Matrix Spike (B6K0219-MS1)

Source: 1603843-13

Prepared: 11/5/2016 Analyzed: 11/10/2016

Arsenic	112.983	1.0	124.378	15.5602	78.3	59 - 103			
Lead	107.863	1.0	124.378	12.8479	76.4	34 - 129			

Matrix Spike Dup (B6K0219-MSD1)

Source: 1603843-13

Prepared: 11/5/2016 Analyzed: 11/10/2016

Arsenic	116.090	1.0	125.000	15.5602	80.4	59 - 103	2.71	20	
Lead	112.008	1.0	125.000	12.8479	79.3	34 - 129	3.77	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0252 - EPA 3010A_W

Blank (B6K0252-BLK1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010		NR					
Lead	ND	0.0050		NR					

LCS (B6K0252-BS1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	0.831160	0.010	1.00000	83.1	80 - 120				
Lead	0.941874	0.0050	1.00000	94.2	80 - 120				

Duplicate (B6K0252-DUP1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6K0252-MS1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.05852	0.010	2.50000	ND	82.3	74 - 123			
Lead	2.25178	0.0050	2.50000	ND	90.1	78 - 109			

Matrix Spike Dup (B6K0252-MSD1)

Source: 1603813-01

Prepared: 11/7/2016 Analyzed: 11/8/2016

Arsenic	2.12893	0.010	2.50000	ND	85.2	74 - 123	3.36	20	
Lead	2.32413	0.0050	2.50000	ND	93.0	78 - 109	3.16	20	



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Reported : 11/10/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	ND	0.05			NR
4,4'-DDD [2C]	ND	0.05			NR
4,4'-DDE	ND	0.05			NR
4,4'-DDE [2C]	ND	0.05			NR
4,4'-DDT	ND	0.05			NR
4,4'-DDT [2C]	ND	0.05			NR
Aldrin	ND	0.02			NR
Aldrin [2C]	ND	0.02			NR
alpha-BHC	ND	0.02			NR
alpha-BHC [2C]	ND	0.02			NR
alpha-Chlordane	ND	0.02			NR
alpha-Chlordane [2C]	ND	0.02			NR
beta-BHC	ND	0.02			NR
beta-BHC [2C]	ND	0.02			NR
Chlordane	ND	0.25			NR
Chlordane [2C]	ND	0.25			NR
delta-BHC	ND	0.02			NR
delta-BHC [2C]	ND	0.02			NR
Dieldrin	ND	0.05			NR
Dieldrin [2C]	ND	0.05			NR
Endosulfan I	ND	0.02			NR
Endosulfan I [2C]	ND	0.02			NR
Endosulfan II	ND	0.05			NR
Endosulfan II [2C]	ND	0.05			NR
Endosulfan sulfate	ND	0.05			NR
Endosulfan Sulfate [2C]	ND	0.05			NR
Endrin	ND	0.05			NR
Endrin [2C]	ND	0.05			NR
Endrin aldehyde	ND	0.05			NR
Endrin aldehyde [2C]	ND	0.05			NR
Endrin ketone	ND	0.05			NR
Endrin ketone [2C]	ND	0.05			NR
gamma-BHC	ND	0.02			NR
gamma-BHC [2C]	ND	0.02			NR
gamma-Chlordane	ND	0.02			NR
gamma-Chlordane [2C]	ND	0.02			NR
Heptachlor	ND	0.02			NR
Heptachlor [2C]	ND	0.02			NR
Heptachlor epoxide	ND	0.02			NR
Heptachlor epoxide [2C]	ND	0.02			NR
Methoxychlor	ND	0.25			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

Blank (B6K0167-BLK1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Methoxychlor [2C]	ND	0.25		NR				
Toxaphene	ND	2.5		NR				
Toxaphene [2C]	ND	2.5		NR				
Surrogate: Decachlorobiphenyl	0.5125		0.500000	102	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.5278		0.500000	106	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5037		0.500000	101	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5557		0.500000	111	14 - 122			

LCS (B6K0167-BS1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.586325	0.05	0.500000	117	59 - 109			L3
4,4'-DDD [2C]	0.589790	0.05	0.500000	118	59 - 109			L3
4,4'-DDE	0.559345	0.05	0.500000	112	63 - 101			L3
4,4'-DDE [2C]	0.565800	0.05	0.500000	113	63 - 101			L3
4,4'-DDT	0.513565	0.05	0.500000	103	36 - 96			L3
4,4'-DDT [2C]	0.434225	0.05	0.500000	86.8	36 - 96			L3
Aldrin	0.540205	0.02	0.500000	108	64 - 96			L3
Aldrin [2C]	0.565045	0.02	0.500000	113	64 - 96			L3
alpha-BHC	0.551640	0.02	0.500000	110	63 - 92			L3
alpha-BHC [2C]	0.572725	0.02	0.500000	115	63 - 92			L3
alpha-Chlordane	0.546770	0.02	0.500000	109	63 - 101			L3
alpha-Chlordane [2C]	0.561780	0.02	0.500000	112	63 - 101			L3
beta-BHC	0.528540	0.02	0.500000	106	58 - 95			L3
beta-BHC [2C]	0.551630	0.02	0.500000	110	58 - 95			L3
delta-BHC	0.538760	0.02	0.500000	108	37 - 107			L3
delta-BHC [2C]	0.569230	0.02	0.500000	114	37 - 107			L3
Dieldrin	0.574460	0.05	0.500000	115	62 - 102			L3
Dieldrin [2C]	0.583430	0.05	0.500000	117	62 - 102			L3
Endosulfan I	0.533240	0.02	0.500000	107	61 - 97			L3
Endosulfan I [2C]	0.558850	0.02	0.500000	112	61 - 97			L3
Endosulfan II	0.563435	0.05	0.500000	113	61 - 103			L3
Endosulfan II [2C]	0.563345	0.05	0.500000	113	61 - 103			L3
Endosulfan sulfate	0.542155	0.05	0.500000	108	60 - 112			L3
Endosulfan Sulfate [2C]	0.549890	0.05	0.500000	110	60 - 112			L3
Endrin	0.600925	0.05	0.500000	120	62 - 103			L3
Endrin [2C]	0.606590	0.05	0.500000	121	62 - 103			L3
Endrin aldehyde	0.557760	0.05	0.500000	112	64 - 116			L3
Endrin aldehyde [2C]	0.560790	0.05	0.500000	112	64 - 116			L3
Endrin ketone	0.570840	0.05	0.500000	114	56 - 113			L3
Endrin ketone [2C]	0.552315	0.05	0.500000	110	56 - 113			L3
gamma-BHC	0.579625	0.02	0.500000	116	64 - 95			L3
gamma-BHC [2C]	0.586315	0.02	0.500000	117	64 - 95			L3



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS (B6K0167-BS1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

gamma-Chlordane	0.541570	0.02	0.500000		108	64 - 99			L3
gamma-Chlordane [2C]	0.557085	0.02	0.500000		111	64 - 99			L3
Heptachlor	0.577470	0.02	0.500000		115	64 - 93			L3
Heptachlor [2C]	0.559495	0.02	0.500000		112	64 - 93			L3
Heptachlor epoxide	0.545255	0.02	0.500000		109	65 - 98			L3
Heptachlor epoxide [2C]	0.556585	0.02	0.500000		111	65 - 98			L3
Methoxychlor	0.551315	0.25	0.500000		110	0 - 141			
Methoxychlor [2C]	0.453815	0.25	0.500000		90.8	0 - 141			
Surrogate: Decachlorobiphenyl	0.6053		0.500000		121	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.6312		0.500000		126	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5451		0.500000		109	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5905		0.500000		118	14 - 122			

LCS Dup (B6K0167-BSD1)

Prepared: 11/3/2016 Analyzed: 11/7/2016

4,4'-DDD	0.574950	0.05	0.500000		115	59 - 109	1.96	20	L3
4,4'-DDD [2C]	0.576165	0.05	0.500000		115	59 - 109	2.34	20	L3
4,4'-DDE	0.549275	0.05	0.500000		110	63 - 101	1.82	20	L3
4,4'-DDE [2C]	0.551845	0.05	0.500000		110	63 - 101	2.50	20	L3
4,4'-DDT	0.505680	0.05	0.500000		101	36 - 96	1.55	20	L3
4,4'-DDT [2C]	0.417310	0.05	0.500000		83.5	36 - 96	3.97	20	
Aldrin	0.537410	0.02	0.500000		107	64 - 96	0.519	20	L3
Aldrin [2C]	0.552480	0.02	0.500000		110	64 - 96	2.25	20	L3
alpha-BHC	0.542470	0.02	0.500000		108	63 - 92	1.68	20	L3
alpha-BHC [2C]	0.561720	0.02	0.500000		112	63 - 92	1.94	20	L3
alpha-Chlordane	0.536085	0.02	0.500000		107	63 - 101	1.97	20	L3
alpha-Chlordane [2C]	0.547430	0.02	0.500000		109	63 - 101	2.59	20	L3
beta-BHC	0.519175	0.02	0.500000		104	58 - 95	1.79	20	L3
beta-BHC [2C]	0.538660	0.02	0.500000		108	58 - 95	2.38	20	L3
delta-BHC	0.528150	0.02	0.500000		106	37 - 107	1.99	20	
delta-BHC [2C]	0.556970	0.02	0.500000		111	37 - 107	2.18	20	L3
Dieldrin	0.564985	0.05	0.500000		113	62 - 102	1.66	20	L3
Dieldrin [2C]	0.570840	0.05	0.500000		114	62 - 102	2.18	20	L3
Endosulfan I	0.526015	0.02	0.500000		105	61 - 97	1.36	20	L3
Endosulfan I [2C]	0.548805	0.02	0.500000		110	61 - 97	1.81	20	L3
Endosulfan II	0.555550	0.05	0.500000		111	61 - 103	1.41	20	L3
Endosulfan II [2C]	0.552985	0.05	0.500000		111	61 - 103	1.86	20	L3
Endosulfan sulfate	0.537185	0.05	0.500000		107	60 - 112	0.921	20	
Endosulfan Sulfate [2C]	0.540225	0.05	0.500000		108	60 - 112	1.77	20	
Endrin	0.592450	0.05	0.500000		118	62 - 103	1.42	20	L3
Endrin [2C]	0.595640	0.05	0.500000		119	62 - 103	1.82	20	L3
Endrin aldehyde	0.555635	0.05	0.500000		111	64 - 116	0.382	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W (continued)

LCS Dup (B6K0167-BSD1) - Continued

Prepared: 11/3/2016 Analyzed: 11/7/2016

Endrin aldehyde [2C]	0.561430	0.05	0.500000		112	64 - 116	0.114	20	
Endrin ketone	0.564715	0.05	0.500000		113	56 - 113	1.08	20	
Endrin ketone [2C]	0.539740	0.05	0.500000		108	56 - 113	2.30	20	
gamma-BHC	0.568705	0.02	0.500000		114	64 - 95	1.90	20	L3
gamma-BHC [2C]	0.572955	0.02	0.500000		115	64 - 95	2.30	20	L3
gamma-Chlordane	0.531205	0.02	0.500000		106	64 - 99	1.93	20	L3
gamma-Chlordane [2C]	0.542850	0.02	0.500000		109	64 - 99	2.59	20	L3
Heptachlor	0.568775	0.02	0.500000		114	64 - 93	1.52	20	L3
Heptachlor [2C]	0.546635	0.02	0.500000		109	64 - 93	2.33	20	L3
Heptachlor epoxide	0.538770	0.02	0.500000		108	65 - 98	1.20	20	L3
Heptachlor epoxide [2C]	0.547200	0.02	0.500000		109	65 - 98	1.70	20	L3
Methoxychlor	0.542035	0.25	0.500000		108	0 - 141	1.70	20	
Methoxychlor [2C]	0.433555	0.25	0.500000		86.7	0 - 141	4.57	20	
Surrogate: Decachlorobiphenyl	0.5993		0.500000		120	7 - 127			
Surrogate: Decachlorobiphenyl [2C]	0.6106		0.500000		122	7 - 127			
Surrogate: Tetrachloro-m-xylene	0.5357		0.500000		107	14 - 122			
Surrogate: Tetrachloro-m-xylene [2C]	0.5798		0.500000		116	14 - 122			



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Reported : 11/10/2016

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0167 - GCSEMI_PCB/PEST_W

Blank (B6K0167-BLK2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.4041 0.500000 80.8 7 - 127
0.6008 0.500000 120 14 - 122

LCS (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.06606	0.50	5.00000	101	68 - 96				S12
Aroclor 1260	5.06638	0.50	5.00000	101	64 - 106				

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3855 0.500000 77.1 7 - 127
0.5881 0.500000 118 14 - 122

LCS Dup (B6K0167-BS2)

Prepared: 11/3/2016 Analyzed: 11/7/2016

Aroclor 1016	5.10486	0.50	5.00000	102	68 - 96	0.763	20		S12
Aroclor 1260	5.15552	0.50	5.00000	103	64 - 106	1.74	20		

Surrogate: Decachlorobiphenyl
Surrogate: Tetrachloro-m-xylene

0.3729 0.500000 74.6 7 - 127
0.5905 0.500000 118 14 - 122



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS, 265642.0000/TA0

Report To : John Nordenstam

Reported : 11/10/2016

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
L3	Laboratory control sample outside in-house established limits but within method criteria.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: TRC Solutions Inc		Address: 9685 Research		Tel: Dr	
Attn: John Nordenstam		City: Irvine CA		State: CA	
Company: TRC Solutions Inc		Zip: 92618		Fax: 92618	
Address: 9685 Research		Email: john.nordenstam@trcsolutions.com		SEND INVOICE TO: <input checked="" type="checkbox"/> Same as SEND REPORT TO	
City: Irvine		State: CA		Zip: 92618	

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	AA2038-2-0.5	AA2038-2-0.5	10/30/16 0855	10/30/16 0855	10/30/16 0855	AS EPA 6010B EPA 8081A EPA 8082	SOIL / SEDIMENT / SLUDGE	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
2	AA2038-2-2.5	AA2038-2-2.5	10/30/16 0900	10/30/16 0900	10/30/16 0900	AS EPA 6010B EPA 8081A EPA 8082	WATER - DRINKING / GROUND	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
3	AA2038-4-0.5	AA2038-4-0.5	10/30/16 0905	10/30/16 0905	10/30/16 0905	AS EPA 6010B EPA 8081A EPA 8082	WATER - STORM / WASTE	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
4	AA2038-4-2.5	AA2038-4-2.5	10/30/16 0910	10/30/16 0910	10/30/16 0910	AS EPA 6010B EPA 8081A EPA 8082	WATER - DRINKING / GROUND	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
5	AA2038-1-0.5	AA2038-1-0.5	10/30/16 0915	10/30/16 0915	10/30/16 0915	AS EPA 6010B EPA 8081A EPA 8082	WATER - STORM / WASTE	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
6	AA2038-1-2.5	AA2038-1-2.5	10/30/16 0920	10/30/16 0920	10/30/16 0920	AS EPA 6010B EPA 8081A EPA 8082	WATER - DRINKING / GROUND	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
7	AA2038-3-0.5	AA2038-3-0.5	10/30/16 0930	10/30/16 0930	10/30/16 0930	AS EPA 6010B EPA 8081A EPA 8082	WATER - STORM / WASTE	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
8	AA2038-3-2.5	AA2038-3-2.5	10/30/16 0935	10/30/16 0935	10/30/16 0935	AS EPA 6010B EPA 8081A EPA 8082	WATER - DRINKING / GROUND	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
9	EB-15-10/30/16	EB-15-10/30/16	10/30/16 1000	10/30/16 1000	10/30/16 1000	AS EPA 6010B EPA 8081A EPA 8082	WATER - STORM / WASTE	51 51 4	ROUTINE CALTRANS LEGAL RWQCB LEVEL IV
10									

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Allen Ramirez** Signature: **Allen Ramirez**

Date: **10-30-16** Time: **1050**

Received by: **Allen Ramirez** (Signature and Printed Name)

Date: **10-30-16** Time: **1135**

Received by: **Allen Ramirez** (Signature and Printed Name)

Date: **10-30-16** Time: **1135**

Received by: **Allen Ramirez** (Signature and Printed Name)

Date: **10-30-16** Time: **1135**

Received by: **Allen Ramirez** (Signature and Printed Name)

Date: **10-30-16** Time: **1135**

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Monday, October 31, 2016 8:09 AM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected October 29 and 30, 2016

Rachelle,

Please make the following additions/changes to the requested analyses for soil samples collected on October 29 and 30, 2016, at Roosevelt High School:

- **Analyze all soils samples collected at 2.5 feet for Arsenic and Lead** (the COC mistakenly requested that these samples be placed on Hold).
- **Please correct the sample names** for Samples CR-1-0.5, CR-1-2.5, CR-2-0.5, CR-2-2.5, CR-3-0.5, CR-3-2.5, CR-4-0.5, CR-4-2.5, CR-5-0.5, CR-5-2.5, CR-6-0.5, and CR-6-2.5 – the sample names should be CR1-1-0.5, CR1-1-2.5, CR1-2-0.5, CR1-2-2.5, CR1-3-0.5, CR1-3-2.5, CR1-4-0.5, CR1-4-2.5, CR1-5-0.5, CR1-5-2.5, CR1-6-0.5, and CR1-6-2.5 (the prefix for all samples should be CR1, not CR).
- **Do not perform PCB analysis (EPA Method 8082) on any of the discrete soil samples submitted for analysis.** Samples CR-1-0.5, CR-2-0.5, CR-3-0.5, CR-4-0.5, CR-5-0.5, CR-6-0.5, AS-1-0.5, AS-2-0.5, AS-3-0.5, and AS-4-0.5 were mistakenly identified on the COC as needing PCB analysis. Only composite soil samples will be analyzed for PCBs. A separate email request with instructions on compositing discrete soil samples for PCB and OCP analysis will be submitted later today.
- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and Lead (EPA Method 6010B).

Samples collected on October 29, 2016 (100 soil samples)

Sample AA2573-2-0.5
Sample AA2685-4-2.5
Sample P14-0.5
Sample AA2543-2-2.5
Sample IA-3-0.5
Sample AS-2-2.5
Sample IM-3-0.5
Sample IM-6-2.5
Sample CRA-1-0.5
Sample CRB-4-2.5

Samples collected on October 30, 2016 (32 soil samples)

Sample CR1-1-0.5 (mistakenly labeled on COC as CR-1-0.5)
Sample AA2249-2-2.5
Sample AA2038-4-2.5

Please call me or John Nordenstam if you have any questions regarding this request.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.7329 F: 949.727.7311 C: 949.244.8143

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November 09, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1603852

Client Reference : LAUSD Roosevelt HS PEA, 265642.0000 / TA02

Enclosed are the results for sample(s) received on November 01, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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9685 Research Drive

Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/09/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Composite F1	1603852-01	Soil	10/23/16 0:00	11/01/16 14:01
Composite F2	1603852-02	Soil	10/23/16 0:00	11/01/16 14:01
Composite F3	1603852-03	Soil	10/23/16 0:00	11/01/16 14:01
Composite F4	1603852-04	Soil	10/23/16 0:00	11/01/16 14:01
Composite F5	1603852-05	Soil	10/29/16 0:00	11/01/16 14:01
Composite F6	1603852-06	Soil	10/29/16 0:00	11/01/16 14:01
Composite F7	1603852-07	Soil	10/29/16 0:00	11/01/16 14:01
Composite F8	1603852-08	Soil	10/29/16 0:00	11/01/16 14:01
Composite F9	1603852-09	Soil	10/29/16 0:00	11/01/16 14:01
Composite F10	1603852-10	Soil	10/30/16 0:00	11/01/16 14:01
Composite F11	1603852-11	Soil	10/30/16 0:00	11/01/16 14:01
Composite F12	1603852-12	Soil	10/23/16 0:00	11/01/16 14:01
Composite F13	1603852-13	Soil	10/29/16 0:00	11/01/16 14:01
Composite F14	1603852-14	Soil	10/29/16 0:00	11/01/16 14:01
Composite F15	1603852-15	Soil	10/29/16 0:00	11/01/16 14:01
Composite F16	1603852-16	Soil	10/29/16 0:00	11/01/16 14:01
Composite F17	1603852-17	Soil	10/29/16 0:00	11/01/16 14:01
Composite F18	1603852-18	Soil	10/30/16 0:00	11/01/16 14:01
Composite F19	1603852-19	Soil	10/30/16 0:00	11/01/16 14:01
Composite F20	1603852-20	Soil	10/29/16 0:00	11/01/16 14:01
Composite F21	1603852-21	Soil	10/29/16 0:00	11/01/16 14:01
Composite F22	1603852-22	Soil	10/29/16 0:00	11/01/16 14:01
Composite F10 (Duplicate)	1603852-23	Soil	10/30/16 0:00	11/01/16 14:01
Composite F18 (Duplicate)	1603852-24	Soil	10/30/16 0:00	11/01/16 14:01

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F1 Lab ID: 1603852-01

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	20	2.2	10	B6K0188	11/04/2016	11/08/16 17:13	
4,4'-DDE	ND	20	2.0	10	B6K0188	11/04/2016	11/08/16 17:13	
4,4'-DDT	ND	20	1.3	10	B6K0188	11/04/2016	11/08/16 17:13	
Aldrin	ND	10	2.7	10	B6K0188	11/04/2016	11/08/16 17:13	
alpha-BHC	ND	10	2.0	10	B6K0188	11/04/2016	11/08/16 17:13	
alpha-Chlordane	ND	10	2.1	10	B6K0188	11/04/2016	11/08/16 17:13	
beta-BHC	ND	10	2.3	10	B6K0188	11/04/2016	11/08/16 17:13	
Chlordane	ND	85	9.0	10	B6K0188	11/04/2016	11/08/16 17:13	
delta-BHC	ND	10	2.1	10	B6K0188	11/04/2016	11/08/16 17:13	
Dieldrin	ND	20	2.5	10	B6K0188	11/04/2016	11/08/16 17:13	
Endosulfan I	ND	10	2.1	10	B6K0188	11/04/2016	11/08/16 17:13	
Endosulfan II	ND	20	2.2	10	B6K0188	11/04/2016	11/08/16 17:13	
Endosulfan sulfate	ND	20	2.1	10	B6K0188	11/04/2016	11/08/16 17:13	
Endrin	ND	20	2.3	10	B6K0188	11/04/2016	11/08/16 17:13	
Endrin aldehyde	ND	20	2.8	10	B6K0188	11/04/2016	11/08/16 17:13	
Endrin ketone	ND	20	2.0	10	B6K0188	11/04/2016	11/08/16 17:13	
gamma-BHC	ND	10	2.0	10	B6K0188	11/04/2016	11/08/16 17:13	
gamma-Chlordane	ND	10	2.3	10	B6K0188	11/04/2016	11/08/16 17:13	
Heptachlor	ND	10	1.9	10	B6K0188	11/04/2016	11/08/16 17:13	
Heptachlor epoxide	ND	10	2.0	10	B6K0188	11/04/2016	11/08/16 17:13	
Methoxychlor	ND	50	1.8	10	B6K0188	11/04/2016	11/08/16 17:13	
Toxaphene	ND	500	82	10	B6K0188	11/04/2016	11/08/16 17:13	
Surrogate: Decachlorobiphenyl	108 %		27 - 123		B6K0188	11/04/2016	11/08/16 17:13	
Surrogate: Tetrachloro-m-xylene	59.5 %		26 - 108		B6K0188	11/04/2016	11/08/16 17:13	



Certificate of Analysis

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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F1

Lab ID: 1603852-01

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1221	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1232	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1242	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1248	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1254	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1260	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1262	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Aroclor 1268	ND	16	1.5	1	B6K0188	11/04/2016	11/07/16 11:52	
Surrogate: Decachlorobiphenyl	43.7 %		26 - 137		B6K0188	11/04/2016	11/07/16 11:52	
Surrogate: Tetrachloro-m-xylene	74.9 %		28 - 102		B6K0188	11/04/2016	11/07/16 11:52	



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Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F2

Lab ID: 1603852-02

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	20	2.2	10	B6K0188	11/04/2016	11/08/16 17:25	
4,4'-DDE	ND	20	2.0	10	B6K0188	11/04/2016	11/08/16 17:25	
4,4'-DDT	ND	20	1.3	10	B6K0188	11/04/2016	11/08/16 17:25	
Aldrin	ND	10	2.7	10	B6K0188	11/04/2016	11/08/16 17:25	
alpha-BHC	ND	10	2.0	10	B6K0188	11/04/2016	11/08/16 17:25	
alpha-Chlordane	ND	10	2.1	10	B6K0188	11/04/2016	11/08/16 17:25	
beta-BHC	ND	10	2.3	10	B6K0188	11/04/2016	11/08/16 17:25	
Chlordane	ND	85	9.0	10	B6K0188	11/04/2016	11/08/16 17:25	
delta-BHC	ND	10	2.1	10	B6K0188	11/04/2016	11/08/16 17:25	
Dieldrin	ND	20	2.5	10	B6K0188	11/04/2016	11/08/16 17:25	
Endosulfan I	ND	10	2.1	10	B6K0188	11/04/2016	11/08/16 17:25	
Endosulfan II	ND	20	2.2	10	B6K0188	11/04/2016	11/08/16 17:25	
Endosulfan sulfate	ND	20	2.1	10	B6K0188	11/04/2016	11/08/16 17:25	
Endrin	ND	20	2.3	10	B6K0188	11/04/2016	11/08/16 17:25	
Endrin aldehyde	ND	20	2.8	10	B6K0188	11/04/2016	11/08/16 17:25	
Endrin ketone	ND	20	2.0	10	B6K0188	11/04/2016	11/08/16 17:25	
gamma-BHC	ND	10	2.0	10	B6K0188	11/04/2016	11/08/16 17:25	
gamma-Chlordane	ND	10	2.3	10	B6K0188	11/04/2016	11/08/16 17:25	
Heptachlor	ND	10	1.9	10	B6K0188	11/04/2016	11/08/16 17:25	
Heptachlor epoxide	ND	10	2.0	10	B6K0188	11/04/2016	11/08/16 17:25	
Methoxychlor	ND	50	1.8	10	B6K0188	11/04/2016	11/08/16 17:25	
Toxaphene	ND	500	82	10	B6K0188	11/04/2016	11/08/16 17:25	
Surrogate: Decachlorobiphenyl	94.2 %		27 - 123		B6K0188	11/04/2016	11/08/16 17:25	
Surrogate: Tetrachloro-m-xylene	58.8 %		26 - 108		B6K0188	11/04/2016	11/08/16 17:25	



Certificate of Analysis

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9685 Research Drive
Irvine, CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F3

Lab ID: 1603852-03

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 17:37	
4,4'-DDE	1.9	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:37	J
4,4'-DDT [2C]	1.9	2.0	0.13	1	B6K0188	11/04/2016	11/08/16 17:37	J
Aldrin	ND	1.0	0.27	1	B6K0188	11/04/2016	11/08/16 17:37	
alpha-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:37	
alpha-Chlordane	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:37	
beta-BHC	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 17:37	
Chlordane	ND	8.5	0.90	1	B6K0188	11/04/2016	11/08/16 17:37	
delta-BHC	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:37	
Dieldrin	5.6	2.0	0.25	1	B6K0188	11/04/2016	11/08/16 17:37	
Endosulfan I	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:37	
Endosulfan II	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 17:37	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:37	
Endrin	ND	2.0	0.23	1	B6K0188	11/04/2016	11/08/16 17:37	
Endrin aldehyde	ND	2.0	0.28	1	B6K0188	11/04/2016	11/08/16 17:37	
Endrin ketone	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:37	
gamma-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:37	
gamma-Chlordane	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 17:37	
Heptachlor	ND	1.0	0.19	1	B6K0188	11/04/2016	11/08/16 17:37	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:37	
Methoxychlor	ND	5.0	0.18	1	B6K0188	11/04/2016	11/08/16 17:37	
Toxaphene	ND	50	8.2	1	B6K0188	11/04/2016	11/08/16 17:37	
Surrogate: Decachlorobiphenyl	63.2 %		27 - 123		B6K0188	11/04/2016	11/08/16 17:37	
Surrogate: Tetrachloro-m-xylene	69.0 %		26 - 108		B6K0188	11/04/2016	11/08/16 17:37	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F4

Lab ID: 1603852-04

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 17:49	
4,4'-DDE	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:49	
4,4'-DDT	ND	2.0	0.13	1	B6K0188	11/04/2016	11/08/16 17:49	
Aldrin	ND	1.0	0.27	1	B6K0188	11/04/2016	11/08/16 17:49	
alpha-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:49	
alpha-Chlordane	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:49	
beta-BHC	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 17:49	
Chlordane	ND	8.5	0.90	1	B6K0188	11/04/2016	11/08/16 17:49	
delta-BHC	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:49	
Dieldrin	13	2.0	0.25	1	B6K0188	11/04/2016	11/08/16 17:49	
Endosulfan I	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:49	
Endosulfan II	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 17:49	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0188	11/04/2016	11/08/16 17:49	
Endrin	ND	2.0	0.23	1	B6K0188	11/04/2016	11/08/16 17:49	
Endrin aldehyde	ND	2.0	0.28	1	B6K0188	11/04/2016	11/08/16 17:49	
Endrin ketone	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:49	
gamma-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:49	
gamma-Chlordane	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 17:49	
Heptachlor	ND	1.0	0.19	1	B6K0188	11/04/2016	11/08/16 17:49	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 17:49	
Methoxychlor	ND	5.0	0.18	1	B6K0188	11/04/2016	11/08/16 17:49	
Toxaphene	ND	50	8.2	1	B6K0188	11/04/2016	11/08/16 17:49	
<i>Surrogate: Decachlorobiphenyl</i>	<i>64.1 %</i>	<i>27 - 123</i>			B6K0188	11/04/2016	<i>11/08/16 17:49</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>62.5 %</i>	<i>26 - 108</i>			B6K0188	11/04/2016	<i>11/08/16 17:49</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F5

Lab ID: 1603852-05

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 10:42	
4,4'-DDE	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 10:42	
4,4'-DDT	ND	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 10:42	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 10:42	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 10:42	
alpha-Chlordane	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 10:42	
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 10:42	
Chlordane	ND	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 10:42	
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 10:42	
Dieldrin [2C]	2.8	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 10:42	
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 10:42	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 10:42	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 10:42	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 10:42	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 10:42	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 10:42	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 10:42	
gamma-Chlordane	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 10:42	
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 10:42	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 10:42	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 10:42	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 10:42	
<i>Surrogate: Decachlorobiphenyl</i>	<i>77.0 %</i>		<i>27 - 123</i>		B6K0249	11/07/2016	<i>11/08/16 10:42</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>59.8 %</i>		<i>26 - 108</i>		B6K0249	11/07/2016	<i>11/08/16 10:42</i>	



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Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F6

Lab ID: 1603852-06

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	
4,4'-DDE	ND	10	0.98	5	B6K0249	11/07/2016	11/08/16 10:53	
4,4'-DDT	15	10	0.67	5	B6K0249	11/07/2016	11/08/16 10:53	
Aldrin	ND	5.0	1.3	5	B6K0249	11/07/2016	11/08/16 10:53	
alpha-BHC	ND	5.0	0.99	5	B6K0249	11/07/2016	11/08/16 10:53	
alpha-Chlordane	1.3	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	J
beta-BHC	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	
Chlordane [2C]	18	42	4.5	5	B6K0249	11/07/2016	11/08/16 10:53	J
delta-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 10:53	
Dieldrin	2.0	10	1.2	5	B6K0249	11/07/2016	11/08/16 10:53	J
Endosulfan I	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	
Endosulfan II	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	
Endosulfan sulfate	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	
Endrin	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	
Endrin aldehyde	ND	10	1.4	5	B6K0249	11/07/2016	11/08/16 10:53	
Endrin ketone	ND	10	1.0	5	B6K0249	11/07/2016	11/08/16 10:53	
gamma-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 10:53	
gamma-Chlordane	2.0	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 10:53	J
Heptachlor	ND	5.0	0.95	5	B6K0249	11/07/2016	11/08/16 10:53	
Heptachlor epoxide	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 10:53	
Methoxychlor	ND	25	0.89	5	B6K0249	11/07/2016	11/08/16 10:53	
Toxaphene	ND	250	41	5	B6K0249	11/07/2016	11/08/16 10:53	
Surrogate: Decachlorobiphenyl	47.5 %	27 - 123			B6K0249	11/07/2016	11/08/16 10:53	
Surrogate: Tetrachloro-m-xylene	48.5 %	26 - 108			B6K0249	11/07/2016	11/08/16 10:53	



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Report To : John Nordenstam
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Client Sample ID Composite F7

Lab ID: 1603852-07

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
4,4'-DDE	ND	10	0.98	5	B6K0249	11/07/2016	11/08/16 11:03	
4,4'-DDT	ND	10	0.67	5	B6K0249	11/07/2016	11/08/16 11:03	
Aldrin	ND	5.0	1.3	5	B6K0249	11/07/2016	11/08/16 11:03	
alpha-BHC	ND	5.0	0.99	5	B6K0249	11/07/2016	11/08/16 11:03	
alpha-Chlordane	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
beta-BHC	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
Chlordane	5.1	42	4.5	5	B6K0249	11/07/2016	11/08/16 11:03	J
delta-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:03	
Dieldrin	ND	10	1.2	5	B6K0249	11/07/2016	11/08/16 11:03	
Endosulfan I	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
Endosulfan II	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
Endosulfan sulfate	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
Endrin	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
Endrin aldehyde	ND	10	1.4	5	B6K0249	11/07/2016	11/08/16 11:03	
Endrin ketone	ND	10	1.0	5	B6K0249	11/07/2016	11/08/16 11:03	
gamma-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:03	
gamma-Chlordane	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:03	
Heptachlor	ND	5.0	0.95	5	B6K0249	11/07/2016	11/08/16 11:03	
Heptachlor epoxide	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:03	
Methoxychlor	ND	25	0.89	5	B6K0249	11/07/2016	11/08/16 11:03	
Toxaphene	ND	250	41	5	B6K0249	11/07/2016	11/08/16 11:03	
<i>Surrogate: Decachlorobiphenyl</i>	<i>59.7 %</i>		<i>27 - 123</i>		B6K0249	11/07/2016	<i>11/08/16 11:03</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>57.8 %</i>		<i>26 - 108</i>		B6K0249	11/07/2016	<i>11/08/16 11:03</i>	



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Client Sample ID Composite F8

Lab ID: 1603852-08

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
4,4'-DDE	ND	10	0.98	5	B6K0249	11/07/2016	11/08/16 11:14	
4,4'-DDT	ND	10	0.67	5	B6K0249	11/07/2016	11/08/16 11:14	
Aldrin	ND	5.0	1.3	5	B6K0249	11/07/2016	11/08/16 11:14	
alpha-BHC	ND	5.0	0.99	5	B6K0249	11/07/2016	11/08/16 11:14	
alpha-Chlordane	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
beta-BHC	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
Chlordane	6.5	42	4.5	5	B6K0249	11/07/2016	11/08/16 11:14	J
delta-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:14	
Dieldrin	ND	10	1.2	5	B6K0249	11/07/2016	11/08/16 11:14	
Endosulfan I	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
Endosulfan II	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
Endosulfan sulfate	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
Endrin	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
Endrin aldehyde	ND	10	1.4	5	B6K0249	11/07/2016	11/08/16 11:14	
Endrin ketone	ND	10	1.0	5	B6K0249	11/07/2016	11/08/16 11:14	
gamma-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:14	
gamma-Chlordane	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:14	
Heptachlor	ND	5.0	0.95	5	B6K0249	11/07/2016	11/08/16 11:14	
Heptachlor epoxide	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:14	
Methoxychlor	ND	25	0.89	5	B6K0249	11/07/2016	11/08/16 11:14	
Toxaphene	ND	250	41	5	B6K0249	11/07/2016	11/08/16 11:14	
Surrogate: Decachlorobiphenyl	41.6 %	27 - 123			B6K0249	11/07/2016	11/08/16 11:14	
Surrogate: Tetrachloro-m-xylene	34.9 %	26 - 108			B6K0249	11/07/2016	11/08/16 11:14	



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Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F9

Lab ID: 1603852-09

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
4,4'-DDE	ND	10	0.98	5	B6K0249	11/07/2016	11/08/16 11:24	
4,4'-DDT	ND	10	0.67	5	B6K0249	11/07/2016	11/08/16 11:24	
Aldrin	ND	5.0	1.3	5	B6K0249	11/07/2016	11/08/16 11:24	
alpha-BHC	ND	5.0	0.99	5	B6K0249	11/07/2016	11/08/16 11:24	
alpha-Chlordane	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
beta-BHC	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
Chlordane	ND	42	4.5	5	B6K0249	11/07/2016	11/08/16 11:24	
delta-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:24	
Dieldrin	ND	10	1.2	5	B6K0249	11/07/2016	11/08/16 11:24	
Endosulfan I	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
Endosulfan II	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
Endosulfan sulfate	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
Endrin	ND	10	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
Endrin aldehyde	ND	10	1.4	5	B6K0249	11/07/2016	11/08/16 11:24	
Endrin ketone	ND	10	1.0	5	B6K0249	11/07/2016	11/08/16 11:24	
gamma-BHC	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:24	
gamma-Chlordane	ND	5.0	1.1	5	B6K0249	11/07/2016	11/08/16 11:24	
Heptachlor	ND	5.0	0.95	5	B6K0249	11/07/2016	11/08/16 11:24	
Heptachlor epoxide	ND	5.0	1.0	5	B6K0249	11/07/2016	11/08/16 11:24	
Methoxychlor	ND	25	0.89	5	B6K0249	11/07/2016	11/08/16 11:24	
Toxaphene	ND	250	41	5	B6K0249	11/07/2016	11/08/16 11:24	
Surrogate: Decachlorobiphenyl	40.0 %		27 - 123		B6K0249	11/07/2016	11/08/16 11:24	
Surrogate: Tetrachloro-m-xylene	32.6 %		26 - 108		B6K0249	11/07/2016	11/08/16 11:24	



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Client Sample ID Composite F10

Lab ID: 1603852-10

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 11:35	
4,4'-DDE	ND	20	2.0	10	B6K0249	11/07/2016	11/08/16 11:35	
4,4'-DDT	ND	20	1.3	10	B6K0249	11/07/2016	11/08/16 11:35	
Aldrin	ND	10	2.7	10	B6K0249	11/07/2016	11/08/16 11:35	
alpha-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 11:35	
alpha-Chlordane	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 11:35	
beta-BHC	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 11:35	
Chlordane	ND	85	9.0	10	B6K0249	11/07/2016	11/08/16 11:35	
delta-BHC	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 11:35	
Dieldrin	ND	20	2.5	10	B6K0249	11/07/2016	11/08/16 11:35	
Endosulfan I	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 11:35	
Endosulfan II	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 11:35	
Endosulfan sulfate	ND	20	2.1	10	B6K0249	11/07/2016	11/08/16 11:35	
Endrin	ND	20	2.3	10	B6K0249	11/07/2016	11/08/16 11:35	
Endrin aldehyde	ND	20	2.8	10	B6K0249	11/07/2016	11/08/16 11:35	
Endrin ketone	ND	20	2.0	10	B6K0249	11/07/2016	11/08/16 11:35	
gamma-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 11:35	
gamma-Chlordane	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 11:35	
Heptachlor	ND	10	1.9	10	B6K0249	11/07/2016	11/08/16 11:35	
Heptachlor epoxide	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 11:35	
Methoxychlor	ND	50	1.8	10	B6K0249	11/07/2016	11/08/16 11:35	
Toxaphene	ND	500	82	10	B6K0249	11/07/2016	11/08/16 11:35	
Surrogate: Decachlorobiphenyl	41.0 %		27 - 123		B6K0249	11/07/2016	11/08/16 11:35	
Surrogate: Tetrachloro-m-xylene	38.2 %		26 - 108		B6K0249	11/07/2016	11/08/16 11:35	



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Client Sample ID Composite F11

Lab ID: 1603852-11

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 11:45	
4,4'-DDE	ND	20	2.0	10	B6K0249	11/07/2016	11/08/16 11:45	
4,4'-DDT	ND	20	1.3	10	B6K0249	11/07/2016	11/08/16 11:45	
Aldrin	ND	10	2.7	10	B6K0249	11/07/2016	11/08/16 11:45	
alpha-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 11:45	
alpha-Chlordane	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 11:45	
beta-BHC	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 11:45	
Chlordane	ND	85	9.0	10	B6K0249	11/07/2016	11/08/16 11:45	
delta-BHC	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 11:45	
Dieldrin	ND	20	2.5	10	B6K0249	11/07/2016	11/08/16 11:45	
Endosulfan I	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 11:45	
Endosulfan II	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 11:45	
Endosulfan sulfate	ND	20	2.1	10	B6K0249	11/07/2016	11/08/16 11:45	
Endrin	ND	20	2.3	10	B6K0249	11/07/2016	11/08/16 11:45	
Endrin aldehyde	ND	20	2.8	10	B6K0249	11/07/2016	11/08/16 11:45	
Endrin ketone	ND	20	2.0	10	B6K0249	11/07/2016	11/08/16 11:45	
gamma-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 11:45	
gamma-Chlordane	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 11:45	
Heptachlor	ND	10	1.9	10	B6K0249	11/07/2016	11/08/16 11:45	
Heptachlor epoxide	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 11:45	
Methoxychlor	ND	50	1.8	10	B6K0249	11/07/2016	11/08/16 11:45	
Toxaphene	ND	500	82	10	B6K0249	11/07/2016	11/08/16 11:45	
Surrogate: Decachlorobiphenyl	49.1 %		27 - 123		B6K0249	11/07/2016	11/08/16 11:45	
Surrogate: Tetrachloro-m-xylene	27.1 %		26 - 108		B6K0249	11/07/2016	11/08/16 11:45	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F12

Lab ID: 1603852-12

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:02	
4,4'-DDE	0.80	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:02	J
4,4'-DDT	ND	2.0	0.13	1	B6K0188	11/04/2016	11/08/16 18:02	
Aldrin	ND	1.0	0.27	1	B6K0188	11/04/2016	11/08/16 18:02	
alpha-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:02	
alpha-Chlordane	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:02	
beta-BHC	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:02	
Chlordane	ND	8.5	0.90	1	B6K0188	11/04/2016	11/08/16 18:02	
delta-BHC	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:02	
Dieldrin	1.0	2.0	0.25	1	B6K0188	11/04/2016	11/08/16 18:02	J
Endosulfan I	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:02	
Endosulfan II	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:02	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:02	
Endrin	ND	2.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:02	
Endrin aldehyde	ND	2.0	0.28	1	B6K0188	11/04/2016	11/08/16 18:02	
Endrin ketone	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:02	
gamma-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:02	
gamma-Chlordane	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:02	
Heptachlor	ND	1.0	0.19	1	B6K0188	11/04/2016	11/08/16 18:02	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:02	
Methoxychlor	ND	5.0	0.18	1	B6K0188	11/04/2016	11/08/16 18:02	
Toxaphene	ND	50	8.2	1	B6K0188	11/04/2016	11/08/16 18:02	
<i>Surrogate: Decachlorobiphenyl</i>	<i>72.3 %</i>		<i>27 - 123</i>		B6K0188	11/04/2016	<i>11/08/16 18:02</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>80.2 %</i>		<i>26 - 108</i>		B6K0188	11/04/2016	<i>11/08/16 18:02</i>	



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Client Sample ID Composite F13

Lab ID: 1603852-13

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:14	
4,4'-DDE	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:14	
4,4'-DDT	ND	2.0	0.13	1	B6K0188	11/04/2016	11/08/16 18:14	
Aldrin	ND	1.0	0.27	1	B6K0188	11/04/2016	11/08/16 18:14	
alpha-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:14	
alpha-Chlordane	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:14	
beta-BHC	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:14	
Chlordane	ND	8.5	0.90	1	B6K0188	11/04/2016	11/08/16 18:14	
delta-BHC	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:14	
Dieldrin	ND	2.0	0.25	1	B6K0188	11/04/2016	11/08/16 18:14	
Endosulfan I	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:14	
Endosulfan II	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:14	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:14	
Endrin	ND	2.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:14	
Endrin aldehyde	ND	2.0	0.28	1	B6K0188	11/04/2016	11/08/16 18:14	
Endrin ketone	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:14	
gamma-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:14	
gamma-Chlordane	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:14	
Heptachlor	ND	1.0	0.19	1	B6K0188	11/04/2016	11/08/16 18:14	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:14	
Methoxychlor	ND	5.0	0.18	1	B6K0188	11/04/2016	11/08/16 18:14	
Toxaphene	ND	50	8.2	1	B6K0188	11/04/2016	11/08/16 18:14	
Surrogate: Decachlorobiphenyl	55.8 %		27 - 123		B6K0188	11/04/2016	11/08/16 18:14	
Surrogate: Tetrachloro-m-xylene	68.4 %		26 - 108		B6K0188	11/04/2016	11/08/16 18:14	



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Client Sample ID Composite F13

Lab ID: 1603852-13

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1221	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1232	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1242	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1248	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1254	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1260	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1262	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Aroclor 1268	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:13	
Surrogate: Decachlorobiphenyl	90.8 %		26 - 137		B6K0188	11/04/2016	11/08/16 21:13	
Surrogate: Tetrachloro-m-xylene	93.0 %		28 - 102		B6K0188	11/04/2016	11/08/16 21:13	



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Reported : 11/09/2016

Client Sample ID Composite F14

Lab ID: 1603852-14

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	5.0	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 11:55	
4,4'-DDE	400	20	2.0	10	B6K0249	11/07/2016	11/08/16 13:44	
4,4'-DDT [2C]	18	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 11:55	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 11:55	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 11:55	
alpha-Chlordane	30	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 11:55	
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 11:55	
Chlordane	270	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 11:55	
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 11:55	
Dieldrin [2C]	6.7	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 11:55	
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 11:55	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 11:55	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 11:55	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 11:55	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 11:55	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 11:55	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 11:55	
gamma-Chlordane	30	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 11:55	
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 11:55	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 11:55	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 11:55	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 11:55	
<i>Surrogate: Decachlorobiphenyl</i>	<i>67.7 %</i>	<i>27 - 123</i>			B6K0249	11/07/2016	<i>11/08/16 13:44</i>	
<i>Surrogate: Decachlorobiphenyl</i>	<i>55.8 %</i>	<i>27 - 123</i>			B6K0249	11/07/2016	<i>11/08/16 11:55</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>59.5 %</i>	<i>26 - 108</i>			B6K0249	11/07/2016	<i>11/08/16 13:44</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>50.7 %</i>	<i>26 - 108</i>			B6K0249	11/07/2016	<i>11/08/16 11:55</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000
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Reported : 11/09/2016

Client Sample ID Composite F15

Lab ID: 1603852-15

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:06	
4,4'-DDE [2C]	1.1	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:06	J
4,4'-DDT	ND	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 12:06	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 12:06	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:06	
alpha-Chlordane	1.2	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:06	
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:06	
Chlordane	13	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 12:06	
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:06	
Dieldrin	1.3	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 12:06	J
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:06	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:06	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:06	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:06	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 12:06	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:06	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:06	
gamma-Chlordane	1.2	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:06	
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 12:06	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:06	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 12:06	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 12:06	
<i>Surrogate: Decachlorobiphenyl</i>	<i>58.1 %</i>		<i>27 - 123</i>		B6K0249	11/07/2016	<i>11/08/16 12:06</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>95.2 %</i>		<i>26 - 108</i>		B6K0249	11/07/2016	<i>11/08/16 12:06</i>	



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Client Sample ID Composite F16

Lab ID: 1603852-16

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:16	
4,4'-DDE	0.73	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:16	J
4,4'-DDT [2C]	3.8	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 12:16	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 12:16	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:16	
alpha-Chlordane	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:16	
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:16	
Chlordane	ND	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 12:16	
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:16	
Dieldrin	2.6	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 12:16	
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:16	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:16	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:16	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:16	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 12:16	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:16	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:16	
gamma-Chlordane	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:16	
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 12:16	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:16	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 12:16	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 12:16	
<i>Surrogate: Decachlorobiphenyl</i>	<i>63.6 %</i>		<i>27 - 123</i>		B6K0249	11/07/2016	<i>11/08/16 12:16</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>60.0 %</i>		<i>26 - 108</i>		B6K0249	11/07/2016	<i>11/08/16 12:16</i>	



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Client Sample ID Composite F17

Lab ID: 1603852-17

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:27	
4,4'-DDE	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:27	
4,4'-DDT	ND	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 12:27	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 12:27	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:27	
alpha-Chlordane	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:27	
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:27	
Chlordane	ND	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 12:27	
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:27	
Dieldrin	ND	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 12:27	
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:27	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:27	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:27	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:27	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 12:27	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:27	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:27	
gamma-Chlordane	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:27	
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 12:27	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:27	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 12:27	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 12:27	
Surrogate: Decachlorobiphenyl	53.3 %		27 - 123		B6K0249	11/07/2016	11/08/16 12:27	
Surrogate: Tetrachloro-m-xylene	54.9 %		26 - 108		B6K0249	11/07/2016	11/08/16 12:27	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F18

Lab ID: 1603852-18

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:26	
4,4'-DDE	0.77	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:26	J
4,4'-DDT	ND	2.0	0.13	1	B6K0188	11/04/2016	11/08/16 18:26	
Aldrin	ND	1.0	0.27	1	B6K0188	11/04/2016	11/08/16 18:26	
alpha-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:26	
alpha-Chlordane [2C]	1.8	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:26	
beta-BHC	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:26	
Chlordane [2C]	21	8.5	0.90	1	B6K0188	11/04/2016	11/08/16 18:26	
delta-BHC	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:26	
Dieldrin	7.3	2.0	0.25	1	B6K0188	11/04/2016	11/08/16 18:26	
Endosulfan I	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:26	
Endosulfan II	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:26	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:26	
Endrin	ND	2.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:26	
Endrin aldehyde	ND	2.0	0.28	1	B6K0188	11/04/2016	11/08/16 18:26	
Endrin ketone	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:26	
gamma-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:26	
gamma-Chlordane	1.4	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:26	
Heptachlor	ND	1.0	0.19	1	B6K0188	11/04/2016	11/08/16 18:26	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:26	
Methoxychlor	ND	5.0	0.18	1	B6K0188	11/04/2016	11/08/16 18:26	
Toxaphene	ND	50	8.2	1	B6K0188	11/04/2016	11/08/16 18:26	
<i>Surrogate: Decachlorobiphenyl</i>	<i>60.2 %</i>		<i>27 - 123</i>		B6K0188	11/04/2016	<i>11/08/16 18:26</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>75.7 %</i>		<i>26 - 108</i>		B6K0188	11/04/2016	<i>11/08/16 18:26</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.0000

Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F18

Lab ID: 1603852-18

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1221	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1232	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1242	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1248	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1254	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1260	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1262	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Aroclor 1268	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:32	
Surrogate: Decachlorobiphenyl	107 %		26 - 137		B6K0188	11/04/2016	11/08/16 21:32	
Surrogate: Tetrachloro-m-xylene	102 %		28 - 102		B6K0188	11/04/2016	11/08/16 21:32	S12



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Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F19

Lab ID: 1603852-19

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:37	
4,4'-DDE [2C]	0.54	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:37	J
4,4'-DDT	ND	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 12:37	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 12:37	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:37	
alpha-Chlordane	0.46	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:37	J
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:37	
Chlordane [2C]	5.0	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 12:37	J
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:37	
Dieldrin	ND	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 12:37	
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:37	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:37	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:37	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:37	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 12:37	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:37	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:37	
gamma-Chlordane	0.30	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:37	J
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 12:37	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:37	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 12:37	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 12:37	
<i>Surrogate: Decachlorobiphenyl</i>	<i>64.3 %</i>		<i>27 - 123</i>		B6K0249	11/07/2016	<i>11/08/16 12:37</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>61.9 %</i>		<i>26 - 108</i>		B6K0249	11/07/2016	<i>11/08/16 12:37</i>	



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Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F20

Lab ID: 1603852-20

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 12:48	
4,4'-DDE	4.6	20	2.0	10	B6K0249	11/07/2016	11/08/16 12:48	J
4,4'-DDT	ND	20	1.3	10	B6K0249	11/07/2016	11/08/16 12:48	
Aldrin	ND	10	2.7	10	B6K0249	11/07/2016	11/08/16 12:48	
alpha-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 12:48	
alpha-Chlordane	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 12:48	
beta-BHC	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 12:48	
Chlordane	ND	85	9.0	10	B6K0249	11/07/2016	11/08/16 12:48	
delta-BHC	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 12:48	
Dieldrin	ND	20	2.5	10	B6K0249	11/07/2016	11/08/16 12:48	
Endosulfan I	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 12:48	
Endosulfan II	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 12:48	
Endosulfan sulfate	ND	20	2.1	10	B6K0249	11/07/2016	11/08/16 12:48	
Endrin	ND	20	2.3	10	B6K0249	11/07/2016	11/08/16 12:48	
Endrin aldehyde	ND	20	2.8	10	B6K0249	11/07/2016	11/08/16 12:48	
Endrin ketone	ND	20	2.0	10	B6K0249	11/07/2016	11/08/16 12:48	
gamma-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 12:48	
gamma-Chlordane	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 12:48	
Heptachlor	ND	10	1.9	10	B6K0249	11/07/2016	11/08/16 12:48	
Heptachlor epoxide	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 12:48	
Methoxychlor	ND	50	1.8	10	B6K0249	11/07/2016	11/08/16 12:48	
Toxaphene	ND	500	82	10	B6K0249	11/07/2016	11/08/16 12:48	
<i>Surrogate: Decachlorobiphenyl</i>	<i>32.4 %</i>		<i>27 - 123</i>		B6K0249	11/07/2016	<i>11/08/16 12:48</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>37.3 %</i>		<i>26 - 108</i>		B6K0249	11/07/2016	<i>11/08/16 12:48</i>	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F21

Lab ID: 1603852-21

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	0.30	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:58	J
4,4'-DDE	2.4	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:58	
4,4'-DDT	3.8	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 12:58	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 12:58	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:58	
alpha-Chlordane	0.90	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:58	J
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:58	
Chlordane	13	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 12:58	
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:58	
Dieldrin	0.58	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 12:58	J
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:58	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 12:58	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 12:58	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:58	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 12:58	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:58	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:58	
gamma-Chlordane	0.82	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 12:58	J
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 12:58	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 12:58	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 12:58	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 12:58	
<i>Surrogate: Decachlorobiphenyl</i>	<i>74.3 %</i>		<i>27 - 123</i>		B6K0249	11/07/2016	<i>11/08/16 12:58</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>65.8 %</i>		<i>26 - 108</i>		B6K0249	11/07/2016	<i>11/08/16 12:58</i>	



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Report To : John Nordenstam

Reported : 11/09/2016

Client Sample ID Composite F22

Lab ID: 1603852-22

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 13:09	
4,4'-DDE	1.7	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 13:09	J
4,4'-DDT	2.4	2.0	0.13	1	B6K0249	11/07/2016	11/08/16 13:09	
Aldrin	ND	1.0	0.27	1	B6K0249	11/07/2016	11/08/16 13:09	
alpha-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 13:09	
alpha-Chlordane	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 13:09	
beta-BHC	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 13:09	
Chlordane	ND	8.5	0.90	1	B6K0249	11/07/2016	11/08/16 13:09	
delta-BHC	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 13:09	
Dieldrin	ND	2.0	0.25	1	B6K0249	11/07/2016	11/08/16 13:09	
Endosulfan I	ND	1.0	0.21	1	B6K0249	11/07/2016	11/08/16 13:09	
Endosulfan II	ND	2.0	0.22	1	B6K0249	11/07/2016	11/08/16 13:09	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0249	11/07/2016	11/08/16 13:09	
Endrin	ND	2.0	0.23	1	B6K0249	11/07/2016	11/08/16 13:09	
Endrin aldehyde	ND	2.0	0.28	1	B6K0249	11/07/2016	11/08/16 13:09	
Endrin ketone	ND	2.0	0.20	1	B6K0249	11/07/2016	11/08/16 13:09	
gamma-BHC	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 13:09	
gamma-Chlordane	ND	1.0	0.23	1	B6K0249	11/07/2016	11/08/16 13:09	
Heptachlor	ND	1.0	0.19	1	B6K0249	11/07/2016	11/08/16 13:09	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0249	11/07/2016	11/08/16 13:09	
Methoxychlor	ND	5.0	0.18	1	B6K0249	11/07/2016	11/08/16 13:09	
Toxaphene	ND	50	8.2	1	B6K0249	11/07/2016	11/08/16 13:09	
Surrogate: Decachlorobiphenyl	49.5 %		27 - 123		B6K0249	11/07/2016	11/08/16 13:09	
Surrogate: Tetrachloro-m-xylene	46.2 %		26 - 108		B6K0249	11/07/2016	11/08/16 13:09	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F10 (Duplicate)

Lab ID: 1603852-23

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 13:19	
4,4'-DDE	ND	20	2.0	10	B6K0249	11/07/2016	11/08/16 13:19	
4,4'-DDT	ND	20	1.3	10	B6K0249	11/07/2016	11/08/16 13:19	
Aldrin	ND	10	2.7	10	B6K0249	11/07/2016	11/08/16 13:19	
alpha-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 13:19	
alpha-Chlordane	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 13:19	
beta-BHC	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 13:19	
Chlordane	ND	85	9.0	10	B6K0249	11/07/2016	11/08/16 13:19	
delta-BHC	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 13:19	
Dieldrin	ND	20	2.5	10	B6K0249	11/07/2016	11/08/16 13:19	
Endosulfan I	ND	10	2.1	10	B6K0249	11/07/2016	11/08/16 13:19	
Endosulfan II	ND	20	2.2	10	B6K0249	11/07/2016	11/08/16 13:19	
Endosulfan sulfate	ND	20	2.1	10	B6K0249	11/07/2016	11/08/16 13:19	
Endrin	ND	20	2.3	10	B6K0249	11/07/2016	11/08/16 13:19	
Endrin aldehyde	ND	20	2.8	10	B6K0249	11/07/2016	11/08/16 13:19	
Endrin ketone	ND	20	2.0	10	B6K0249	11/07/2016	11/08/16 13:19	
gamma-BHC	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 13:19	
gamma-Chlordane	ND	10	2.3	10	B6K0249	11/07/2016	11/08/16 13:19	
Heptachlor	ND	10	1.9	10	B6K0249	11/07/2016	11/08/16 13:19	
Heptachlor epoxide	ND	10	2.0	10	B6K0249	11/07/2016	11/08/16 13:19	
Methoxychlor	ND	50	1.8	10	B6K0249	11/07/2016	11/08/16 13:19	
Toxaphene	ND	500	82	10	B6K0249	11/07/2016	11/08/16 13:19	
Surrogate: Decachlorobiphenyl	37.0 %		27 - 123		B6K0249	11/07/2016	11/08/16 13:19	
Surrogate: Tetrachloro-m-xylene	34.8 %		26 - 108		B6K0249	11/07/2016	11/08/16 13:19	



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Project Number : LAUSD Roosevelt HS PEA, 265642.000C
Report To : John Nordenstam
Reported : 11/09/2016

Client Sample ID Composite F18 (Duplicate) Lab ID: 1603852-24

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:38	
4,4'-DDE	0.65	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:38	J
4,4'-DDT	ND	2.0	0.13	1	B6K0188	11/04/2016	11/08/16 18:38	
Aldrin	ND	1.0	0.27	1	B6K0188	11/04/2016	11/08/16 18:38	
alpha-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:38	
alpha-Chlordane [2C]	1.8	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:38	
beta-BHC	ND	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:38	
Chlordane [2C]	22	8.5	0.90	1	B6K0188	11/04/2016	11/08/16 18:38	
delta-BHC	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:38	
Dieldrin	6.5	2.0	0.25	1	B6K0188	11/04/2016	11/08/16 18:38	
Endosulfan I	ND	1.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:38	
Endosulfan II	ND	2.0	0.22	1	B6K0188	11/04/2016	11/08/16 18:38	
Endosulfan sulfate	ND	2.0	0.21	1	B6K0188	11/04/2016	11/08/16 18:38	
Endrin	ND	2.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:38	
Endrin aldehyde	ND	2.0	0.28	1	B6K0188	11/04/2016	11/08/16 18:38	
Endrin ketone	ND	2.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:38	
gamma-BHC	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:38	
gamma-Chlordane	1.5	1.0	0.23	1	B6K0188	11/04/2016	11/08/16 18:38	
Heptachlor	ND	1.0	0.19	1	B6K0188	11/04/2016	11/08/16 18:38	
Heptachlor epoxide	ND	1.0	0.20	1	B6K0188	11/04/2016	11/08/16 18:38	
Methoxychlor	ND	5.0	0.18	1	B6K0188	11/04/2016	11/08/16 18:38	
Toxaphene	ND	50	8.2	1	B6K0188	11/04/2016	11/08/16 18:38	
<i>Surrogate: Decachlorobiphenyl</i>	<i>61.3 %</i>		<i>27 - 123</i>		B6K0188	11/04/2016	<i>11/08/16 18:38</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>74.6 %</i>		<i>26 - 108</i>		B6K0188	11/04/2016	<i>11/08/16 18:38</i>	



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Client Sample ID Composite F18 (Duplicate)

Lab ID: 1603852-24

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1221	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1232	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1242	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1248	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1254	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1260	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1262	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Aroclor 1268	ND	16	1.5	1	B6K0188	11/04/2016	11/08/16 21:51	
Surrogate: Decachlorobiphenyl	101 %		26 - 137		B6K0188	11/04/2016	11/08/16 21:51	
Surrogate: Tetrachloro-m-xylene	96.3 %		28 - 102		B6K0188	11/04/2016	11/08/16 21:51	



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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0188 - GCSEMI_PCB/PEST_S

Blank (B6K0188-BLK1)

Prepared: 11/4/2016 Analyzed: 11/8/2016

4,4'-DDD	ND	2.0		NR
4,4'-DDD [2C]	ND	2.0		NR
4,4'-DDE	ND	2.0		NR
4,4'-DDE [2C]	ND	2.0		NR
4,4'-DDT	ND	2.0		NR
4,4'-DDT [2C]	ND	2.0		NR
Aldrin	ND	1.0		NR
Aldrin [2C]	ND	1.0		NR
alpha-BHC	ND	1.0		NR
alpha-BHC [2C]	ND	1.0		NR
alpha-Chlordane	ND	1.0		NR
alpha-Chlordane [2C]	ND	1.0		NR
beta-BHC	ND	1.0		NR
beta-BHC [2C]	ND	1.0		NR
Chlordane	ND	8.5		NR
Chlordane [2C]	ND	8.5		NR
delta-BHC	ND	1.0		NR
delta-BHC [2C]	ND	1.0		NR
Dieldrin	ND	2.0		NR
Dieldrin [2C]	ND	2.0		NR
Endosulfan I	ND	1.0		NR
Endosulfan I [2C]	ND	1.0		NR
Endosulfan II	ND	2.0		NR
Endosulfan II [2C]	ND	2.0		NR
Endosulfan sulfate	ND	2.0		NR
Endosulfan Sulfate [2C]	ND	2.0		NR
Endrin	ND	2.0		NR
Endrin [2C]	ND	2.0		NR
Endrin aldehyde	ND	2.0		NR
Endrin aldehyde [2C]	ND	2.0		NR
Endrin ketone	ND	2.0		NR
Endrin ketone [2C]	ND	2.0		NR
gamma-BHC	ND	1.0		NR
gamma-BHC [2C]	ND	1.0		NR
gamma-Chlordane	ND	1.0		NR
gamma-Chlordane [2C]	ND	1.0		NR
Heptachlor	ND	1.0		NR
Heptachlor [2C]	ND	1.0		NR
Heptachlor epoxide	ND	1.0		NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0188 - GCSEMI_PCB/PEST_S (continued)

Blank (B6K0188-BLK1) - Continued

Prepared: 11/4/2016 Analyzed: 11/8/2016

Heptachlor epoxide [2C]	ND	1.0			NR			
Methoxychlor	ND	5.0			NR			
Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>11.10</i>		<i>16.6667</i>		<i>66.6</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>9.822</i>		<i>16.6667</i>		<i>58.9</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.47</i>		<i>16.6667</i>		<i>80.8</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>10.61</i>		<i>16.6667</i>		<i>63.7</i>	<i>26 - 108</i>		

LCS (B6K0188-BS1)

Prepared: 11/4/2016 Analyzed: 11/8/2016

4,4'-DDD	17.0772	2.0			NR	53 - 125		
4,4'-DDD [2C]	19.1062	2.0			NR	53 - 125		
4,4'-DDE	15.4652	2.0			NR	54 - 113		
4,4'-DDE [2C]	13.4412	2.0			NR	54 - 113		
4,4'-DDT	6.78450	2.0			NR	25 - 127		
4,4'-DDT [2C]	6.54550	2.0			NR	25 - 127		
Aldrin	14.0482	1.0			NR	59 - 107		
Aldrin [2C]	13.6493	1.0			NR	59 - 107		
alpha-BHC	13.0472	1.0			NR	59 - 104		
alpha-BHC [2C]	12.6147	1.0			NR	59 - 104		
alpha-Chlordane	13.7940	1.0			NR	54 - 110		
alpha-Chlordane [2C]	13.3197	1.0			NR	54 - 110		
beta-BHC	14.1558	1.0			NR	57 - 103		
beta-BHC [2C]	12.9938	1.0			NR	57 - 103		
delta-BHC	6.32500	1.0			NR	16 - 120		
delta-BHC [2C]	6.30067	1.0			NR	16 - 120		
Dieldrin	15.1927	2.0			NR	61 - 109		
Dieldrin [2C]	13.8252	2.0			NR	61 - 109		
Endosulfan I	13.2548	1.0			NR	60 - 106		
Endosulfan I [2C]	13.2238	1.0			NR	60 - 106		
Endosulfan II	13.3340	2.0			NR	59 - 108		
Endosulfan II [2C]	12.9037	2.0			NR	59 - 108		
Endosulfan sulfate	10.5358	2.0			NR	54 - 110		
Endosulfan Sulfate [2C]	10.2147	2.0			NR	54 - 110		
Endrin	14.2615	2.0			NR	63 - 112		
Endrin [2C]	14.4197	2.0			NR	63 - 112		
Endrin aldehyde	13.6022	2.0			NR	64 - 119		
Endrin aldehyde [2C]	13.7925	2.0			NR	64 - 119		
Endrin ketone	11.2965	2.0			NR	54 - 115		
Endrin ketone [2C]	9.86367	2.0			NR	54 - 115		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0188 - GCSEMI_PCB/PEST_S (continued)

LCS (B6K0188-BS1) - Continued

Prepared: 11/4/2016 Analyzed: 11/8/2016

gamma-BHC	13.9645	1.0			NR	60 - 107			
gamma-BHC [2C]	13.4837	1.0			NR	60 - 107			
gamma-Chlordane	14.2492	1.0			NR	57 - 106			
gamma-Chlordane [2C]	13.1768	1.0			NR	57 - 106			
Heptachlor	13.3075	1.0			NR	54 - 114			
Heptachlor [2C]	12.3887	1.0			NR	54 - 114			
Heptachlor epoxide	14.3218	1.0			NR	61 - 106			
Heptachlor epoxide [2C]	13.5875	1.0			NR	61 - 106			
Methoxychlor	7.44067	5.0			NR	18 - 138			
Methoxychlor [2C]	8.47317	5.0			NR	18 - 138			
Surrogate: Decachlorobiphenyl	11.39		16.6667		68.4	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	10.62		16.6667		63.7	27 - 123			
Surrogate: Tetrachloro-m-xylene	14.58		16.6667		87.5	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	11.04		16.6667		66.3	26 - 108			

Duplicate (B6K0188-DUP1)

Source: 1603852-12

Prepared: 11/4/2016 Analyzed: 11/8/2016

4,4'-DDD	ND	2.0		ND	NR			20	
4,4'-DDD [2C]	ND	2.0		ND	NR			20	
4,4'-DDE	0.610500	2.0		0.801333	NR		27.0	20	R3, J
4,4'-DDE [2C]	0.512500	2.0		0.620167	NR		19.0	20	J
4,4'-DDT	ND	2.0		ND	NR			20	
4,4'-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	1.19833	2.0		1.04183	NR		14.0	20	J
Dieldrin [2C]	0.937667	2.0		0.765000	NR		20.3	20	R3, J
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6K0188 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6K0188-DUP1) - Continued

Source: 1603852-12

Prepared: 11/4/2016 Analyzed: 11/8/2016

Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	11.06	16.6667		66.4	27 - 123
Surrogate: Decachlorobiphenyl [2C]	7.985	16.6667		47.9	27 - 123
Surrogate: Tetrachloro-m-xylene	11.92	16.6667		71.5	26 - 108
Surrogate: Tetrachloro-m-xylene [2C]	10.15	16.6667		60.9	26 - 108

Matrix Spike (B6K0188-MS1)

Source: 1603852-04

Prepared: 11/4/2016 Analyzed: 11/8/2016

4,4'-DDD	12.2192	2.0		ND	NR	25 - 141
4,4'-DDD [2C]	11.5340	2.0		ND	NR	25 - 141
4,4'-DDE	12.5662	2.0		ND	NR	22 - 141
4,4'-DDE [2C]	9.78783	2.0		ND	NR	22 - 141
4,4'-DDT	8.24383	2.0		ND	NR	15 - 136
4,4'-DDT [2C]	7.14100	2.0		ND	NR	15 - 136
Aldrin	11.5623	1.0		ND	NR	33 - 118
Aldrin [2C]	9.59500	1.0		ND	NR	33 - 118
alpha-BHC	11.3202	1.0		ND	NR	30 - 116
alpha-BHC [2C]	9.44783	1.0		ND	NR	30 - 116
alpha-Chlordane	11.1735	1.0		ND	NR	30 - 123
alpha-Chlordane [2C]	9.50833	1.0		ND	NR	30 - 123
beta-BHC	10.2253	1.0		ND	NR	24 - 121
beta-BHC [2C]	8.40633	1.0		ND	NR	24 - 121
delta-BHC	4.65333	1.0		ND	NR	7 - 120
delta-BHC [2C]	4.01650	1.0		ND	NR	7 - 120
Dieldrin	28.3693	2.0		13.4568	NR	25 - 136
Dieldrin [2C]	22.7065	2.0		11.0277	NR	25 - 136
Endosulfan I	10.6668	1.0		ND	NR	18 - 134
Endosulfan I [2C]	9.58133	1.0		ND	NR	18 - 134



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6K0188 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6K0188-MS1) - Continued

Source: 1603852-04

Prepared: 11/4/2016 Analyzed: 11/8/2016

Endosulfan II	10.8272	2.0		ND	NR	28 - 128			
Endosulfan II [2C]	8.37683	2.0		ND	NR	28 - 128			
Endosulfan sulfate	8.34683	2.0		ND	NR	5 - 145			
Endosulfan Sulfate [2C]	7.14817	2.0		ND	NR	5 - 145			
Endrin	12.0132	2.0		ND	NR	26 - 142			
Endrin [2C]	10.1863	2.0		ND	NR	26 - 142			
Endrin aldehyde	8.94167	2.0		ND	NR	8 - 146			
Endrin aldehyde [2C]	7.43167	2.0		ND	NR	8 - 146			
Endrin ketone	10.4143	2.0		ND	NR	16 - 139			
Endrin ketone [2C]	8.50867	2.0		ND	NR	16 - 139			
gamma-BHC	12.3493	1.0		ND	NR	30 - 122			
gamma-BHC [2C]	10.7005	1.0		ND	NR	30 - 122			
gamma-Chlordane	11.6137	1.0		ND	NR	18 - 132			
gamma-Chlordane [2C]	9.52000	1.0		ND	NR	18 - 132			
Heptachlor	11.5495	1.0		ND	NR	34 - 122			
Heptachlor [2C]	9.77300	1.0		ND	NR	34 - 122			
Heptachlor epoxide	11.4277	1.0		ND	NR	21 - 135			
Heptachlor epoxide [2C]	9.77017	1.0		ND	NR	21 - 135			
Methoxychlor	8.59150	5.0		ND	NR	8 - 162			
Methoxychlor [2C]	7.99267	5.0		ND	NR	8 - 162			
Surrogate: Decachlorobiphenyl	10.36		16.6667		62.2	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	8.775		16.6667		52.7	27 - 123			
Surrogate: Tetrachloro-m-xylene	11.81		16.6667		70.9	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	8.938		16.6667		53.6	26 - 108			

Matrix Spike Dup (B6K0188-MSD1)

Source: 1603852-04

Prepared: 11/4/2016 Analyzed: 11/8/2016

4,4'-DDD	12.2775	2.0		ND	NR	25 - 141	0.476	20	
4,4'-DDD [2C]	11.1027	2.0		ND	NR	25 - 141	3.81	20	
4,4'-DDE	12.3752	2.0		ND	NR	22 - 141	1.53	20	
4,4'-DDE [2C]	9.51017	2.0		ND	NR	22 - 141	2.88	20	
4,4'-DDT	7.95183	2.0		ND	NR	15 - 136	3.61	20	
4,4'-DDT [2C]	6.88917	2.0		ND	NR	15 - 136	3.59	20	
Aldrin	11.6013	1.0		ND	NR	33 - 118	0.337	20	
Aldrin [2C]	9.24517	1.0		ND	NR	33 - 118	3.71	20	
alpha-BHC	11.1808	1.0		ND	NR	30 - 116	1.24	20	
alpha-BHC [2C]	9.68367	1.0		ND	NR	30 - 116	2.47	20	
alpha-Chlordane	10.8835	1.0		ND	NR	30 - 123	2.63	20	
alpha-Chlordane [2C]	9.05000	1.0		ND	NR	30 - 123	4.94	20	
beta-BHC	10.0482	1.0		ND	NR	24 - 121	1.75	20	
beta-BHC [2C]	7.40750	1.0		ND	NR	24 - 121	12.6	20	
delta-BHC	4.66133	1.0		ND	NR	7 - 120	0.172	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0188 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6K0188-MSD1) - Continued

Source: 1603852-04

Prepared: 11/4/2016 Analyzed: 11/8/2016

delta-BHC [2C]	3.79467	1.0		ND	NR	7 - 120	5.68	20	
Dieldrin	31.0045	2.0		13.4568	NR	25 - 136	8.88	20	
Dieldrin [2C]	24.6448	2.0		11.0277	NR	25 - 136	8.19	20	
Endosulfan I	10.4167	1.0		ND	NR	18 - 134	2.37	20	
Endosulfan I [2C]	9.23517	1.0		ND	NR	18 - 134	3.68	20	
Endosulfan II	10.3742	2.0		ND	NR	28 - 128	4.27	20	
Endosulfan II [2C]	8.01983	2.0		ND	NR	28 - 128	4.35	20	
Endosulfan sulfate	8.46883	2.0		ND	NR	5 - 145	1.45	20	
Endosulfan Sulfate [2C]	6.90933	2.0		ND	NR	5 - 145	3.40	20	
Endrin	12.1457	2.0		ND	NR	26 - 142	1.10	20	
Endrin [2C]	9.93700	2.0		ND	NR	26 - 142	2.48	20	
Endrin aldehyde	8.03717	2.0		ND	NR	8 - 146	10.7	20	
Endrin aldehyde [2C]	6.93467	2.0		ND	NR	8 - 146	6.92	20	
Endrin ketone	11.9492	2.0		ND	NR	16 - 139	13.7	20	
Endrin ketone [2C]	8.47383	2.0		ND	NR	16 - 139	0.410	20	
gamma-BHC	12.0532	1.0		ND	NR	30 - 122	2.43	20	
gamma-BHC [2C]	10.3450	1.0		ND	NR	30 - 122	3.38	20	
gamma-Chlordane	11.2360	1.0		ND	NR	18 - 132	3.31	20	
gamma-Chlordane [2C]	9.00750	1.0		ND	NR	18 - 132	5.53	20	
Heptachlor	11.8703	1.0		ND	NR	34 - 122	2.74	20	
Heptachlor [2C]	9.46667	1.0		ND	NR	34 - 122	3.18	20	
Heptachlor epoxide	11.3673	1.0		ND	NR	21 - 135	0.529	20	
Heptachlor epoxide [2C]	9.48817	1.0		ND	NR	21 - 135	2.93	20	
Methoxychlor	8.65567	5.0		ND	NR	8 - 162	0.744	20	
Methoxychlor [2C]	8.32000	5.0		ND	NR	8 - 162	4.01	20	
Surrogate: Decachlorobiphenyl	11.43		16.6667		68.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	8.797		16.6667		52.8	27 - 123			
Surrogate: Tetrachloro-m-xylene	11.71		16.6667		70.3	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	9.814		16.6667		58.9	26 - 108			



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Reported : 11/09/2016

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B6K0249 - GCSEMI_PCB/PEST_S

Blank (B6K0249-BLK1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0249 - GCSEMI_PCB/PEST_S (continued)

Blank (B6K0249-BLK1) - Continued

Prepared: 11/7/2016 Analyzed: 11/8/2016

Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>15.12</i>		<i>16.6667</i>		<i>90.7</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>15.73</i>		<i>16.6667</i>		<i>94.4</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.46</i>		<i>16.6667</i>		<i>86.8</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>14.83</i>		<i>16.6667</i>		<i>89.0</i>	<i>26 - 108</i>		

LCS (B6K0249-BS1)

Prepared: 11/7/2016 Analyzed: 11/8/2016

4,4'-DDD	11.3515	2.0	16.6667		68.1	53 - 125
4,4'-DDD [2C]	13.9152	2.0	16.6667		83.5	53 - 125
4,4'-DDE	12.8700	2.0	16.6667		77.2	54 - 113
4,4'-DDE [2C]	13.6278	2.0	16.6667		81.8	54 - 113
4,4'-DDT	10.3697	2.0	16.6667		62.2	25 - 127
4,4'-DDT [2C]	9.21900	2.0	16.6667		55.3	25 - 127
Aldrin	13.3932	1.0	16.6667		80.4	59 - 107
Aldrin [2C]	14.2253	1.0	16.6667		85.4	59 - 107
alpha-BHC	13.9565	1.0	16.6667		83.7	59 - 104
alpha-BHC [2C]	14.5253	1.0	16.6667		87.2	59 - 104
alpha-Chlordane	12.7857	1.0	16.6667		76.7	54 - 110
alpha-Chlordane [2C]	13.5277	1.0	16.6667		81.2	54 - 110
beta-BHC	12.9888	1.0	16.6667		77.9	57 - 103
beta-BHC [2C]	13.8118	1.0	16.6667		82.9	57 - 103
delta-BHC	13.6570	1.0	16.6667		81.9	16 - 120
delta-BHC [2C]	14.3695	1.0	16.6667		86.2	16 - 120
Dieldrin	12.9865	2.0	16.6667		77.9	61 - 109
Dieldrin [2C]	13.8568	2.0	16.6667		83.1	61 - 109
Endosulfan I	12.7875	1.0	16.6667		76.7	60 - 106
Endosulfan I [2C]	13.4590	1.0	16.6667		80.8	60 - 106
Endosulfan II	10.7882	2.0	16.6667		64.7	59 - 108
Endosulfan II [2C]	12.9692	2.0	16.6667		77.8	59 - 108
Endosulfan sulfate	11.8772	2.0	16.6667		71.3	54 - 110
Endosulfan Sulfate [2C]	11.4178	2.0	16.6667		68.5	54 - 110
Endrin	12.0775	2.0	16.6667		72.5	63 - 112
Endrin [2C]	13.8990	2.0	16.6667		83.4	63 - 112
Endrin aldehyde	11.8157	2.0	16.6667		70.9	64 - 119
Endrin aldehyde [2C]	13.2382	2.0	16.6667		79.4	64 - 119
Endrin ketone	11.1390	2.0	16.6667		66.8	54 - 115
Endrin ketone [2C]	10.0757	2.0	16.6667		60.5	54 - 115
gamma-BHC	14.6160	1.0	16.6667		87.7	60 - 107
gamma-BHC [2C]	14.7575	1.0	16.6667		88.5	60 - 107



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0249 - GCSEMI_PCB/PEST_S (continued)

LCS (B6K0249-BS1) - Continued

Prepared: 11/7/2016 Analyzed: 11/8/2016

gamma-Chlordane	12.6977	1.0	16.6667		76.2	57 - 106			
gamma-Chlordane [2C]	13.4867	1.0	16.6667		80.9	57 - 106			
Heptachlor	14.4062	1.0	16.6667		86.4	54 - 114			
Heptachlor [2C]	14.4565	1.0	16.6667		86.7	54 - 114			
Heptachlor epoxide	13.0732	1.0	16.6667		78.4	61 - 106			
Heptachlor epoxide [2C]	13.5995	1.0	16.6667		81.6	61 - 106			
Methoxychlor	9.80250	5.0	16.6667		58.8	18 - 138			
Methoxychlor [2C]	7.92767	5.0	16.6667		47.6	18 - 138			
<i>Surrogate: Decachlorobiphenyl</i>	<i>12.13</i>		<i>16.6667</i>		<i>72.8</i>	<i>27 - 123</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>12.59</i>		<i>16.6667</i>		<i>75.6</i>	<i>27 - 123</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.19</i>		<i>16.6667</i>		<i>85.2</i>	<i>26 - 108</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>14.71</i>		<i>16.6667</i>		<i>88.3</i>	<i>26 - 108</i>			

Duplicate (B6K0249-DUP1)

Source: 1603852-17

Prepared: 11/7/2016 Analyzed: 11/8/2016

4,4'-DDD	ND	2.0		ND	NR			20	
4,4'-DDD [2C]	ND	2.0		ND	NR			20	
4,4'-DDE	ND	2.0		ND	NR			20	
4,4'-DDE [2C]	ND	2.0		ND	NR			20	
4,4'-DDT	ND	2.0		ND	NR			20	
4,4'-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0249 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6K0249-DUP1) - Continued

Source: 1603852-17

Prepared: 11/7/2016 Analyzed: 11/8/2016

Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	7.927		16.6667		47.6	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	9.588		16.6667		57.5	27 - 123			
Surrogate: Tetrachloro-m-xylene	7.193		16.6667		43.2	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	7.575		16.6667		45.4	26 - 108			

Matrix Spike (B6K0249-MS3)

Source: 1603852-17

Prepared: 11/7/2016 Analyzed: 11/8/2016

4,4'-DDD	10.9830	2.0	16.6667	ND	65.9	25 - 141			
4,4'-DDD [2C]	11.7087	2.0	16.6667	ND	70.3	25 - 141			
4,4'-DDE	13.7382	2.0	16.6667	ND	82.4	22 - 141			
4,4'-DDE [2C]	11.5372	2.0	16.6667	ND	69.2	22 - 141			
4,4'-DDT	11.0662	2.0	16.6667	ND	66.4	15 - 136			
4,4'-DDT [2C]	9.54650	2.0	16.6667	ND	57.3	15 - 136			
Aldrin	10.2575	1.0	16.6667	ND	61.5	33 - 118			
Aldrin [2C]	11.7613	1.0	16.6667	ND	70.6	33 - 118			
alpha-BHC	9.58383	1.0	16.6667	ND	57.5	30 - 116			
alpha-BHC [2C]	11.3857	1.0	16.6667	ND	68.3	30 - 116			
alpha-Chlordane	10.5492	1.0	16.6667	ND	63.3	30 - 123			
alpha-Chlordane [2C]	12.4267	1.0	16.6667	ND	74.6	30 - 123			
beta-BHC	9.24750	1.0	16.6667	ND	55.5	24 - 121			
beta-BHC [2C]	10.7547	1.0	16.6667	ND	64.5	24 - 121			
delta-BHC	9.09767	1.0	16.6667	ND	54.6	7 - 120			
delta-BHC [2C]	10.5850	1.0	16.6667	ND	63.5	7 - 120			
Dieldrin	10.4948	2.0	16.6667	ND	63.0	25 - 136			
Dieldrin [2C]	11.4683	2.0	16.6667	ND	68.8	25 - 136			
Endosulfan I	10.2462	1.0	16.6667	ND	61.5	18 - 134			
Endosulfan I [2C]	11.4243	1.0	16.6667	ND	68.5	18 - 134			
Endosulfan II	9.01767	2.0	16.6667	ND	54.1	28 - 128			
Endosulfan II [2C]	9.82717	2.0	16.6667	ND	59.0	28 - 128			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0249 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6K0249-MS3) - Continued

Source: 1603852-17

Prepared: 11/7/2016 Analyzed: 11/8/2016

Endosulfan sulfate	6.76117	2.0	16.6667	ND	40.6	5 - 145			
Endosulfan Sulfate [2C]	7.14333	2.0	16.6667	ND	42.9	5 - 145			
Endrin	10.9457	2.0	16.6667	ND	65.7	26 - 142			
Endrin [2C]	11.9957	2.0	16.6667	ND	72.0	26 - 142			
Endrin aldehyde	5.54550	2.0	16.6667	ND	33.3	8 - 146			
Endrin aldehyde [2C]	5.45817	2.0	16.6667	ND	32.7	8 - 146			
Endrin ketone	8.42283	2.0	16.6667	ND	50.5	16 - 139			
Endrin ketone [2C]	8.08917	2.0	16.6667	ND	48.5	16 - 139			
gamma-BHC	10.7862	1.0	16.6667	ND	64.7	30 - 122			
gamma-BHC [2C]	11.5475	1.0	16.6667	ND	69.3	30 - 122			
gamma-Chlordane	9.93883	1.0	16.6667	ND	59.6	18 - 132			
gamma-Chlordane [2C]	11.3338	1.0	16.6667	ND	68.0	18 - 132			
Heptachlor	11.2555	1.0	16.6667	ND	67.5	34 - 122			
Heptachlor [2C]	11.6598	1.0	16.6667	ND	70.0	34 - 122			
Heptachlor epoxide	10.1558	1.0	16.6667	ND	60.9	21 - 135			
Heptachlor epoxide [2C]	11.0728	1.0	16.6667	ND	66.4	21 - 135			
Methoxychlor	9.04033	5.0	16.6667	ND	54.2	8 - 162			
Methoxychlor [2C]	6.84533	5.0	16.6667	ND	41.1	8 - 162			
Surrogate: Decachlorobiphenyl	12.34		16.6667		74.0	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	14.44		16.6667		86.7	27 - 123			
Surrogate: Tetrachloro-m-xylene	10.26		16.6667		61.5	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	11.81		16.6667		70.9	26 - 108			

Matrix Spike Dup (B6K0249-MSD3)

Source: 1603852-17

Prepared: 11/7/2016 Analyzed: 11/8/2016

4,4'-DDD	10.9845	2.0	16.6667	ND	65.9	25 - 141	0.0137	20	
4,4'-DDD [2C]	11.9107	2.0	16.6667	ND	71.5	25 - 141	1.71	20	
4,4'-DDE	13.7383	2.0	16.6667	ND	82.4	22 - 141	0.00117	20	
4,4'-DDE [2C]	11.9165	2.0	16.6667	ND	71.5	22 - 141	3.23	20	
4,4'-DDT	11.4698	2.0	16.6667	ND	68.8	15 - 136	3.58	20	
4,4'-DDT [2C]	10.0387	2.0	16.6667	ND	60.2	15 - 136	5.03	20	
Aldrin	10.4855	1.0	16.6667	ND	62.9	33 - 118	2.20	20	
Aldrin [2C]	12.3008	1.0	16.6667	ND	73.8	33 - 118	4.48	20	
alpha-BHC	9.98467	1.0	16.6667	ND	59.9	30 - 116	4.10	20	
alpha-BHC [2C]	11.8608	1.0	16.6667	ND	71.2	30 - 116	4.09	20	
alpha-Chlordane	10.7053	1.0	16.6667	ND	64.2	30 - 123	1.47	20	
alpha-Chlordane [2C]	12.6367	1.0	16.6667	ND	75.8	30 - 123	1.68	20	
beta-BHC	9.16333	1.0	16.6667	ND	55.0	24 - 121	0.914	20	
beta-BHC [2C]	10.8298	1.0	16.6667	ND	65.0	24 - 121	0.696	20	
delta-BHC	8.72267	1.0	16.6667	ND	52.3	7 - 120	4.21	20	
delta-BHC [2C]	10.1710	1.0	16.6667	ND	61.0	7 - 120	3.99	20	
Dieldrin	10.3288	2.0	16.6667	ND	62.0	25 - 136	1.59	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0249 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6K0249-MSD3) - Continued

Source: 1603852-17

Prepared: 11/7/2016 Analyzed: 11/8/2016

Dieldrin [2C]	11.3480	2.0	16.6667	ND	68.1	25 - 136	1.05	20	
Endosulfan I	10.1990	1.0	16.6667	ND	61.2	18 - 134	0.461	20	
Endosulfan I [2C]	11.4248	1.0	16.6667	ND	68.5	18 - 134	0.00438	20	
Endosulfan II	8.24483	2.0	16.6667	ND	49.5	28 - 128	8.95	20	
Endosulfan II [2C]	9.11050	2.0	16.6667	ND	54.7	28 - 128	7.57	20	
Endosulfan sulfate	6.14433	2.0	16.6667	ND	36.9	5 - 145	9.56	20	
Endosulfan Sulfate [2C]	6.51967	2.0	16.6667	ND	39.1	5 - 145	9.13	20	
Endrin	10.8432	2.0	16.6667	ND	65.1	26 - 142	0.941	20	
Endrin [2C]	12.0020	2.0	16.6667	ND	72.0	26 - 142	0.0528	20	
Endrin aldehyde	5.06133	2.0	16.6667	ND	30.4	8 - 146	9.13	20	
Endrin aldehyde [2C]	4.86417	2.0	16.6667	ND	29.2	8 - 146	11.5	20	
Endrin ketone	7.65483	2.0	16.6667	ND	45.9	16 - 139	9.55	20	
Endrin ketone [2C]	7.44517	2.0	16.6667	ND	44.7	16 - 139	8.29	20	
gamma-BHC	10.9315	1.0	16.6667	ND	65.6	30 - 122	1.34	20	
gamma-BHC [2C]	11.9983	1.0	16.6667	ND	72.0	30 - 122	3.83	20	
gamma-Chlordane	10.0638	1.0	16.6667	ND	60.4	18 - 132	1.25	20	
gamma-Chlordane [2C]	11.5515	1.0	16.6667	ND	69.3	18 - 132	1.90	20	
Heptachlor	11.7112	1.0	16.6667	ND	70.3	34 - 122	3.97	20	
Heptachlor [2C]	12.2740	1.0	16.6667	ND	73.6	34 - 122	5.13	20	
Heptachlor epoxide	10.1132	1.0	16.6667	ND	60.7	21 - 135	0.421	20	
Heptachlor epoxide [2C]	11.1295	1.0	16.6667	ND	66.8	21 - 135	0.510	20	
Methoxychlor	9.29733	5.0	16.6667	ND	55.8	8 - 162	2.80	20	
Methoxychlor [2C]	6.74917	5.0	16.6667	ND	40.5	8 - 162	1.41	20	
Surrogate: Decachlorobiphenyl	11.79		16.6667		70.7	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	15.45		16.6667		92.7	27 - 123			
Surrogate: Tetrachloro-m-xylene	10.36		16.6667		62.2	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	12.42		16.6667		74.5	26 - 108			



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Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K0188 - GCSEMI_PCB/PEST_S

Blank (B6K0188-BLK2)

Prepared: 11/4/2016 Analyzed: 11/7/2016

Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				

Surrogate: Decachlorobiphenyl	15.22		16.6667	91.3	26 - 137	
Surrogate: Tetrachloro-m-xylene	16.61		16.6667	99.7	28 - 102	

LCS (B6K0188-BS2)

Prepared: 11/4/2016 Analyzed: 11/7/2016

Aroclor 1016	156.698	16	166.667	94.0	70 - 107	
Aroclor 1260	166.566	16	166.667	99.9	69 - 120	
Surrogate: Decachlorobiphenyl	15.72		16.6667	94.3	26 - 137	
Surrogate: Tetrachloro-m-xylene	17.30		16.6667	104	28 - 102	S12

Duplicate (B6K0188-DUP1)

Source: 1603852-12

Prepared: 11/4/2016 Analyzed: 11/7/2016

Aroclor 1016	ND	16		ND	NR		20
Aroclor 1260	ND	16		ND	NR		20
Surrogate: Decachlorobiphenyl	10.54		16.6667	63.2	26 - 137		
Surrogate: Tetrachloro-m-xylene	15.28		16.6667	91.7	28 - 102		

Matrix Spike (B6K0188-MS2)

Source: 1603852-01

Prepared: 11/4/2016 Analyzed: 11/7/2016

Aroclor 1016	111.100	16	166.667	ND	66.7	34 - 120	
Aroclor 1260	111.758	16	166.667	ND	67.1	39 - 128	
Surrogate: Decachlorobiphenyl	8.982		16.6667	53.9	26 - 137		
Surrogate: Tetrachloro-m-xylene	12.89		16.6667	77.4	28 - 102		

Matrix Spike Dup (B6K0188-MSD2)

Source: 1603852-01

Prepared: 11/4/2016 Analyzed: 11/7/2016

Aroclor 1016	100.347	16	166.667	ND	60.2	34 - 120	10.2	20
Aroclor 1260	101.808	16	166.667	ND	61.1	39 - 128	9.32	20
Surrogate: Decachlorobiphenyl	7.268		16.6667	43.6	26 - 137			
Surrogate: Tetrachloro-m-xylene	11.40		16.6667	68.4	28 - 102			



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Report To : John Nordenstam

Reported : 11/09/2016

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Maxwell, Jeff [JMaxwell@trcsolutions.com]
Sent: Tuesday, November 01, 2016 2:01 PM
To: Rachelle Arada
Cc: Nordenstam, John
Subject: LAUSD Roosevelt High School - Additional Soil Sample Compositing Instructions

Good morning Rachelle,

See below for additional soil sample compositing instructions for samples collected from Area 6.

- Composite F1 – composite Samples AA955-1-0.5, AA955-2-0.5, and AA955-3-0.5 – analyze for OCPs and PCBs
- Composite F2 – composite Samples AA955-4-0.5, AA955-5-0.5, and AA955-6-0.5 – analyze for OCPs
- Composite F3 – composite Samples AA2573-1-0.5, AA2573-2-0.5, and AA2573-3-0.5 – analyze for OCPs
- Composite F4 – composite Samples AA2573-4-0.5 and AA2573-5-0.5 – analyze for OCPs
- Composite F5 – composite Samples AA1917-1-0.5, AA1917-2-0.5, AA1917-3-0.5, and AA1917-4-0.5 – analyze for OCPs
- Composite F6 – composite Samples AA2685-1-0.5, AA2685-2-0.5, AA2685-3-0.5, and AA2685-4-0.5 – analyze for OCPs
- Composite F7 – composite Samples AA2684-1-0.5, AA2684-2-0.5, AA2684-3-0.5, and AA2684-4-0.5 – analyze for OCPs
- Composite F8 – composite Samples AA2543-1-0.5, AA2543-2-0.5, and AA2543-3-0.5 – analyze for OCPs
- Composite F9 – composite Samples AA2543-4-0.5, AA2543-5-0.5, and AA2543-6-0.5 – analyze for OCPs
- Composite F10 – composite Samples AA2038-1-0.5, AA2038-2-0.5, AA2038-3-0.5, and AA2038-4-0.5 – analyze for OCPs (please also analyze a DUPLICATE)
- Composite F11 – composite Samples AA2249-1-0.5, AA2249-2-0.5, AA2249-3-0.5, and AA2249-4-0.5 – analyze for OCPs
- Composite F12 – composite Samples FS-1-0.5, FS-2-0.5, FS-3-0.5, and FS-4-0.5 – analyze for OCPs
- Composite F13 – composite Samples AS-1-0.5, AS-2-0.5, AS-3-0.5, and AS-4-0.5 – analyze for OCPs and PCBs
- Composite F14 – composite Samples IM-1-0.5, IM-2-0.5, and IM-3-0.5 – analyze for OCPs
- Composite F15 – composite Samples IM-4-0.5, IM-5-0.5, and IM-6-0.5 – analyze for OCPs
- Composite F16 – composite Samples CRA-1-0.5, CRA-2-0.5, CRA-3-0.5, and CRA-4-0.5 – analyze for OCPs
- Composite F17 – composite Samples CRB-1-0.5, CRB-2-0.5, CRB-3-0.5, and CRB-4-0.5 – analyze for OCPs
- Composite F18 – composite Samples CR1-1-0.5, CR1-2-0.5, and CR1-3-0.5 – analyze for OCPs and PCBs (please also analyze a DUPLICATE)
- Composite F19 – composite Samples CR1-4-0.5, CR1-5-0.5, and CR1-6-0.5 – analyze for OCPs
- Composite F20 – composite Samples P14-0.5, P15-0.5, and P16-0.5 – analyze for OCPs
- Composite F21 – composite Samples Q14-0.5, Q15-0.5, and Q16-0.5 – analyze for OCPs
- Composite F22 – composite Samples R14-0.5, R15-0.5, and R16-0.5 – analyze for OCPs

Please call me or John Nordenstam if you have any questions.

Jeff

Jeffrey R. Maxwell, PG
Principal Geologist



December 13, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604222
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on November 21, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AUD-3b-0.5	1604222-01	Soil	11/21/16 8:08	11/21/16 15:50
AUD-3a-0.5	1604222-03	Soil	11/21/16 8:12	11/21/16 15:50
AUD-3c-0.5	1604222-05	Soil	11/21/16 8:15	11/21/16 15:50
AUD-4c-0.25	1604222-07	Soil	11/21/16 8:36	11/21/16 15:50
AUD-4c-0.5	1604222-08	Soil	11/21/16 8:38	11/21/16 15:50
AUD-4-0.25	1604222-10	Soil	11/21/16 8:42	11/21/16 15:50
AUD-4b-0.25	1604222-11	Soil	11/21/16 8:44	11/21/16 15:50
AUD-4b-0.5	1604222-12	Soil	11/21/16 8:46	11/21/16 15:50
AUD-5-0.25	1604222-14	Soil	11/21/16 8:50	11/21/16 15:50
AUD-5c-0.25	1604222-15	Soil	11/21/16 8:54	11/21/16 15:50
AUD-5c-0.5	1604222-16	Soil	11/21/16 8:56	11/21/16 15:50
AUD-5b-0.25	1604222-18	Soil	11/21/16 9:05	11/21/16 15:50
AUD-5b-0.5	1604222-19	Soil	11/21/16 9:07	11/21/16 15:50
AUD-6-0.25	1604222-21	Soil	11/21/16 9:20	11/21/16 15:50
AUD-6b-0.25	1604222-22	Soil	11/21/16 9:40	11/21/16 15:50
AUD-6b-0.5	1604222-23	Soil	11/21/16 9:41	11/21/16 15:50
AUD-6c-0.25	1604222-25	Soil	11/21/16 9:44	11/21/16 15:50
AUD-6c-0.5	1604222-26	Soil	11/21/16 9:45	11/21/16 15:50
MB-6d-0.5	1604222-28	Soil	11/21/16 10:25	11/21/16 15:50
MB-6a-0.5	1604222-30	Soil	11/21/16 10:30	11/21/16 15:50
MB-6c-0.5	1604222-32	Soil	11/21/16 10:40	11/21/16 15:50
W-14b-0.5	1604222-34	Soil	11/21/16 11:15	11/21/16 15:50
W-14b-2.5	1604222-35	Soil	11/21/16 11:16	11/21/16 15:50
W-14b-3.5	1604222-36	Soil	11/21/16 11:17	11/21/16 15:50
W-14a-0.5	1604222-37	Soil	11/21/16 11:20	11/21/16 15:50
W-14a-2.5	1604222-38	Soil	11/21/16 11:21	11/21/16 15:50
W-14a-3.5	1604222-39	Soil	11/21/16 11:22	11/21/16 15:50
W-14c-0.5	1604222-40	Soil	11/21/16 11:25	11/21/16 15:50
W-14c-2.5	1604222-41	Soil	11/21/16 11:26	11/21/16 15:50
W-14c-3.5	1604222-42	Soil	11/21/16 11:27	11/21/16 15:50
W-14d-0.5	1604222-43	Soil	11/21/16 11:30	11/21/16 15:50
W-14d-2.5	1604222-44	Soil	11/21/16 11:31	11/21/16 15:50
W-14d-3.5	1604222-45	Soil	11/21/16 11:32	11/21/16 15:50
X-14b-0.5	1604222-46	Soil	11/21/16 11:40	11/21/16 15:50
X-14b-2.5	1604222-47	Soil	11/21/16 11:41	11/21/16 15:50
X-14b-3.5	1604222-48	Soil	11/21/16 11:42	11/21/16 15:50
X-14c-0.5	1604222-49	Soil	11/21/16 11:44	11/21/16 15:50



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X-14c-2.5	1604222-50	Soil	11/21/16 11:45	11/21/16 15:50
X-14c-3.5	1604222-51	Soil	11/21/16 11:46	11/21/16 15:50
X-14d-0.5	1604222-52	Soil	11/21/16 11:48	11/21/16 15:50
X-14d-2.5	1604222-53	Soil	11/21/16 11:50	11/21/16 15:50
X-14d-3.5	1604222-54	Soil	11/21/16 11:52	11/21/16 15:50
V-16-0.25	1604222-55	Soil	11/21/16 11:56	11/21/16 15:50
V-16a-0.25	1604222-56	Soil	11/21/16 11:58	11/21/16 15:50
V-16a-0.5	1604222-57	Soil	11/21/16 12:00	11/21/16 15:50
V-16b-0.25	1604222-59	Soil	11/21/16 12:04	11/21/16 15:50
V-16b-0.5	1604222-60	Soil	11/21/16 12:06	11/21/16 15:50
V-16c-0.25	1604222-62	Soil	11/21/16 12:10	11/21/16 15:50
V-16c-0.5	1604222-63	Soil	11/21/16 12:12	11/21/16 15:50
V-16d-0.25	1604222-65	Soil	11/21/16 12:16	11/21/16 15:50
V-16d-0.5	1604222-66	Soil	11/21/16 12:18	11/21/16 15:50
X-17a-0.5	1604222-68	Soil	11/21/16 12:30	11/21/16 15:50
X-17b-0.5	1604222-70	Soil	11/21/16 12:34	11/21/16 15:50
X-17c-0.5	1604222-72	Soil	11/21/16 12:40	11/21/16 15:50
X-17d-0.5	1604222-74	Soil	11/21/16 12:44	11/21/16 15:50
Y-17b-0.5	1604222-76	Soil	11/21/16 12:50	11/21/16 15:50
Y-17c-0.5	1604222-78	Soil	11/21/16 12:54	11/21/16 15:50
Y-17d-0.5	1604222-80	Soil	11/21/16 12:58	11/21/16 15:50
AUD-3c-0.25	1604222-82	Soil	11/21/16 13:30	11/21/16 15:50
H-2a-0.5	1604222-83	Soil	11/21/16 13:40	11/21/16 15:50
H-2a-2.5	1604222-84	Soil	11/21/16 13:42	11/21/16 15:50
H-2a-3.5	1604222-85	Soil	11/21/16 13:44	11/21/16 15:50
H-2b-0.5	1604222-86	Soil	11/21/16 13:46	11/21/16 15:50
H-2b-2.5	1604222-87	Soil	11/21/16 13:48	11/21/16 15:50
H-2b-3.5	1604222-88	Soil	11/21/16 13:50	11/21/16 15:50
H-2c-0.5	1604222-89	Soil	11/21/16 13:52	11/21/16 15:50
H-2c-2.5	1604222-90	Soil	11/21/16 13:54	11/21/16 15:50
H-2c-3.5	1604222-91	Soil	11/21/16 13:56	11/21/16 15:50
H-2d-0.5	1604222-92	Soil	11/21/16 14:00	11/21/16 15:50
H-2d-2.5	1604222-93	Soil	11/21/16 14:02	11/21/16 15:50
H-2d-3.5	1604222-94	Soil	11/21/16 14:04	11/21/16 15:50
EB-17	1604222-95	Water	11/21/16 14:10	11/21/16 15:50
EB-18	1604222-96	Water	11/21/16 14:15	11/21/16 15:50
AUD-4-0.25 DUP	1604222-97	Soil	11/21/16 8:42	11/21/16 15:50
AUD-6c-0.25 DUP	1604222-98	Soil	11/21/16 9:44	11/21/16 15:50
W-14b-2.5 DUP	1604222-99	Soil	11/21/16 11:16	11/21/16 15:50
W-14c-0.5 DUP	1604222-AA	Soil	11/21/16 11:25	11/21/16 15:50
X-14c-2.5 DUP	1604222-AB	Soil	11/21/16 11:45	11/21/16 15:50



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V-16b-0.5 DUP	1604222-AC	Soil	11/21/16 12:06	11/21/16 15:50
X-17b-0.5 DUP	1604222-AD	Soil	11/21/16 12:34	11/21/16 15:50
Y-17d-0.5 DUP	1604222-AE	Soil	11/21/16 12:58	11/21/16 15:50
H-2c-2.5 DUP	1604222-AF	Soil	11/21/16 13:54	11/21/16 15:50
H-2d-3.5 DUP	1604222-AG	Soil	11/21/16 14:04	11/21/16 15:50



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Reported : 12/13/2016

Client Sample ID AUD-3b-0.5

Lab ID: 1604222-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	140	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:33	



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Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID AUD-3a-0.5

Lab ID: 1604222-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4300	5.0	0.56	5	B6K1075	11/30/2016	12/02/16 11:59	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID AUD-3c-0.5

Lab ID: 1604222-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	700	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:38	



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Project Number : ROOSEVELT HS, 265642
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Reported : 12/13/2016

Client Sample ID AUD-4c-0.25

Lab ID: 1604222-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	49	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:39	



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Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID AUD-4c-0.5

Lab ID: 1604222-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	460	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:40	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID AUD-4-0.25

Lab ID: 1604222-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	29	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:44	



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Reported : 12/13/2016

Client Sample ID AUD-4b-0.25

Lab ID: 1604222-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:45	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
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Client Sample ID AUD-4b-0.5

Lab ID: 1604222-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.8	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:46	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID AUD-5-0.25

Lab ID: 1604222-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	130	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:47	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID AUD-5c-0.25

Lab ID: 1604222-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	110	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:48	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID AUD-5c-0.5

Lab ID: 1604222-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:49	



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Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID AUD-5b-0.25

Lab ID: 1604222-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:51	



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Client Sample ID AUD-5b-0.5

Lab ID: 1604222-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	240	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:52	



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Client Sample ID AUD-6-0.25

Lab ID: 1604222-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	160	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:53	



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Client Sample ID AUD-6b-0.25

Lab ID: 1604222-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	41	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:54	



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Client Sample ID AUD-6b-0.5

Lab ID: 1604222-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	160	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:58	



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Reported : 12/13/2016

Client Sample ID AUD-6c-0.25

Lab ID: 1604222-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	110	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 16:59	



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Reported : 12/13/2016

Client Sample ID AUD-6c-0.5

Lab ID: 1604222-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	66	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 17:00	



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Reported : 12/13/2016

Client Sample ID MB-6d-0.5

Lab ID: 1604222-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.8	1.0	0.11	1	B6K1075	11/30/2016	12/01/16 17:01	



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Reported : 12/13/2016

Client Sample ID MB-6a-0.5

Lab ID: 1604222-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.7	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:05	



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Reported : 12/13/2016

Client Sample ID MB-6c-0.5

Lab ID: 1604222-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.9	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:11	



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Project Number : ROOSEVELT HS, 265642
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Reported : 12/13/2016

Client Sample ID W-14b-0.5

Lab ID: 1604222-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:12	



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Reported : 12/13/2016

Client Sample ID W-14b-2.5

Lab ID: 1604222-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	32	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:13	



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Client Sample ID W-14b-3.5

Lab ID: 1604222-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.3	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:15	



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Client Sample ID W-14a-0.5

Lab ID: 1604222-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6300	10	1.1	10	B6K1076	11/30/2016	12/02/16 10:40	D6



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Client Sample ID W-14a-2.5

Lab ID: 1604222-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.9	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:17	



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Client Sample ID W-14a-3.5

Lab ID: 1604222-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.0	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:18	



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Client Sample ID W-14c-0.5

Lab ID: 1604222-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.8	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:19	



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Reported : 12/13/2016

Client Sample ID W-14c-2.5

Lab ID: 1604222-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	99	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:20	



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Client Sample ID W-14c-3.5

Lab ID: 1604222-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	43	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:21	



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Client Sample ID W-14d-0.5

Lab ID: 1604222-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.3	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:25	



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Reported : 12/13/2016

Client Sample ID W-14d-2.5

Lab ID: 1604222-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:26	



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Client Sample ID W-14d-3.5

Lab ID: 1604222-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.9	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:27	



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Reported : 12/13/2016

Client Sample ID X-14b-0.5

Lab ID: 1604222-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:28	



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Reported : 12/13/2016

Client Sample ID X-14b-2.5

Lab ID: 1604222-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	18	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:30	



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Reported : 12/13/2016

Client Sample ID X-14b-3.5

Lab ID: 1604222-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:31	



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Reported : 12/13/2016

Client Sample ID X-14c-0.5

Lab ID: 1604222-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.8	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:32	



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Reported : 12/13/2016

Client Sample ID X-14c-2.5

Lab ID: 1604222-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.7	1.0	0.11	1	B6K1076	11/30/2016	12/01/16 17:33	



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Reported : 12/13/2016

Client Sample ID X-14c-3.5

Lab ID: 1604222-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:39	



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Reported : 12/13/2016

Client Sample ID X-14d-0.5

Lab ID: 1604222-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.9	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:43	



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Client Sample ID X-14d-2.5

Lab ID: 1604222-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:44	



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Reported : 12/13/2016

Client Sample ID X-14d-3.5

Lab ID: 1604222-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.5	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:45	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID V-16-0.25

Lab ID: 1604222-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:46	



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Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID V-16a-0.25

Lab ID: 1604222-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	29	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:47	



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Project Number : ROOSEVELT HS, 265642

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Reported : 12/13/2016

Client Sample ID V-16a-0.5

Lab ID: 1604222-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:48	



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Project Number : ROOSEVELT HS, 265642

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Reported : 12/13/2016

Client Sample ID V-16b-0.25

Lab ID: 1604222-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:52	



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Project Number : ROOSEVELT HS, 265642

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Reported : 12/13/2016

Client Sample ID V-16b-0.5

Lab ID: 1604222-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	19	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:53	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID V-16c-0.25

Lab ID: 1604222-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	15	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:54	



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Project Number : ROOSEVELT HS, 265642
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Reported : 12/13/2016

Client Sample ID V-16c-0.5

Lab ID: 1604222-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	29	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:55	



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Reported : 12/13/2016

Client Sample ID V-16d-0.25

Lab ID: 1604222-65

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.6	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:57	



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Project Number : ROOSEVELT HS, 265642
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Reported : 12/13/2016

Client Sample ID V-16d-0.5

Lab ID: 1604222-66

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	0.11	1	B6K1077	11/30/2016	12/01/16 17:58	



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID X-17a-0.5

Lab ID: 1604222-68

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.5	1.0	0.70	1	B6K1077	11/30/2016	12/01/16 17:59	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID X-17b-0.5

Lab ID: 1604222-70

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B6K1077	11/30/2016	12/01/16 18:00	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID X-17c-0.5

Lab ID: 1604222-72

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.9	1.0	0.70	1	B6K1077	11/30/2016	12/01/16 18:01	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID X-17d-0.5

Lab ID: 1604222-74

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B6K1077	11/30/2016	12/01/16 18:02	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID Y-17b-0.5

Lab ID: 1604222-76

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K1077	11/30/2016	12/01/16 18:06	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID Y-17c-0.5

Lab ID: 1604222-78

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	0.70	1	B6K1077	11/30/2016	12/01/16 18:07	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID Y-17d-0.5

Lab ID: 1604222-80

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6K1078	11/30/2016	12/01/16 18:11	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID AUD-3c-0.25

Lab ID: 1604222-82

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	500	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:15	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2a-0.5

Lab ID: 1604222-83

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.2	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:16	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2a-2.5

Lab ID: 1604222-84

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	20	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID H-2a-3.5

Lab ID: 1604222-85

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.9	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:21	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2b-0.5

Lab ID: 1604222-86

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	37	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:22	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2b-2.5

Lab ID: 1604222-87

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.0	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:23	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2b-3.5

Lab ID: 1604222-88

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.2	2.0	0.22	2	B6K1078	11/30/2016	12/02/16 10:41	D5



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2c-0.5

Lab ID: 1604222-89

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	81	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:26	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2c-2.5

Lab ID: 1604222-90

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.8	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:27	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2c-3.5

Lab ID: 1604222-91

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.7	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:28	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2d-0.5

Lab ID: 1604222-92

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.9	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:29	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2d-2.5

Lab ID: 1604222-93

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	29	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:30	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2d-3.5

Lab ID: 1604222-94

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.6	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:34	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID EB-17

Lab ID: 1604222-95

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K1088	11/30/2016	12/01/16 11:28	
Lead	ND	0.0050	0.0028	1	B6K1088	11/30/2016	12/01/16 11:28	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID EB-18

Lab ID: 1604222-96

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K1088	11/30/2016	12/01/16 11:50	
Lead	0.013	0.0050	0.0028	1	B6K1088	11/30/2016	12/01/16 11:50	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID AUD-4-0.25 DUP

Lab ID: 1604222-97

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	20	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:19	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID AUD-6c-0.25 DUP

Lab ID: 1604222-98

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	82	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID W-14b-2.5 DUP

Lab ID: 1604222-99

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:21	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID W-14c-0.5 DUP

Lab ID: 1604222-AA

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.4	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:22	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID X-14c-2.5 DUP

Lab ID: 1604222-AB

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.6	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:26	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID V-16b-0.5 DUP

Lab ID: 1604222-AC

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:27	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID X-17b-0.5 DUP

Lab ID: 1604222-AD

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B6L0387	12/11/2016	12/12/16 12:28	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Client Sample ID Y-17d-0.5 DUP

Lab ID: 1604222-AE

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	0.70	1	B6L0387	12/11/2016	12/12/16 12:29	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2c-2.5 DUP

Lab ID: 1604222-AF

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.9	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:30	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Client Sample ID H-2d-3.5 DUP

Lab ID: 1604222-AG

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.9	1.0	0.11	1	B6L0387	12/11/2016	12/12/16 12:31	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1075 - EPA 3050B_S

Blank (B6K1075-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K1075-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	44.4530	1.0	50.0000		88.9	80 - 120			
Lead	46.3709	1.0	50.0000		92.7	80 - 120			

Duplicate (B6K1075-DUP1)

Source: 1604222-01

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	3.06873	1.0		2.68757	NR		13.2	20	
Lead	144.756	1.0		142.942	NR		1.26	20	

Matrix Spike (B6K1075-MS1)

Source: 1604222-01

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	98.9028	1.0	125.000	2.68757	77.0	59 - 103			
Lead	261.462	1.0	125.000	142.942	94.8	34 - 129			

Matrix Spike Dup (B6K1075-MSD1)

Source: 1604222-01

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	100.835	1.0	125.000	2.68757	78.5	59 - 103	1.93	20	
Lead	236.952	1.0	125.000	142.942	75.2	34 - 129	9.84	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1076 - EPA 3050B_S

Blank (B6K1076-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	1.0			NR				
Lead	0.155241	1.0			NR				J

LCS (B6K1076-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	45.9595	1.0	50.0000		91.9	80 - 120			
Lead	48.0557	1.0	50.0000		96.1	80 - 120			

Duplicate (B6K1076-DUP1)

Source: 1604222-30

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.44714	1.0		3.23219	NR		27.6	20	
Lead	7.06014	1.0		7.68169	NR		8.43	20	

Matrix Spike (B6K1076-MS1)

Source: 1604222-30

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	99.9784	1.0	125.000	3.23219	77.4	59 - 103			
Lead	99.3052	1.0	125.000	7.68169	73.3	34 - 129			

Matrix Spike Dup (B6K1076-MSD1)

Source: 1604222-30

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	99.4931	1.0	125.000	3.23219	77.0	59 - 103	0.487	20	
Lead	98.9635	1.0	125.000	7.68169	73.0	34 - 129	0.345	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1077 - EPA 3050B_S

Blank (B6K1077-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	1.0			NR				
Lead	0.125165	1.0			NR				J

LCS (B6K1077-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	44.1377	1.0	50.0000		88.3	80 - 120			
Lead	45.7609	1.0	50.0000		91.5	80 - 120			

Duplicate (B6K1077-DUP1)

Source: 1604222-51

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.74017	1.0		3.24590	NR		16.9	20	
Lead	11.2955	1.0		13.0695	NR		14.6	20	

Matrix Spike (B6K1077-MS1)

Source: 1604222-51

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	91.7824	1.0	125.000	3.24590	70.8	59 - 103			
Lead	97.3306	1.0	125.000	13.0695	67.4	34 - 129			

Matrix Spike Dup (B6K1077-MSD1)

Source: 1604222-51

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	92.7044	1.0	125.000	3.24590	71.6	59 - 103	0.999	20	
Lead	99.0448	1.0	125.000	13.0695	68.8	34 - 129	1.75	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1078 - EPA 3050B_S

Blank (B6K1078-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K1078-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	41.3561	1.0	50.0000		82.7	80 - 120			
Lead	42.4208	1.0	50.0000		84.8	80 - 120			

Duplicate (B6K1078-DUP1)

Source: 1604222-80

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	3.92015	1.0		4.72102	NR		18.5	20	
Lead	7.91634	1.0		7.92626	NR		0.125	20	

Matrix Spike (B6K1078-MS1)

Source: 1604222-80

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	89.0881	1.0	125.000	4.72102	67.5	59 - 103			
Lead	89.5694	1.0	125.000	7.92626	65.3	34 - 129			

Matrix Spike Dup (B6K1078-MSD1)

Source: 1604222-80

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	87.2942	1.0	125.000	4.72102	66.1	59 - 103	2.03	20	
Lead	84.9056	1.0	125.000	7.92626	61.6	34 - 129	5.35	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1088 - EPA 3010A_W

Blank (B6K1088-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6K1088-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	0.876868	0.010	1.00000		87.7	80 - 120			
Lead	0.970161	0.0050	1.00000		97.0	80 - 120			

Duplicate (B6K1088-DUP1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6K1088-MS1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.19257	0.010	2.50000	ND	87.7	74 - 123			
Lead	2.42081	0.0050	2.50000	ND	96.8	78 - 109			

Matrix Spike Dup (B6K1088-MSD1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.27086	0.010	2.50000	ND	90.8	74 - 123	3.51	20	
Lead	2.51290	0.0050	2.50000	ND	101	78 - 109	3.73	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/13/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0387 - EPA 3050B_S

Blank (B6L0387-BLK1)

Prepared: 12/11/2016 Analyzed: 12/12/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6L0387-BS1)

Prepared: 12/11/2016 Analyzed: 12/12/2016

Arsenic	45.5818	1.0	50.0000		91.2	80 - 120			
Lead	47.6605	1.0	50.0000		95.3	80 - 120			

Duplicate (B6L0387-DUP1)

Source: 1604036-10

Prepared: 12/11/2016 Analyzed: 12/12/2016

Arsenic	14.4177	1.0		13.3382	NR		7.78	20	
Lead	2.10602	1.0		2.04616	NR		2.88	20	

Matrix Spike (B6L0387-MS1)

Source: 1604036-10

Prepared: 12/11/2016 Analyzed: 12/12/2016

Arsenic	110.576	1.0	125.000	13.3382	77.8	59 - 103			
Lead	98.1808	1.0	125.000	2.04616	76.9	34 - 129			

Matrix Spike Dup (B6L0387-MSD1)

Source: 1604036-10

Prepared: 12/11/2016 Analyzed: 12/12/2016

Arsenic	113.080	1.0	125.000	13.3382	79.8	59 - 103	2.24	20	
Lead	101.319	1.0	125.000	2.04616	79.4	34 - 129	3.15	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/13/2016

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D6	Sample required dilution due to high concentration of target analyte.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver. 20130715

Method of Transport	Sample Conditions Upon Receipt
<input checked="" type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	Condition Y <input checked="" type="checkbox"/> N <input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input checked="" type="checkbox"/> 6. PRESERVED <input checked="" type="checkbox"/> 7. COOLER TEMP. DEG. C: 5.7, 5.7 8. SEALED <input checked="" type="checkbox"/>

Company: **TRC** Address: **9685 RESEARCH DR** Tel: _____
City: **IRVINE** State: **CA** Zip: **92618** Fax: _____
Attn: **JOHN HORDENHAM** Email: _____
Company: **TRC** Company: _____
Address: **9685 RESEARCH DRIVE** Address: _____
City: **IRVINE** State: **CA** Zip: **92618** State: _____ Zip: _____

Project Name: **ROOSEVELT HS** Quote No: **E161131**
Project No.: **265642** PO #: **100816**
Sampler: **R. SURENCY**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	150422	-1	AWD-3b-0.5	11-21-16	0808
2	-2	AWD-3b-2.5			0810
3	-3	AWD-3a-0.5			0812
4	-4	AWD-3b-2.5			0814
5	-5	AWD-3c-0.5			0815
6	-6	AWD-3c-2.5			0817
7	-7	AWD-4c-0.25			0836
8	-8	AWD-4c-0.5			0838
9	-9	AWD-4c-2.5			0840
10	-10	AWD-4-0.25			0842

Special Instructions/Comments:

Encircle or Write Requested Analysis

Encircle Sample Matrix	Encircle or Write Requested Analysis	Container	QA/QC
TO-15	<input checked="" type="checkbox"/> LEAD <input checked="" type="checkbox"/> CADMIUM <input checked="" type="checkbox"/> COPPER <input checked="" type="checkbox"/> CHROMIUM <input checked="" type="checkbox"/> MANGANESE <input checked="" type="checkbox"/> NICKEL <input checked="" type="checkbox"/> SILVER <input checked="" type="checkbox"/> ZINC	5-15-14	5-Zn (4d2), 6-NiOH, 7-HNO3, 3-H2SO4, 4-AC, 5-Zn (4d2), 6-NiOH, 7-HNO3, 3-H2SO4, 4-AC
6010 / 7000 (Title 22 Metals)			
8082 (PCBs)			
8081 (Organochlorine Pesticides)			
8270 (Semi-volatiles)			
8015 (DRO)			
8015 (GRO)			
8260 / 624 (Volatiles)			

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: (Signature and Printed Name) **John Hordenham** Date: **11-21-16** Time: **1550**
Relinquished by: (Signature and Printed Name) **John Hordenham** Date: **11-21-16** Time: **1550**
Relinquished by: (Signature and Printed Name) **John Hordenham** Date: **11-21-16** Time: **1550**

CHAIN OF CUSTODY RECORD

Page 2 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only ATCOC Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt			
Client	Condition	Y	N	Y	N
<input type="checkbox"/> ATL	<input type="checkbox"/> CHILLED				
<input type="checkbox"/> FedEx	<input type="checkbox"/> HEADSPACE (VDA)				
<input type="checkbox"/> GSO	<input type="checkbox"/> CONTAINER IMPACT				
<input type="checkbox"/> Other:	<input type="checkbox"/> 7. COOLER TEMP. (deg. C)				
	<input type="checkbox"/> 4. SEALED				

Company: **TRC** Address: **9685 RESEARCH DRIVE** City: **IRVINE** State: **CA** Zip: **92618**

Attn: **JOHN HORDENSTAM** Email: _____

Company: **TRC** Address: _____ City: _____ State: _____ Zip: _____

Project Name: **ROOSEVELT HS** Quote No: **E161131**

Project No.: **265642** PO #: **100816**

Sampler: **R SURRELKY**

Project Name: ROOSEVELT HS			Quote No: E16I131		Special Instructions/Comments:																									
Project No.: 265642			PO #: 100816																											
Sampler: R SURRENCY																														
ITEM	Lab No.	Sample Description			Sample ID / Location	Date	Time																							
1	1604222-11	AWD-4b-0.25			AWD-4b-0.25	11-21-16	0844	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LEAD 6010 B														
2	/	AWD-4b-0.5			AWD-4b-0.5	/	0846								X		SOIL / SEDIMENT / SLUDGE													
3	/	AWD-4b-2.5			AWD-4b-2.5	/	0848								X		WATER - DRINKING / GROUND													
4	/	AWD-5c-0.25			AWD-5c-0.25	/	0850								X		WATER - STORM / WASTE													
5	/	AWD-5c-0.25			AWD-5c-0.25	/	0854								X		AQUEOUS / LAYERED - OIL													
6	/	AWD-5c-0.5			AWD-5c-0.5	/	0856								X															
7	/	AWD-5c-2.5			AWD-5c-2.5	/	0900								X															
8	/	AWD-5b-0.25			AWD-5b-0.25	/	0905								X															
9	/	AWD-5b-0.5			AWD-5b-0.5	/	0907								X															
10	/	AWD-5b-2.5			AWD-5b-2.5	/	0909								X															
																			Encircle or Write Requested Analysis			Encircle Sample Matrix			TAT		Container		QA/QC	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Date: 11/21/16 Time: 1550

Relinquished by: (Signature and Printed Name) John Hordenstam

Relinquished by: (Signature and Printed Name) _____

Relinquished by: (Signature and Printed Name) _____

Relinquished by: (Signature and Printed Name) _____

CHAIN OF CUSTODY RECORD

Page 3 of 10

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VDA)	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> 6. PRESERVED <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/> 7. COOLER TEMP. deg. C. <input type="checkbox"/>

Company: TRC	Address: 9685 RESEARCH DR	Tel:
Attn: JOHN NORDENSTAM	City: IRVINE	Fax:
Company: TRC	State: CA	Zip: 92618
Address: 9685 RESEARCH DRIVE	SEND INVOICE TO: <input checked="" type="checkbox"/> same as SEND REPORT TO	
City: IRVINE	State: CA	Zip: 92618

Project Name: ROOSEVELT HS		Quote No: E16131		Special Instructions/Comments:	
Project No: 265642		PO #: 100816			
Sampler: R SURFENY					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	160422-21	AWD-6-0.25		11-21-16	0920
2	160422-22	AWD-6b-0.25			0940
3	160422-23	AWD-6b-0.5			0941
4	160422-24	AWD-6b-2.5			0942
5	160422-25	AWD-6c-0.25			0944
6	160422-26	AWD-6c-0.5			0945
7	160422-27	AWD-6c-2.5			0947
8	160422-28	MB-6d-0.5			1025
9	160422-29	MB-6d-2.5			1027
10	160422-30	MB-6a-0.5			1030

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Submitter Print Name	
Signature	
Date: 11/21/16	Time: 1550
Relinquished by: (Signature and Printed Name)	
Relinquished by: (Signature and Printed Name)	
Relinquished by: (Signature and Printed Name)	

Page 7 of 10

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

CUSTOMERPROJECT SAMPLES

TERMS

Page 101 of 116

Relinquished by: (Signature and Printed Name)	Date: 11-24-16	Time: 1:50	Received by: (Signature and Printed Name)	Date: 11/21/16	Time: 1:50
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY

LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: TRC

Address: 9685 RESEARCH DRIVE

City: IRVINE

State: CA

Zip: 92618

Attn: JOHN NORDENSTAM

Company: TRC

Address:

City: IRVINE

State: CA

Zip: 92618

SEND REPORT TO:

SEND INVOICE TO:

Attn:

Company:

Address:

City:

State:

Zip:

Project Name: ROOSEVELT HS

Project No.: 265642

Sampler: R SURFACENCY

Quote No: E161131

PO #: 100216

Lab No.

Sample ID / Location

Sample Description

Time

1

X-17b-2.5

11-21-16

1236

2

X-17c-0.5

1240

3

X-17c-2.5

1242

4

X-17d-0.5

1244

5

X-17d-2.5

1246

6

Y-17b-0.5

1250

7

Y-17b-2.5

1252

8

Y-17c-0.5

1254

9

Y-17c-2.5

1256

10

Y-17d-0.5

1258

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container

QA/QC

8260 / 624 (Volatiles)

8015 (GRO)

8015 (PRO)

8270 (Semi-volatiles)

8081 (Organochlorine Pesticides)

8082 (PCBs)

6010 / 7000 (Title 22 Metals)

TO-15

MOBILE 6010

MOBILE 6010

SOILS / SEDIMENT / SLUDGE

WATER - DRINKING / GROUND

WATER - STORM / WASTE

AQUEOUS / LAYERED - OIL

Material: 1=Glass, 2=Plastic, 3=Metal

Type: 1=Tube, 2=VOA, 3=Liter, 4=Pin, 5=Jar, 6=Canister, 7=Canister

Preservative: 1=HCl, 2=HNO3, 3=H2SO4, 4=4C, 5=Zn, 6=NaOH, 7=NA2S2O3

QA/QC: Routine, Caltrans, Legal, RWQCB, Level IV

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name

Signature

Date: 11/21/16

Time: 1:55

1. Samples received before 7:30 AM on Monday, Friday, Saturday 8:00 AM to 12:00 PM. Samples received after 12:00 PM, 22:00 PM, 23:00 PM, 24:00 PM, 25:00 PM, 26:00 PM, 27:00 PM, 28:00 PM, 29:00 PM, 30:00 PM, 31:00 PM, 32:00 PM, 33:00 PM, 34:00 PM, 35:00 PM, 36:00 PM, 37:00 PM, 38:00 PM, 39:00 PM, 40:00 PM, 41:00 PM, 42:00 PM, 43:00 PM, 44:00 PM, 45:00 PM, 46:00 PM, 47:00 PM, 48:00 PM, 49:00 PM, 50:00 PM, 51:00 PM, 52:00 PM, 53:00 PM, 54:00 PM, 55:00 PM, 56:00 PM, 57:00 PM, 58:00 PM, 59:00 PM, 60:00 PM, 61:00 PM, 62:00 PM, 63:00 PM, 64:00 PM, 65:00 PM, 66:00 PM, 67:00 PM, 68:00 PM, 69:00 PM, 70:00 PM, 71:00 PM, 72:00 PM, 73:00 PM, 74:00 PM, 75:00 PM, 76:00 PM, 77:00 PM, 78:00 PM, 79:00 PM, 80:00 PM, 81:00 PM, 82:00 PM, 83:00 PM, 84:00 PM, 85:00 PM, 86:00 PM, 87:00 PM, 88:00 PM, 89:00 PM, 90:00 PM, 91:00 PM, 92:00 PM, 93:00 PM, 94:00 PM, 95:00 PM, 96:00 PM, 97:00 PM, 98:00 PM, 99:00 PM, 100:00 PM, 101:00 PM, 102:00 PM, 103:00 PM, 104:00 PM, 105:00 PM, 106:00 PM, 107:00 PM, 108:00 PM, 109:00 PM, 110:00 PM, 111:00 PM, 112:00 PM, 113:00 PM, 114:00 PM, 115:00 PM, 116:00 PM, 117:00 PM, 118:00 PM, 119:00 PM, 120:00 PM, 121:00 PM, 122:00 PM, 123:00 PM, 124:00 PM, 125:00 PM, 126:00 PM, 127:00 PM, 128:00 PM, 129:00 PM, 130:00 PM, 131:00 PM, 132:00 PM, 133:00 PM, 134:00 PM, 135:00 PM, 136:00 PM, 137:00 PM, 138:00 PM, 139:00 PM, 140:00 PM, 141:00 PM, 142:00 PM, 143:00 PM, 144:00 PM, 145:00 PM, 146:00 PM, 147:00 PM, 148:00 PM, 149:00 PM, 150:00 PM, 151:00 PM, 152:00 PM, 153:00 PM, 154:00 PM, 155:00 PM, 156:00 PM, 157:00 PM, 158:00 PM, 159:00 PM, 160:00 PM, 161:00 PM, 162:00 PM, 163:00 PM, 164:00 PM, 165:00 PM, 166:00 PM, 167:00 PM, 168:00 PM, 169:00 PM, 170:00 PM, 171:00 PM, 172:00 PM, 173:00 PM, 174:00 PM, 175:00 PM, 176:00 PM, 177:00 PM, 178:00 PM, 179:00 PM, 180:00 PM, 181:00 PM, 182:00 PM, 183:00 PM, 184:00 PM, 185:00 PM, 186:00 PM, 187:00 PM, 188:00 PM, 189:00 PM, 190:00 PM, 191:00 PM, 192:00 PM, 193:00 PM, 194:00 PM, 195:00 PM, 196:00 PM, 197:00 PM, 198:00 PM, 199:00 PM, 200:00 PM, 201:00 PM, 202:00 PM, 203:00 PM, 204:00 PM, 205:00 PM, 206:00 PM, 207:00 PM, 208:00 PM, 209:00 PM, 210:00 PM, 211:00 PM, 212:00 PM, 213:00 PM, 214:00 PM, 215:00 PM, 216:00 PM, 217:00 PM, 218:00 PM, 219:00 PM, 220:00 PM, 221:00 PM, 222:00 PM, 223:00 PM, 224:00 PM, 225:00 PM, 226:00 PM, 227:00 PM, 228:00 PM, 229:00 PM, 230:00 PM, 231:00 PM, 232:00 PM, 233:00 PM, 234:00 PM, 235:00 PM, 236:00 PM, 237:00 PM, 238:00 PM, 239:00 PM, 240:00 PM, 241:00 PM, 242:00 PM, 243:00 PM, 244:00 PM, 245:00 PM, 246:00 PM, 247:00 PM, 248:00 PM, 249:00 PM, 250:00 PM, 251:00 PM, 252:00 PM, 253:00 PM, 254:00 PM, 255:00 PM, 256:00 PM, 257:00 PM, 258:00 PM, 259:00 PM, 260:00 PM, 261:00 PM, 262:00 PM, 263:00 PM, 264:00 PM, 265:00 PM, 266:00 PM, 267:00 PM, 268:00 PM, 269:00 PM, 270:00 PM, 271:00 PM, 272:00 PM, 273:00 PM, 274:00 PM, 275:00 PM, 276:00 PM, 277:00 PM, 278:00 PM, 279:00 PM, 280:00 PM, 281:00 PM, 282:00 PM, 283:00 PM, 284:00 PM, 285:00 PM, 286:00 PM, 287:00 PM, 288:00 PM, 289:00 PM, 290:00 PM, 291:00 PM, 292:00 PM, 293:00 PM, 294:00 PM, 295:00 PM, 296:00 PM, 297:00 PM, 298:00 PM, 299:00 PM, 300:00 PM, 301:00 PM, 302:00 PM, 303:00 PM, 304:00 PM, 305:00 PM, 306:00 PM, 307:00 PM, 308:00 PM, 309:00 PM, 310:00 PM, 311:00 PM, 312:00 PM, 313:00 PM, 314:00 PM, 315:00 PM, 316:00 PM, 317:00 PM, 318:00 PM, 319:00 PM, 320:00 PM, 321:00 PM, 322:00 PM, 323:00 PM, 324:00 PM, 325:00 PM, 326:00 PM, 327:00 PM, 328:00 PM, 329:00 PM, 330:00 PM, 331:00 PM, 332:00 PM, 333:00 PM, 334:00 PM, 335:00 PM, 336:00 PM, 337:00 PM, 338:00 PM, 339:00 PM, 340:00 PM, 341:00 PM, 342:00 PM, 343:00 PM, 344:00 PM, 345:00 PM, 346:00 PM, 347:00 PM, 348:00 PM, 349:0

CHAIN OF CUSTODY RECORD

Page 9 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only										ATLCOCC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt									
		Condition		Y	N	Condition		Y	N		
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED		<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (VOLUME)		<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> GSO		3. CONTAINER IMPACT		<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP, deg C:					
<input type="checkbox"/> Other:		4. SEALED		<input type="checkbox"/>	<input type="checkbox"/>						

Company: TRC		Address: 9685 RESEARCH DRIVE		Tel:	
City: IRVINE		State: CA		Zip: 92612	
Fax:		SEND INVOICE TO:		Email:	
SEND REPORT TO:		Attn:		X same as SEND REPORT TO	
Email:		Company:			
Company:		Address:			
Address:		City:		State:	
City:		Zip:		Zip:	

Project Name:						Special Instructions/Comments:									
Quote No: EIGI131															
Project No.: 265642		PO #: 100816													
Sampler: R SURGENCY															
ITEM	Lab No.	Sample Description			Date	Time									
		Sample ID / Location													
1	KO9222-87	V-17d-2.5			11-21-16	1258									
2	-82	AHD-3c-o.25				1330									
3	-83	H-2a-o.5				1340									
4	-84	H-2a-2.5				1342									
5	-85	H-2a-3.5				1344									
6	-86	H-2b-o.5				1346									
7	-87	H-2b-2.5				1348									
8	-88	H-2b-3.5				1350									
9	-89	H-2c-o.5				1352									
10	-90	H-2c-2.5				1354									

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following samples will be received the following Business day at 8:00 AM:
TAT = 0 - 30% SURCHARGE SAME BUSINESS DAY (if received by 9:00 AM)
TAT = 1 - 100% SURCHARGE NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2 - 50% SURCHARGE 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3 - 30% SURCHARGE 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4 - 20% SURCHARGE 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5 - NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)

4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT to 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab ... ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.

7. Electronic records maintained for five (5) years from report date.
8. Hard copy records will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested. Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested.
- Hard copy and regenerated EODs: \$17.50 per hard copy/report requested; \$50.00 per regenerated/reforma; ed report; \$35 per reprocessed EOD.
10. Rush TAT/STC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____

Signature _____

Date: 11/21/16 Time: 1550

Date: _____ Time: _____

Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) Paula Lawrence

Relinquished by: (Signature and Printed Name) _____

Relinquished by: (Signature and Printed Name) _____

Date: _____ Time: _____

Date: _____ Time: _____

Date: _____ Time: _____

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, November 23, 2016 5:25 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Rachelle Arada
Subject: Re: Roosevelt HS, 265642
Attachments: image002.jpg

Yes that is correct.

Thanks,

John Nordenstam
TRC Solutions, Inc.
(949) 283-4754 cell

Sent from my iPhone

> On Nov 23, 2016, at 5:21 PM, Carmen Aguila <Carmen@atlglobal.com> wrote:
>
> Hi John,
>
> As discussed, the correct ID for this sample is AUD-3a-2.5. Please reply to confirm.
>
>
> Thank you,
> Carmen
>
> From: Carmen Aguila
> Sent: Wednesday, November 23, 2016 5:04 PM
> To: 'jnordenstam@trcsolutions.com'
> Cc: customer.relations@atlglobal.com; Rachelle Arada
> Subject: Roosevelt HS, 265642
>
> Hi John,
>
> The sample collected at 0814 for the attached CoC -indicated as AUD-3b-2.5 was received
labeled AUD-3a-2.5. Please advise.
>
>
> Thank you,
> Carmen Aguila
> Sample Control
> [atl logo]Advanced Technology Laboratories
> www.atlglobal.com<<http://www.atlglobal.com>>
> Tel: (562) 989-4045 ext. 245
> Fax: (562) 989-4040
> Advanced Technology Laboratories is a full-service environmental lab
> providing organic and inorganic analyses of soil, water, wastewater, storm water and
hazardous waste samples. ATL is accredited by the State of California, NELAP and State of
Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL
takes pride in providing our customers with quick turnaround time, excellent customer service
and defensible data while offering very competitive rates. Advanced Technology Labs - Your
Partner for Quality Environmental Testing This message is intended for the use of the
individual or entity to which it is addressed. This may contain information that is

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Friday, December 02, 2016 11:19 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected November 21, 2016
Attachments: DOC120216-001.pdf

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on November 21, 2016, at LAUSD Roosevelt High School (see attachment):

- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and/or Lead (EPA Method 6010B) as specified below.
 - AUD-4-0.25 - Lead
 - AUD-6C-0.25 - Lead
 - W-14b-2.5 - Lead
 - W-14c-0.5 - Lead
 - X-14c-2.5 - Lead
 - V-16b-0.5 - Lead
 - X-17b-0.5 - Arsenic
 - Y-17d-0.5 - Arsenic
 - H-2c-2.5 - Lead
 - H-2d-3.5 - Lead

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

CHAIN OF CUSTODY RECORD

Page 1 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only
 ATLCCOC Ver: 201-00715

Method of Transport		Sample Conditions Upon Receipt	
Client	Condition	Y	N
<input checked="" type="checkbox"/> ATL	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

Company: **TRC** Address: **9625 RESEARCH DR** City: **IRVINE** State: **CA** Zip: **92618**

Attn: **JOHN MORDENFARM** Email: _____

Company: **TRC** Address: **9625 RESEARCH DRIVE** City: **IRVINE** State: **CA** Zip: **92618**

Project Name: **ROOSEVELT HS** Quote No: **E161131**

Project No.: **265642** PO #: **100916**

Sampler: **R. SUREANCY**

Special Instructions/Comments:		Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		REMARKS
ITEM	Lab No.	Sample ID / Location	Sample Description	8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	
1		ALD-3b-0.5	ALD	X				51514
2		ALD-3b-2.5	ALD	X				ALD
3		ALD-3a-0.5	ALD	X				ALD
4		ALD-3b-2.5 (3a)	ALD	X				ALD
5		ALD-3c-0.5	ALD	X				ALD
6		ALD-3c-2.5	ALD	X				ALD
7		ALD-4c-0.5	ALD	X				ALD
8		ALD-4c-0.5	ALD	X				ALD
9		ALD-4c-2.5	ALD	X				ALD
10		ALD-4-0.25 DUP	ALD	X				ALD

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: 11-21-16 Time: 1:55 PM

Relinquished by: (Signature and Printed Name) _____ Date: 11-21-16 Time: 1:55 PM

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 2 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only ATCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VIA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: **TRC** Address: **9635 RESEARCH DR** City: **IRVINE** State: **CA** Zip: **92612**

Attn: **JOHN HUGENSTAM** Email: **same as SEND REPORT TO**

Company: **TRC** Address: **9635 RESEARCH DRIVE** City: **IRVINE** State: **CA** Zip: **92612**

Project Name: ROOSEVELT HS		Quote No: E161131	Special Instructions/Comments:	
Project No: 265642		PO #: 100216		
Sampler: R SURRENY				
ITEM	Lab No.	Sample ID / Location	Date	Time
1		A1B-1B-0.25	11-21-16	0814
2		A1B-1B-0.5		0816
3		A1B-1B-0.5		0818
4		A1B-5-0.25		0850
5		A1B-5-0.25		0854
6		A1B-5-0.5		0856
7		A1B-5-2.5		0900
8		A1B-5B-0.25		0905
9		A1B-5B-0.5		0907
10		A1B-5B-2.5		0909

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Relinquished by: (Signature and Printed Name) **John Huguenstam** Date: **11-21-16** Time: **1550**

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

1. Samples received before 7:30 AM on Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples received after 3:00 PM on Monday - Friday; Saturday 12:00 PM to 5:00 PM.
3. The following turnaround time conditions apply:
TAT = 0: 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 25% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab - ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if storage is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reprocessed EDO.
10. Rush TAT/STC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

CHAIN OF CUSTODY RECORD

Page 4 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only
 ATLCCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VDA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: TRC Address: 9625 RESEARCH DR Tel: _____
 City: IRVINE State: CA Zip: 92618 Fax: _____
 SEND REPORT TO: _____
 Attn: _____ Email: _____
 Company: _____
 Address: _____
 City: _____ State: _____ Zip: _____

Project Name:		Quote No:		Special Instructions/Comments:																				
ROUSEVEIT INC		E161131																						
Project No:		PO #:																						
265642		100816																						
Sampler:		R. SURENCEY																						
ITEM	Lab No.	Sample Description			Encircle or Write Requested Analysis										Encircle Sample Matrix					TAT	#	Container	REMARKS	QA/QC <input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RW/QCB <input type="checkbox"/> Level IV
		Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LEAD 6006	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL						
1		MB-6a-2.5	11-21-16	1035									X						5	15	1	52n (1Ae)2: 6-NH ₄ OH; 2-HNO ₃ ; 3-H ₂ SO ₄ ; 4 = 4C; Preservative: 1-HCl; 2-NH ₄ OH; 3-H ₂ SO ₄ ; 4 = 4C; Material: 1-Glass; 2-Plastic; 3-Metal	4/10/10	
2		MB-6c-0.5		1040								X												
3		MB-6c-2.5		1042																				
4		W-14b-0.5		1115								X											Hold	
5	✓	W-14b-2.5	DUP	1116								X												
6		W-14b-3.5		1117								X												
7		W-14a-0.5		1120								X												
8		W-14a-2.5		1121								X												
9		W-14a-3.5		1122								X												
10	✓	W-14c-0.5	DUP	1125								X												

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 5 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VDA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: **TRC** Address: **9635 RESEARCH DR** City: **IRVINE** State: **CA** Zip: **92618** Tel: _____ Fax: _____

Attn: _____ Email: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Project Name: **ROSEVELT HIS** Quote No: **E161131**

Project No.: **265642** PO #: **10016**

Sampler: **R SURENCY**

ITEM	Lab No.	Sample Description		Special Instructions/Comments:	
		Sample ID / Location	Time	Date	Time
1		W-14c-2.5	1126	11-21-17	1126
2		W-14c-3.5	1127		1127
3		W-14d-0.5	1130		1130
4		W-14d-2.5	1131		1131
5		W-14d-3.5	1132		1132
6		X-14b-0.5	1140		1140
7		X-14b-2.5	1141		1141
8		X-14b-3.5	1142		1142
9		X-14c-0.5	1144		1144
10		X-14c-2.5 DVP	1145		1145

Encircle or Write Requested Analysis

Encircle Sample Matrix	Encircle or Write Requested Analysis
SOIL / SEDIMENT / SLUDGE	<input checked="" type="checkbox"/>
SOLIDS / WIPE / FILTER	<input checked="" type="checkbox"/>
WATER - DRINKING / GROUND	<input checked="" type="checkbox"/>
WATER - STORM / WASTE	<input checked="" type="checkbox"/>
AQUEOUS / LAYERED - OIL	<input checked="" type="checkbox"/>

Container: _____

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

REMARKS: _____

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: _____

Submitter Print Name: _____

Received by: (Signature and Printed Name) Date: 11-21-16 Time: 1550

Relinquished by: (Signature and Printed Name) Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 6 of 16

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO		2. HEADSPACE (VDA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: TRC		Address: 9635 RESEARCH DRIVE		Tel: _____	
Attn: JULIA HADENASTAM		City: IRVINE		State: CA Zip: 92613 Fax: _____	
Company:		SEND REPORT TO:		Email: _____	
Address:		SEND INVOICE TO:		Email: _____	
City:		State:		Zip:	

Project Name: ROSEVELT HS		Quote No: E16131		Special Instructions/Comments:	
Project No.: 265642		PO #: 100216			
Sampler: R. SURRENY					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1		X-14c-3.5		11-21-16	1146
2		X-14d-0.5			1148
3		X-14d-2.5			1150
4		X-14d-3.5			1152
5		V-16-0.25			1156
6		V-16a-0.25			1158
7		V-16c-0.5			1200
8		V-16c-2.5			1202
9		V-16b-0.25			1204
10		V-16b-0.5 DUP			1206

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)		SOIL / SEDIMENT / SLUDGE		TYPE: 1-Tube, 2-VOA, 3-Filtering, 4-Plating		Preservative: 1-HCl, 2-HNO ₃ , 3-H ₂ SO ₄ , 4-Ac	<input type="checkbox"/> Routine
8015 (GRO)				5-Isop, 6-Tedlar, 7 = Canister		Material: 1-Glass, 2-Plastic, 3-Metal	<input type="checkbox"/> Caltrans
8015 (DRO)							<input type="checkbox"/> Legal
8270 (Semi-volatiles)							<input type="checkbox"/> RW/QCB
8081 (Organochlorine Pesticides)							<input type="checkbox"/> Level IV
8082 (PCBs)							
6010 / 7000 (Title 22 Metals)							
TO-15							

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature	
Date: _____		Time: _____	
Received by: (Signature and Printed Name)		Date: _____	
Received by: (Signature and Printed Name)		Date: _____	
Received by: (Signature and Printed Name)		Date: _____	

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 0: 100% Surcharge SAME BUSINESS DAY if received by 9:00 AM
TAT = 1: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 3: 50% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 5TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and report fees: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage on hold is requested.
10. Rush TAT/STC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

ATLCC Ver. 20130715

For Laboratory Use Only

Sample Conditions Upon Receipt

Condition	Y	N
1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>
2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/>
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

Method of Transport

Client: ☐ ATL ☐ FedEx ☐ GSO ☐ Other: _____

Condition: ☐ 5. # OF SAMPLES MATCH COC ☐ 6. PRESERVED ☐ 7. COOLER TEMP. deg C: _____

CHAIN OF CUSTODY RECORD

Page 8 of 10

Instruction: Complete all shaded areas.

Company: **TRC** Address: **9685 RESEARCH DRIVE** City: **IRVINE** State: **CA** Zip: **92618** Tel: _____ Fax: _____

SEND REPORT TO: _____

Attn: _____ Email: _____

Company: _____ Address: _____ City: _____ State: **CA** Zip: **92618**

City: **IRVINE** State: **CA** Zip: **92618**

Project Name:		Quote No:	Special Instructions/Comments:	
ROOSEVELT HS		E161131		
Project No.:		PO #:		
265642		100216		
Sampler:				
R. SURRENCY				
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1		X-17b-2.5		1236
2		X-17c-0.5		1240
3		X-17c-2.5		1242
4		X-17d-0.5		1244
5		X-17d-2.5		1246
6		Y-17b-0.5		1250
7		Y-17b-2.5		1252
8		Y-17c-0.5		1254
9		Y-17c-2.5		1256
10	✓	Y-17d-0.5	DUP	1258

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		REMARKS
8260 / 624 (Volatiles)	8015 (GRO)	8015 (PRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	
						5-2n (IAC2), 6-MeOH, 7-MeOH, 8-MeOH, 9-MeOH, 10-MeOH, 11-MeOH, 12-MeOH, 13-MeOH, 14-MeOH, 15-MeOH, 16-MeOH, 17-MeOH, 18-MeOH, 19-MeOH, 20-MeOH, 21-MeOH, 22-MeOH, 23-MeOH, 24-MeOH, 25-MeOH, 26-MeOH, 27-MeOH, 28-MeOH, 29-MeOH, 30-MeOH, 31-MeOH, 32-MeOH, 33-MeOH, 34-MeOH, 35-MeOH, 36-MeOH, 37-MeOH, 38-MeOH, 39-MeOH, 40-MeOH, 41-MeOH, 42-MeOH, 43-MeOH, 44-MeOH, 45-MeOH, 46-MeOH, 47-MeOH, 48-MeOH, 49-MeOH, 50-MeOH, 51-MeOH, 52-MeOH, 53-MeOH, 54-MeOH, 55-MeOH, 56-MeOH, 57-MeOH, 58-MeOH, 59-MeOH, 60-MeOH, 61-MeOH, 62-MeOH, 63-MeOH, 64-MeOH, 65-MeOH, 66-MeOH, 67-MeOH, 68-MeOH, 69-MeOH, 70-MeOH, 71-MeOH, 72-MeOH, 73-MeOH, 74-MeOH, 75-MeOH, 76-MeOH, 77-MeOH, 78-MeOH, 79-MeOH, 80-MeOH, 81-MeOH, 82-MeOH, 83-MeOH, 84-MeOH, 85-MeOH, 86-MeOH, 87-MeOH, 88-MeOH, 89-MeOH, 90-MeOH, 91-MeOH, 92-MeOH, 93-MeOH, 94-MeOH, 95-MeOH, 96-MeOH, 97-MeOH, 98-MeOH, 99-MeOH, 100-MeOH

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: _____

Submitter Print Name: _____

Received by: (Signature and Printed Name) _____ Date: 11-21-16 Time: 1550

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 9 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOCC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/>	2. HEADSPACE (N/A)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/> Other:	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg C: <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company: **TRC** Address: **9625 RESEARCH DRIVE** Tel: _____
City: **IRVINE** State: **CA** Zip: **92612** Fax: _____
SEND REPORT TO: _____
Attn: _____ Email: _____
Company: _____
Address: _____
City: _____ State: _____ Zip: _____

Project Name: ROOSEVELT HS		Quote No.: E161131	Special Instructions/Comments:	
Project No.: 205642		PO #: 100216		
Sampler: R SURGENCY				
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1		Y-17a-2.5		11-21-16 1:58
2		ABD-3c-0.25		1330
3		H-2a-0.5		1340
4		H-2a-2.5		1342
5		H-2a-3.5		1344
6		H-2b-0.5		1346
7		H-2b-2.5		1348
8		H-2b-3.5		1350
9		H-2c-0.5		1352
10	✓	H-2c-2.5 DUP		1354

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____
Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) **TRC** Date: **11-21-16** Time: **1550**
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. The following turnaround time conditions apply:
TAT = 0: 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 20% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 10% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab - ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$10/sample/month if requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$10/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$25 per reprocessed EDD.
10. Rust, TCLP/SILC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Address: 9635 RESEARCH DRIVE

CUSTOMERPROJECT SAMPLES

Relinquished by: (Signature and Printed Name) <i>[Signature]</i> Date: 7-21-16	Received by: (Signature and Printed Name) <i>[Signature]</i> Date: 7-21-16	Time: 1550	Time:
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Time:	Time:
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Time:	Time:

TAT = 4 : 20% SURCHARGE 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontractor bid --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air



January 16, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604222
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on November 21, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AUD-3b-0.5	1604222-01	Soil	11/21/16 8:08	11/21/16 15:50
AUD-3a-0.5	1604222-03	Soil	11/21/16 8:12	11/21/16 15:50
AUD-3c-0.5	1604222-05	Soil	11/21/16 8:15	11/21/16 15:50
AUD-4c-0.5	1604222-08	Soil	11/21/16 8:38	11/21/16 15:50
AUD-5-0.25	1604222-14	Soil	11/21/16 8:50	11/21/16 15:50
AUD-5c-0.25	1604222-15	Soil	11/21/16 8:54	11/21/16 15:50
AUD-5b-0.5	1604222-19	Soil	11/21/16 9:07	11/21/16 15:50
AUD-6-0.25	1604222-21	Soil	11/21/16 9:20	11/21/16 15:50
AUD-6b-0.5	1604222-23	Soil	11/21/16 9:41	11/21/16 15:50
AUD-6c-0.25	1604222-25	Soil	11/21/16 9:44	11/21/16 15:50
W-14a-0.5	1604222-37	Soil	11/21/16 11:20	11/21/16 15:50
W-14c-2.5	1604222-41	Soil	11/21/16 11:26	11/21/16 15:50
AUD-3c-0.25	1604222-82	Soil	11/21/16 13:30	11/21/16 15:50
H-2c-0.5	1604222-89	Soil	11/21/16 13:52	11/21/16 15:50
AUD-6c-0.25 DUP	1604222-98	Soil	11/21/16 9:44	11/21/16 15:50



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

Client Sample ID AUD-3b-0.5

Lab ID: 1604222-01

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	0.057	20	B7A0221	01/09/2017	01/09/17 16:50	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-3a-0.5

Lab ID: 1604222-03

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	74	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:42	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-3c-0.5

Lab ID: 1604222-05

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:43	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-4c-0.5

Lab ID: 1604222-08

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:45	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

Client Sample ID AUD-5-0.25

Lab ID: 1604222-14

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	17	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:46	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-5c-0.25

Lab ID: 1604222-15

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.0	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:47	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

Client Sample ID AUD-5b-0.5

Lab ID: 1604222-19

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.7	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:48	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-6-0.25

Lab ID: 1604222-21

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.8	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:49	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-6b-0.5

Lab ID: 1604222-23

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:50	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-6c-0.25

Lab ID: 1604222-25

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.9	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:54	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID W-14a-0.5

Lab ID: 1604222-37

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.3	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:55	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID W-14c-2.5

Lab ID: 1604222-41

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.4	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 18:59	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-3c-0.25

Lab ID: 1604222-82

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:00	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID H-2c-0.5

Lab ID: 1604222-89

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.1	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:01	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID AUD-6c-0.25 DUP

Lab ID: 1604222-98

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.2	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 17:00	D1



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Report To : John Nordenstam

Reported : 01/16/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0221 - STLC_S Extraction									
Blank (B7A0221-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0221-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0221-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.14591		2.00000		107	80 - 120			
Duplicate (B7A0221-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	9.66282	1.0		9.72033	NR		0.593	20	
Duplicate (B7A0221-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	18.7563	1.0		18.6238	NR		0.709	20	
Matrix Spike (B7A0221-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.4314		2.00000	9.72033	85.6	44 - 130			
Matrix Spike (B7A0221-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	19.9180		2.00000	18.6238	64.7	44 - 130			
Matrix Spike Dup (B7A0221-MSD1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	11.7140		2.00000	9.72033	99.7	44 - 130	2.44	20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0222 - STLC_S Extraction

Blank (B7A0222-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0222-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0222-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.02733		2.00000		101	80 - 120			
Duplicate (B7A0222-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	1.21638	1.0		1.27187	NR		4.46	20	
Duplicate (B7A0222-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	8.34335	1.0		8.45527	NR		1.33	20	
Matrix Spike (B7A0222-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	3.57898		2.50000	1.27187	92.3	44 - 130			
Matrix Spike (B7A0222-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	10.1169		2.50000	8.45527	66.5	44 - 130			
Matrix Spike Dup (B7A0222-MSD1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Lead	3.70326		2.50000	1.27187	97.3	44 - 130	3.41	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0390 - STLC_S Extraction

Blank (B7A0390-BLK1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
Blank (B7A0390-BLK2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
LCS (B7A0390-BS1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.07992		2.00000		104	80 - 120			
Duplicate (B7A0390-DUP1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.12101	1.0		2.16394	NR		2.00	20	
Duplicate (B7A0390-DUP2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	7.06563	1.0		6.40204	NR		9.85	20	
Matrix Spike (B7A0390-MS1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	4.42433		2.50000	2.16394	90.4	44 - 130			
Matrix Spike (B7A0390-MS2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	9.15801		2.50000	6.40204	110	44 - 130			
Matrix Spike Dup (B7A0390-MSD1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	4.28918		2.50000	2.16394	85.0	44 - 130	3.10	20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

Notes and Definitions

D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TTLC mg/L	TCLP mg/L	
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC	TTL	STLC	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X			Perform laboratory analysis for STLC for lead
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X		Perform laboratory analysis for TCLP for lead
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160				Perform laboratory analysis for STLC for lead
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X			Perform laboratory analysis for STLC for lead
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X			Perform laboratory analysis for STLC for lead
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X			Perform laboratory analysis for STLC for lead
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19				Perform laboratory analysis for STLC for lead
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16				
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25				
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26				
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17				
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17				
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17				
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16				
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26				
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34				
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35				
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11				
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9				
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13				
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15				
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0				
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10				
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13				
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8				
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12				
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14				
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12				
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19				
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13				
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14				
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7				
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35				
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X			Perform laboratory analysis for STLC for lead
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X			Perform laboratory analysis for STLC for lead
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X			Perform laboratory analysis for STLC for lead
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74				
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61				
IM-3c-0-5	11/23/2016	1604246	0.5	66	X					Perform laboratory analysis for STLC for arsenic
IM-3c-2-5	11/23/2016	1604246	2.5	22	---					

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TtLC	STLC	TtLC	STLC	TtLC	STLC	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:				12	5.0	80	5.0			
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---	---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X	X	X	Perform laboratory analysis for STLC for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X	X	X	Perform laboratory analysis for STLC for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X	X	X	Perform laboratory analysis for STLC for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X	X	X	Perform laboratory analysis for STLC for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X	X	X	Perform laboratory analysis for STLC for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X	X	X	Perform laboratory analysis for STLC for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X	X	X	Perform laboratory analysis for STLC for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Units:				12	5.0	80	5.0			
Screening Level:										
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of proceeding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 30, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604222
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on November 21, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AUD-3b-0.5	1604222-01	Soil	11/21/16 8:08	11/21/16 15:50
AUD-3b-2.5	1604222-02	Soil	11/21/16 8:10	11/21/16 15:50
AUD-3a-0.5	1604222-03	Soil	11/21/16 8:12	11/21/16 15:50
AUD-3a-2.5	1604222-04	Soil	11/21/16 8:14	11/21/16 15:50
AUD-3c-0.5	1604222-05	Soil	11/21/16 8:15	11/21/16 15:50
AUD-3c-2.5	1604222-06	Soil	11/21/16 8:17	11/21/16 15:50
AUD-4c-2.5	1604222-09	Soil	11/21/16 8:40	11/21/16 15:50
AUD-5-0.25	1604222-14	Soil	11/21/16 8:50	11/21/16 15:50
AUD-5c-0.25	1604222-15	Soil	11/21/16 8:54	11/21/16 15:50
AUD-5b-0.5	1604222-19	Soil	11/21/16 9:07	11/21/16 15:50
AUD-5b-2.5	1604222-20	Soil	11/21/16 9:09	11/21/16 15:50
AUD-6-0.25	1604222-21	Soil	11/21/16 9:20	11/21/16 15:50
AUD-6b-0.5	1604222-23	Soil	11/21/16 9:41	11/21/16 15:50
AUD-6b-2.5	1604222-24	Soil	11/21/16 9:42	11/21/16 15:50
X-17b-2.5	1604222-71	Soil	11/21/16 12:36	11/21/16 15:50
Y-17c-2.5	1604222-79	Soil	11/21/16 12:56	11/21/16 15:50
AUD-3c-0.25	1604222-82	Soil	11/21/16 13:30	11/21/16 15:50
AUD-6c-0.25 DUP	1604222-98	Soil	11/21/16 9:44	11/21/16 15:50



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AUD-3b-0.5

Lab ID: 1604222-01

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:08	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-3b-2.5

Lab ID: 1604222-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.7	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:33	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-3a-0.5

Lab ID: 1604222-03

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.7	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:10	D1



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-3a-2.5

Lab ID: 1604222-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	53	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:39	



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-3c-0.5

Lab ID: 1604222-05

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.28	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:13	D1



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-3c-2.5

Lab ID: 1604222-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	42	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:40	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-4c-2.5

Lab ID: 1604222-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	18	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:41	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AUD-5-0.25

Lab ID: 1604222-14

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.040	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:15	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-5c-0.25

Lab ID: 1604222-15

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:17	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-5b-0.5

Lab ID: 1604222-19

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:23	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-5b-2.5

Lab ID: 1604222-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	28	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:42	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AUD-6-0.25

Lab ID: 1604222-21

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.11	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:26	D1, J



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AUD-6b-0.5

Lab ID: 1604222-23

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:28	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-6b-2.5

Lab ID: 1604222-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.5	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:46	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID X-17b-2.5

Lab ID: 1604222-71

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 13:47	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID Y-17c-2.5

Lab ID: 1604222-79

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 13:48	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AUD-3c-0.25

Lab ID: 1604222-82

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.015	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:30	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AUD-6c-0.25 DUP

Lab ID: 1604222-98

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0627	01/21/2017	01/23/17 11:33	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0800 - EPA 3050B_S

Blank (B7A0800-BLK1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	ND	1.0			NR				
Lead	0.127456	1.0			NR				J

LCS (B7A0800-BS1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	44.5704	1.0	50.0000		89.1	80 - 120			
Lead	45.4439	1.0	50.0000		90.9	80 - 120			

Duplicate (B7A0800-DUP1)

Source: 1604222-02

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	0.765775	1.0		0.718222	NR		6.41	20	J
Lead	7.29464	1.0		7.74579	NR		6.00	20	

Matrix Spike (B7A0800-MS1)

Source: 1604222-02

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	94.2476	1.0	125.000	0.718222	74.8	59 - 103			
Lead	107.842	1.0	125.000	7.74579	80.1	34 - 129			

Matrix Spike Dup (B7A0800-MSD1)

Source: 1604222-02

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	91.1902	1.0	125.000	0.718222	72.4	59 - 103	3.30	20	
Lead	100.378	1.0	125.000	7.74579	74.1	34 - 129	7.17	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0627 - EPA 3010A_S

Blank (B7A0627-BLK1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead ND 0.050 NR

LCS (B7A0627-BS1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 1.03480 0.050 1.00000 103 80 - 120

Duplicate (B7A0627-DUP1)

Source: 1603729-16

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 0.542394 0.25 0.468285 NR 14.7 20

Matrix Spike (B7A0627-MS1)

Source: 1603729-16

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 3.01524 0.25 2.50000 0.468285 102 78 - 109

Matrix Spike Dup (B7A0627-MSD1)

Source: 1603729-16

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 3.00022 0.25 2.50000 0.468285 101 78 - 109 0.500 20



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 18, 2017 2:21 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Rachelle – we need to conduct additional analyses for TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 44 samples to be analyzed for TCLP for lead. Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L	
Units: Screening Level:									
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	92	5.5	X	Perform laboratory analysis for TCLP for lead
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	86	5.8	X	Perform laboratory analysis for TCLP for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	110	4.7	---	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	280	16	X	Perform laboratory analysis for TCLP for lead
B-6c-0.5	11/23/2016	1604246	0.5	---	---	85	2.6	---	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	190	3.9	---	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	---	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	3.3	---	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	4.1	---	
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	0.029 J	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.3	X	Perform laboratory analysis for TCLP for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	3.6	---	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	0.095 J	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	3.0	---	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	6.6	X	Perform laboratory analysis for TCLP for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	ND<0.25	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	74	X	Perform laboratory analysis for TCLP for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	10	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	13	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	22	X	Perform laboratory analysis for TCLP for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	0.41	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	ND<1.0	---	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	17	X	Perform laboratory analysis for TCLP for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	0.59	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	9.7	X	Perform laboratory analysis for TCLP for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	6.0	X	Perform laboratory analysis for TCLP for lead
AUD-6-0.25	11/21/2016	1604222	0.25	---	---	160	7.8	X	Perform laboratory analysis for TCLP for lead
AUD-6-0.5	10/16/2016	1603634	0.5	5.2	---	670	26	1.5	

Table 2 DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California												
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods								Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B						
				TTL	STLC	TTL	STLC	TTL	STLC	TCLP		
				mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/L		
Units:												
Screening Level:												
AUD-6b-0.5	11/21/2016	1604222	0.5	12	5.0	80	5.0	160	13	X	Perform laboratory analysis for TCLP for lead	
AUD-6c-0.25	11/21/2016	1604222	0.25	--	--	--	--	110	3.9	--		
AUD-6c-0.25 DUP	11/21/2016	1604222	0.25	--	--	--	--	82	6.2	X	Perform laboratory analysis for TCLP for lead	
AA1917-4-2.5	10/29/2016	1603827	2.5	2.5	--	220	--	19	0.52 J	--		
AA2684-2-0.5	10/29/2016	1603827	0.5	18	--	--	--	16	--	--		
AA2684-2-2.5	10/29/2016	1603827	2.5	20	--	25	--	25	--	--		
AA2684-3-2.5	10/29/2016	1603827	2.5	33	--	--	--	--	--	--		
AA2684-6-0.5	12/21/2016	1604849	0.5	27	--	--	--	--	--	--		
AA2684-6-0.5 DUP	12/21/2016	1604849	0.5	28	--	--	--	--	--	--		
AA2684-6-2.5	12/21/2016	1604849	2.5	28	--	--	--	--	--	--		
AA2684-6-3.5	12/21/2016	1604849	3.5	23	--	--	--	--	--	--		
AA2543-1-2.5	10/29/2016	1603827	2.5	34	--	26	--	17	--	--		
AA2543-2-0.5	10/29/2016	1603827	0.5	23	--	17	--	17	--	--		
AA2543-2-2.5	10/29/2016	1603827	2.5	25	--	17	--	17	--	--		
AA2543-2-2.5 DUP	10/29/2016	1603827	2.5	24	--	16	--	16	--	--		
AA2543-5-0.5	10/29/2016	1603827	0.5	25	--	26	--	34	--	--		
AA2543-5-2.5	10/29/2016	1603827	2.5	39	--	34	--	34	--	--		
AA2543-6-0.5	10/29/2016	1603827	0.5	19	--	35	--	35	--	--		
AA2543-6-2.5	10/29/2016	1603827	2.5	23	--	11	--	11	--	--		
AA2038-1-0.5	10/30/2016	1603843	0.5	23	--	7.9	--	13	--	--		
AA2038-1-2.5	10/30/2016	1603843	2.5	14	--	13	--	15	--	--		
AA2038-2-0.5	10/30/2016	1603843	0.5	31	--	8.0	--	10	--	--		
AA2038-2-2.5	10/30/2016	1603843	2.5	13	--	10	--	13	--	--		
AA2038-3-0.5	10/30/2016	1603843	0.5	27	--	13	--	9.8	--	--		
AA2038-3-2.5	10/30/2016	1603843	2.5	16	--	12	--	12	--	--		
AA2038-4-0.5	10/30/2016	1603843	0.5	20	--	12	--	14	--	--		
AA2038-4-2.5	10/30/2016	1603843	2.5	21	--	12	--	14	--	--		
AA2038-4-2.5 DUP	10/30/2016	1603843	2.5	12	--	12	--	14	--	--		
AA2038-7-0.5	12/21/2016	1604849	0.5	24	--	14	--	14	--	--		
AA2249-1-0.5	10/30/2016	1603843	0.5	24	--	14	--	14	--	--		
AA2249-1-2.5	10/30/2016	1603843	2.5	33	--	12	--	12	--	--		
AA2249-2-0.5	10/30/2016	1603843	0.5	22	--	19	--	19	--	--		
AA2249-2-2.5	10/30/2016	1603843	2.5	35	--	13	--	13	--	--		
AA2249-2-2.5 DUP	10/30/2016	1603843	2.5	31	--	14	--	14	--	--		
FS-2-0.5	10/23/2016	1603435	0.5	20	--	6.7	--	35	--	--		
IM-1-2.5	10/30/2016	1603842	2.5	20	--	35	--	160	13	X	Perform laboratory analysis for TCLP for lead	
IM-2-2.5	10/30/2016	1603842	2.5	4.6	--	100	--	100	6.8	X	Perform laboratory analysis for TCLP for lead	
IM-2b-0.5	11/23/2016	1604246	0.5	17	--	150	--	150	6.3	X	Perform laboratory analysis for TCLP for lead	
IM-2b-0.5 DUP	11/23/2016	1604246	0.5	17	--	74	--	74	--	--		
IM-3-0.5	10/30/2016	1603842	0.5	25	--	61	--	61	--	--		
IM-3-0.5 DUP	10/30/2016	1603842	0.5	22	--	---	--	---	--	--		
IM-3c-0.5	11/23/2016	1604246	0.5	66	4.1	---	--	---	--	--		

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods				Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B		
				TTLC	STLC	TTLC	STLC	
			Units:	mg/kg	mg/L	mg/kg	mg/L	
Screening Level:								
IM-3c-2.5	11/23/2016	1604246	2.5	22	---	---	---	
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	10	Perform laboratory analysis for TCLP for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	5.4	Perform laboratory analysis for TCLP for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	4.5	
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	140	Perform laboratory analysis for TCLP for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	5.6	Perform laboratory analysis for TCLP for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	6.3	Perform laboratory analysis for TCLP for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	26	Perform laboratory analysis for TCLP for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	32	Perform laboratory analysis for TCLP for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	22	Perform laboratory analysis for TCLP for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	11	Perform laboratory analysis for TCLP for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	25	Perform laboratory analysis for TCLP for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	9.0	Perform laboratory analysis for TCLP for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	12	Perform laboratory analysis for TCLP for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	25	Perform laboratory analysis for TCLP for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	14	Perform laboratory analysis for TCLP for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	8.5	Perform laboratory analysis for TCLP for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	4.9	
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	9.7	Perform laboratory analysis for TCLP for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	2.2	
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	8.5	Perform laboratory analysis for TCLP for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	4.8	
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	7.3	Perform laboratory analysis for TCLP for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	11	Perform laboratory analysis for TCLP for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	7.4	Perform laboratory analysis for TCLP for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	3.6	
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	6.0	Perform laboratory analysis for TCLP for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	190	Perform laboratory analysis for TCLP for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	120	Perform laboratory analysis for TCLP for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	6.5	Perform laboratory analysis for TCLP for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	0.78 J	
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	1.9	

DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California									
Table 2									
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TTLC mg/L	Comments
Screening Level:				Units:					
R15d-0.5	11/22/2016	1604231	0.5	12	5.0	80	5.0	X	Perform laboratory analysis for TCLP for lead
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	2.2	---	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	17	X	Perform laboratory analysis for TCLP for lead
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	1.3	---	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	3.4	---	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---	
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---	
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	1.5	---	
X-17-0.5	10/22/2016	1603729	0.5	14	---	90	---	---	
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---	
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---	
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---	
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---	
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---	
Notes:									
Table summarizes arsenic and lead laboratory analytical reports for soil samples.									
Samples with detectable concentrations presented in bold font .									
Arsenic screening level based on California background level.									
TTTLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).									
OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).									
LAUSD = Los Angeles Unified School District									
ID = Identification									
bgs = below ground surface									
EPA = Environmental Protection Agency									
--- = not analyzed									
mg/kg = milligrams per kilogram									
mg/L = milligrams per liter									
μg/L = micrograms per liter									
DUP = Duplicate of preceding sample									
Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.									
Result is an estimated concentration.									
(1) = 3.8J Aroclor 1260									
(2) = 11J Aroclor 1260									

Notes:
 Table summarizes arsenic and lead laboratory analytical reports for soil samples.
 Samples with detectable concentrations presented in bold font.
 Arsenic screening level based on California background level.
 TTLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3, Table 1 (DTSC, 2015).
 OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).

LAUSD = Los Angeles Unified School District
 ID = Identification
 bgs = below ground surface
 EPA = Environmental Protection Agency
 --- = not analyzed

mg/kg = milligrams per kilogram
 mg/L = milligrams per liter
 µg/L = micrograms per liter
 DUP = Duplicate of preceding sample
 J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
 Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
 (2) = 11J Aroclor 1260



Diane Galvan

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, January 23, 2017 5:34 PM
To: Diane Galvan
Cc: Rachelle Arada; customer.relations@atiglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Diane – you are correct; there is not a sample labeled P16c-3.5 My mistake – sorry for the confusion.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Diane Galvan [mailto:Diane@atiglobal.com]
Sent: Monday, January 23, 2017 1:43 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: Rachelle Arada <Rachelle@atiglobal.com>; customer.relations@atiglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Hi John,

I have received your request but don't see sample labeled P16c-3.5 under ATL WO# 1604231 in our system.

Thanks,

Diane

From: Nordenstam, John [mailto:jnordenstam@trcsolutions.com]
Sent: Monday, January 23, 2017 11:45 AM
To: Diane Galvan
Subject: FW: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Diane – I understand that Rachelle is out of the office. Please see email below for request for additional analyses of samples from LAUSD Roosevelt HS. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John

Sent: Monday, January 23, 2017 11:21 AM

To: Rachelle Arada <Rachelle@atlglobal.com>

Cc: Edric Caballero (edric@atlglobal.com) <edric@atlglobal.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>

Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – we need to conduct additional analyses for arsenic and lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 35 samples to be analyzed for arsenic and/or lead. Refer to the summary of sample IDs and corresponding lab report numbers presented below. Please include TRC PO # 100816 on your invoice.

Area 3 (Lab report #1604231)

- B-13a-2.5 for As and Pb
- B-13b-2.5 for As
- B-13c-2.5 for Pb
- B-13d-0.5 for As
- B-13d-2.5 for As
- B-14a-2.5 for As
- B-14b-2.5 for As
- B-15a-2.5 for As
- B-15b-0.5 for Pb
- B-15b-2.5 for Pb
- B-16a-2.5 for As
- C-13c-2.5 for Pb
- C-17b-2.5 for Pb

Area 5 (Lab report #1604222)

- AUD-3a-2.5 for Pb
- AUD-3b-2.5 for Pb
- AUD-3c-2.5 for Pb
- AUD-4c-2.5 for Pb
- AUD-5b-2.5 for Pb
- AUD-6b-2.5 for Pb

Area 6

- CR1-2d-2.5 for Pb (Lab report #1604246)
- CR1-4b-2.5 for Pb (Lab report #1604246)
- P16c-2.5 for Pb (Lab report #1604231)
- P16c-3.5 for Pb (Lab report #1604231)
- AA2038-7-0.5 for Pb (Lab report # 1604849)
- AA2038-7-2.5 for Pb (Lab report # 1604849)
- AA2038-8-0.5 for Pb (Lab report # 1604849)
- AA2038-8-2.5 for Pb (Lab report # 1604849)
- AA2038-9-0.5 for Pb (Lab report # 1604849)
- AA2038-9-2.5 for Pb (Lab report # 1604849)
- AA2543-7-0.5 for Pb (Lab report # 1604849)
- AA2543-7-2.5 for Pb (Lab report # 1604849)
- AA2543-8-0.5 for Pb (Lab report # 1604849)
- AA2543-8-2.5 for Pb (Lab report # 1604849)

Area 9 (Lab report #1604222)

- X-17b-2.5 As
- Y-17c-2.5 As

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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December 15, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604231
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on November 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small initial "ER" written below the main signature.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 12/15/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-13a-0.5	1604231-01	Soil	11/22/16 7:42	11/22/16 18:30
B-13c-0.5	1604231-03	Soil	11/22/16 7:48	11/22/16 18:30
B-13b-0.5	1604231-05	Soil	11/22/16 7:53	11/22/16 18:30
B-14c-0.5	1604231-07	Soil	11/22/16 7:57	11/22/16 18:30
B-14a-0.5	1604231-09	Soil	11/22/16 8:02	11/22/16 18:30
B-14b-0.5	1604231-11	Soil	11/22/16 8:08	11/22/16 18:30
B-15b-0.5	1604231-13	Soil	11/22/16 8:04	11/22/16 18:30
B-15a-0.5	1604231-15	Soil	11/22/16 8:08	11/22/16 18:30
B-15c-0.5	1604231-17	Soil	11/22/16 8:12	11/22/16 18:30
B-16a-0.5	1604231-19	Soil	11/22/16 8:20	11/22/16 18:30
B-16b-0.5	1604231-21	Soil	11/22/16 8:26	11/22/16 18:30
B-16c-0.5	1604231-23	Soil	11/22/16 8:33	11/22/16 18:30
C-17a-0.5	1604231-25	Soil	11/22/16 8:36	11/22/16 18:30
C-17b-0.5	1604231-27	Soil	11/22/16 8:40	11/22/16 18:30
C-17c-0.5	1604231-29	Soil	11/22/16 8:44	11/22/16 18:30
C-13b-0.5	1604231-31	Soil	11/22/16 8:35	11/22/16 18:30
C-13c-0.5	1604231-33	Soil	11/22/16 8:45	11/22/16 18:30
C-17d-0.5	1604231-35	Soil	11/22/16 8:48	11/22/16 18:30
B-13d-0.5	1604231-37	Soil	11/22/16 8:55	11/22/16 18:30
C-13d-0.5	1604231-39	Soil	11/22/16 9:05	11/22/16 18:30
FS-2b-0.5	1604231-41	Soil	11/22/16 10:30	11/22/16 18:30
FS-2c-0.5	1604231-43	Soil	11/22/16 10:40	11/22/16 18:30
AA1917-4c-0.5	1604231-45	Soil	11/22/16 11:03	11/22/16 18:30
AA1917-4c-2.5	1604231-46	Soil	11/22/16 11:10	11/22/16 18:30
AA1917-4c-3.5	1604231-47	Soil	11/22/16 11:15	11/22/16 18:30
AA1917-4b-0.5	1604231-48	Soil	11/22/16 11:16	11/22/16 18:30
AA1917-4b-2.5	1604231-49	Soil	11/22/16 11:18	11/22/16 18:30
AA1917-4b-3.5	1604231-50	Soil	11/22/16 11:20	11/22/16 18:30
AA1917-4d-0.5	1604231-51	Soil	11/22/16 11:25	11/22/16 18:30
AA1917-4d-2.5	1604231-52	Soil	11/22/16 11:27	11/22/16 18:30
AA1917-4d-3.5	1604231-53	Soil	11/22/16 11:30	11/22/16 18:30
P15a-0.5	1604231-54	Soil	11/22/16 11:55	11/22/16 18:30
P15a-2.5	1604231-55	Soil	11/22/16 11:57	11/22/16 18:30
P15a-3.5	1604231-56	Soil	11/22/16 12:00	11/22/16 18:30
P15b-0.5	1604231-57	Soil	11/22/16 12:02	11/22/16 18:30
P15b-2.5	1604231-58	Soil	11/22/16 12:05	11/22/16 18:30
P15b-3.5	1604231-59	Soil	11/22/16 12:07	11/22/16 18:30



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Reported : 12/15/2016

P15d-0.5	1604231-60	Soil	11/22/16 12:10	11/22/16 18:30
P15d-2.5	1604231-61	Soil	11/22/16 12:12	11/22/16 18:30
P15d-3.5	1604231-62	Soil	11/22/16 12:15	11/22/16 18:30
P16a-0.5	1604231-63	Soil	11/22/16 12:17	11/22/16 18:30
Q15a-0.5	1604231-65	Soil	11/22/16 12:18	11/22/16 18:30
Q15a-2.5	1604231-66	Soil	11/22/16 12:25	11/22/16 18:30
Q15a-3.5	1604231-67	Soil	11/22/16 12:27	11/22/16 18:30
P16c-0.5	1604231-68	Soil	11/22/16 12:23	11/22/16 18:30
P16b-0.5	1604231-70	Soil	11/22/16 12:28	11/22/16 18:30
Q15b-0.5	1604231-72	Soil	11/22/16 12:43	11/22/16 18:30
Q15d-0.5	1604231-74	Soil	11/22/16 12:50	11/22/16 18:30
R15-0.25	1604231-76	Soil	11/22/16 12:57	11/22/16 18:30
R15a-0.25	1604231-77	Soil	11/22/16 13:00	11/22/16 18:30
R15a-0.5	1604231-78	Soil	11/22/16 13:02	11/22/16 18:30
R15d-0.25	1604231-80	Soil	11/22/16 13:07	11/22/16 18:30
R15d-0.5	1604231-81	Soil	11/22/16 13:09	11/22/16 18:30
R15b-0.25	1604231-83	Soil	11/22/16 13:15	11/22/16 18:30
R15b-0.5	1604231-84	Soil	11/22/16 13:18	11/22/16 18:30
R15c-0.25	1604231-86	Soil	11/22/16 13:20	11/22/16 18:30
R15c-0.5	1604231-87	Soil	11/22/16 13:23	11/22/16 18:30
CRA-3c-0.5	1604231-89	Soil	11/22/16 14:00	11/22/16 18:30
CRA-2b-0.5	1604231-91	Soil	11/22/16 14:10	11/22/16 18:30
CRA-2b-2.5	1604231-92	Soil	11/22/16 14:12	11/22/16 18:30
CRA-2b-3.5	1604231-93	Soil	11/22/16 14:15	11/22/16 18:30
CRA-2d-0.5	1604231-94	Soil	11/22/16 14:17	11/22/16 18:30
CRA-2d-2.5	1604231-95	Soil	11/22/16 14:20	11/22/16 18:30
CRA-2d-3.5	1604231-96	Soil	11/22/16 14:22	11/22/16 18:30
CRA-3d-0.5	1604231-97	Soil	11/22/16 14:23	11/22/16 18:30
CRA-2c-0.5	1604231-99	Soil	11/22/16 14:29	11/22/16 18:30
CRA-2c-2.5	1604231-AA	Soil	11/22/16 14:32	11/22/16 18:30
CRA-2c-3.5	1604231-AB	Soil	11/22/16 14:35	11/22/16 18:30
EB-19	1604231-AC	Water	11/22/16 14:40	11/22/16 18:30
EB-20	1604231-AD	Water	11/22/16 14:45	11/22/16 18:30
B-14a-0.5 DUP	1604231-AE	Soil	11/22/16 8:02	11/22/16 18:30
B-16a-0.5 DUP	1604231-AF	Soil	11/22/16 8:20	11/22/16 18:30
B-16c-0.5 DUP	1604231-AG	Soil	11/22/16 8:33	11/22/16 18:30
AA1917-4c-2.5 DUP	1604231-AH	Soil	11/22/16 11:10	11/22/16 18:30
AA1917-4d-2.5 DUP	1604231-AI	Soil	11/22/16 11:27	11/22/16 18:30
P15d-2.5 DUP	1604231-AJ	Soil	11/22/16 12:12	11/22/16 18:30
Q15a-3.5 DUP	1604231-AK	Soil	11/22/16 12:27	11/22/16 18:30
R15-0.25 DUP	1604231-AL	Soil	11/22/16 12:57	11/22/16 18:30



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 12/15/2016

CRA-2d-0.5 DUP

1604231-AM

Soil

11/22/16 14:17

11/22/16 18:30

CRA-2d-2.5 DUP

1604231-AN

Soil

11/22/16 14:20

11/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID B-13a-0.5

Lab ID: 1604231-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	17	1.0	0.70	1	B6K1078	11/30/2016	12/01/16 18:35	
Lead	96	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:35	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID B-13c-0.5

Lab ID: 1604231-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.8	1.0	0.70	1	B6K1078	11/30/2016	12/01/16 18:36	
Lead	99	1.0	0.11	1	B6K1078	11/30/2016	12/01/16 18:36	



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Project Number : Roosevelt HS, 265642
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Reported : 12/15/2016

Client Sample ID B-13b-0.5

Lab ID: 1604231-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	5.0	3.5	5	B6K1078	11/30/2016	12/02/16 10:42	D5
Lead	27	5.0	0.56	5	B6K1078	11/30/2016	12/02/16 10:42	D5



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID B-14c-0.5

Lab ID: 1604231-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	0.70	1	B6K1078	11/30/2016	12/01/16 18:39	



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Client Sample ID B-14a-0.5

Lab ID: 1604231-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B6K1078	11/30/2016	12/01/16 18:40	



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Client Sample ID B-14b-0.5

Lab ID: 1604231-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 18:43	



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Client Sample ID B-15b-0.5

Lab ID: 1604231-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 18:50	



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Client Sample ID B-15a-0.5

Lab ID: 1604231-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	17	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 18:51	



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Client Sample ID B-15c-0.5

Lab ID: 1604231-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 18:52	



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Client Sample ID B-16a-0.5

Lab ID: 1604231-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	15	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 18:53	
Lead	49	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 18:53	



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Client Sample ID B-16b-0.5

Lab ID: 1604231-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 18:54	
Lead	69	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 18:54	



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Reported : 12/15/2016

Client Sample ID B-16c-0.5

Lab ID: 1604231-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 18:55	
Lead	13	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 18:55	



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Client Sample ID C-17a-0.5

Lab ID: 1604231-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	55	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 18:57	



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Client Sample ID C-17b-0.5

Lab ID: 1604231-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	99	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 18:58	



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Client Sample ID C-17c-0.5

Lab ID: 1604231-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	42	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:01	



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Client Sample ID C-13b-0.5

Lab ID: 1604231-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	37	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:03	



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Client Sample ID C-13c-0.5

Lab ID: 1604231-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	110	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:04	



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Client Sample ID C-17d-0.5

Lab ID: 1604231-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	51	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:05	



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Client Sample ID B-13d-0.5

Lab ID: 1604231-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	17	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:06	



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Client Sample ID C-13d-0.5

Lab ID: 1604231-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	48	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:07	



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Client Sample ID FS-2b-0.5

Lab ID: 1604231-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 19:08	



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Client Sample ID FS-2c-0.5

Lab ID: 1604231-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 19:09	



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Reported : 12/15/2016

Client Sample ID AA1917-4c-0.5

Lab ID: 1604231-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.0	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:10	



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Client Sample ID AA1917-4c-2.5

Lab ID: 1604231-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.0	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 19:12	



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Client Sample ID AA1917-4c-3.5

Lab ID: 1604231-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.9	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:02	



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Client Sample ID AA1917-4b-0.5

Lab ID: 1604231-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.8	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:07	



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Client Sample ID AA1917-4b-2.5

Lab ID: 1604231-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.5	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:08	



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Client Sample ID AA1917-4b-3.5

Lab ID: 1604231-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	18	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:09	



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Client Sample ID AA1917-4d-0.5

Lab ID: 1604231-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.4	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:13	



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Client Sample ID AA1917-4d-2.5

Lab ID: 1604231-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.7	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:14	



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Client Sample ID AA1917-4d-3.5

Lab ID: 1604231-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.9	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:15	



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Client Sample ID P15a-0.5

Lab ID: 1604231-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	39	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:16	



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Client Sample ID P15a-2.5

Lab ID: 1604231-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	150	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:17	



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Client Sample ID P15a-3.5

Lab ID: 1604231-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:18	



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Client Sample ID P15b-0.5

Lab ID: 1604231-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	190	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:19	



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Client Sample ID P15b-2.5

Lab ID: 1604231-58

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	55	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:21	



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Client Sample ID P15b-3.5

Lab ID: 1604231-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.6	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:22	



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Client Sample ID P15d-0.5

Lab ID: 1604231-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	140	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:23	



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Client Sample ID P15d-2.5

Lab ID: 1604231-61

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	440	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:26	



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Client Sample ID P15d-3.5

Lab ID: 1604231-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	39	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:28	



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Client Sample ID P16a-0.5

Lab ID: 1604231-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	31	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:29	



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Client Sample ID Q15a-0.5

Lab ID: 1604231-65

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	46	1.0	0.11	1	B6K1080	11/30/2016	12/02/16 12:30	



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Client Sample ID Q15a-2.5

Lab ID: 1604231-66

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4200	5.0	0.56	5	B6K1080	11/30/2016	12/05/16 12:15	D6



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Client Sample ID Q15a-3.5

Lab ID: 1604231-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	190	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:36	



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Client Sample ID P16c-0.5

Lab ID: 1604231-68

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B6K1081	11/30/2016	12/02/16 12:42	
Lead	84	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:42	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID P16b-0.5

Lab ID: 1604231-70

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.2	1.0	0.70	1	B6K1081	11/30/2016	12/02/16 12:44	
Lead	34	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:44	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID Q15b-0.5

Lab ID: 1604231-72

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	56	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:45	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID Q15d-0.5

Lab ID: 1604231-74

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	23	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:46	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID R15-0.25

Lab ID: 1604231-76

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	95	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:47	



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Report To : John Nordenstam
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Client Sample ID R15a-0.25

Lab ID: 1604231-77

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	63	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:48	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
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Client Sample ID R15a-0.5

Lab ID: 1604231-78

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.4	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:49	



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Client Sample ID R15d-0.25

Lab ID: 1604231-80

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:50	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID R15d-0.5

Lab ID: 1604231-81

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	100	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:54	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID R15b-0.25

Lab ID: 1604231-83

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	31	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:55	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID R15b-0.5

Lab ID: 1604231-84

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	15	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:56	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID R15c-0.25

Lab ID: 1604231-86

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	61	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:57	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID R15c-0.5

Lab ID: 1604231-87

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	16	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 12:58	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID CRA-3c-0.5

Lab ID: 1604231-89

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6K1081	11/30/2016	12/02/16 12:59	



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Project Number : Roosevelt HS, 265642
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Reported : 12/15/2016

Client Sample ID CRA-2b-0.5

Lab ID: 1604231-91

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	89	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 13:01	



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Project Number : Roosevelt HS, 265642
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Reported : 12/15/2016

Client Sample ID CRA-2b-2.5

Lab ID: 1604231-92

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	720	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 13:02	



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Client Sample ID CRA-2b-3.5

Lab ID: 1604231-93

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	67	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 13:03	



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Client Sample ID CRA-2d-0.5

Lab ID: 1604231-94

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K1081	11/30/2016	12/02/16 13:04	
Lead	31	1.0	0.11	1	B6K1081	11/30/2016	12/02/16 13:04	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
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Client Sample ID CRA-2d-2.5

Lab ID: 1604231-95

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	44	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:10	



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Project Number : Roosevelt HS, 265642
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Client Sample ID CRA-2d-3.5

Lab ID: 1604231-96

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:14	



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Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID CRA-3d-0.5

Lab ID: 1604231-97

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B6K1082	11/30/2016	12/02/16 13:15	



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Client Sample ID CRA-2c-0.5

Lab ID: 1604231-99

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	54	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:16	



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Reported : 12/15/2016

Client Sample ID CRA-2c-2.5

Lab ID: 1604231-AA

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	39	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:17	



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Client Sample ID CRA-2c-3.5

Lab ID: 1604231-AB

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	120	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:21	



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Project Number : Roosevelt HS, 265642
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Client Sample ID EB-19

Lab ID: 1604231-AC

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K1088	11/30/2016	12/01/16 11:53	
Lead	ND	0.0050	0.0028	1	B6K1088	11/30/2016	12/01/16 11:53	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID EB-20

Lab ID: 1604231-AD

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K1088	11/30/2016	12/01/16 11:57	
Lead	ND	0.0050	0.0028	1	B6K1088	11/30/2016	12/01/16 11:57	



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Project Number : Roosevelt HS, 265642
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Client Sample ID B-14a-0.5 DUP

Lab ID: 1604231-AE

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	15	1.0	0.70	1	B6L0564	12/14/2016	12/15/16 12:04	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID B-16a-0.5 DUP

Lab ID: 1604231-AF

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	27	1.0	0.70	1	B6L0564	12/14/2016	12/15/16 12:11	
Lead	72	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:11	



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Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID B-16c-0.5 DUP

Lab ID: 1604231-AG

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.4	1.0	0.70	1	B6L0564	12/14/2016	12/15/16 12:12	
Lead	22	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:12	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
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Client Sample ID AA1917-4c-2.5 DUP

Lab ID: 1604231-AH

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.3	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:14	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Client Sample ID AA1917-4d-2.5 DUP

Lab ID: 1604231-AI

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.5	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:15	



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Report To : John Nordenstam
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Client Sample ID P15d-2.5 DUP

Lab ID: 1604231-AJ

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	110	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:16	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
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Client Sample ID Q15a-3.5 DUP

Lab ID: 1604231-AK

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	280	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:17	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
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Client Sample ID R15-0.25 DUP

Lab ID: 1604231-AL

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	19	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:18	



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Client Sample ID CRA-2d-0.5 DUP

Lab ID: 1604231-AM

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6L0564	12/14/2016	12/15/16 12:19	
Lead	73	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:19	



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Report To : John Nordenstam
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Client Sample ID CRA-2d-2.5 DUP

Lab ID: 1604231-AN

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	51	1.0	0.11	1	B6L0564	12/14/2016	12/15/16 12:20	



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Report To : John Nordenstam
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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K1078 - EPA 3050B_S									
Blank (B6K1078-BLK1)				Prepared: 11/30/2016 Analyzed: 12/1/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6K1078-BS1)				Prepared: 11/30/2016 Analyzed: 12/1/2016					
Arsenic	41.3561	1.0	50.0000		82.7	80 - 120			
Lead	42.4208	1.0	50.0000		84.8	80 - 120			
Duplicate (B6K1078-DUP1)				Source: 1604222-80 Prepared: 11/30/2016 Analyzed: 12/1/2016					
Arsenic	3.92015	1.0		4.72102	NR		18.5	20	
Lead	7.91634	1.0		7.92626	NR		0.125	20	
Matrix Spike (B6K1078-MS1)				Source: 1604222-80 Prepared: 11/30/2016 Analyzed: 12/1/2016					
Arsenic	89.0881	1.0	125.000	4.72102	67.5	59 - 103			
Lead	89.5694	1.0	125.000	7.92626	65.3	34 - 129			
Matrix Spike Dup (B6K1078-MSD1)				Source: 1604222-80 Prepared: 11/30/2016 Analyzed: 12/1/2016					
Arsenic	87.2942	1.0	125.000	4.72102	66.1	59 - 103	2.03	20	
Lead	84.9056	1.0	125.000	7.92626	61.6	34 - 129	5.35	20	



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Report To : John Nordenstam
Reported : 12/15/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1079 - EPA 3050B_S

Blank (B6K1079-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K1079-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	42.3415	1.0	50.0000		84.7	80 - 120			
Lead	43.6076	1.0	50.0000		87.2	80 - 120			

Duplicate (B6K1079-DUP1)

Source: 1604231-11

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	20.1940	1.0		18.7846	NR		7.23	20	
Lead	69.4333	1.0		157.204	NR		77.5	20	R

Matrix Spike (B6K1079-MS1)

Source: 1604231-11

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	109.982	1.0	125.000	18.7846	73.0	59 - 103			
Lead	156.103	1.0	125.000	157.204	-0.881	34 - 129			M1

Matrix Spike Dup (B6K1079-MSD1)

Source: 1604231-11

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	110.541	1.0	125.000	18.7846	73.4	59 - 103	0.507	20	
Lead	165.072	1.0	125.000	157.204	6.29	34 - 129	5.59	20	M1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1080 - EPA 3050B_S

Blank (B6K1080-BLK1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	ND	1.0			NR				
Lead	0.511460	1.0			NR				J

LCS (B6K1080-BS1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	42.7430	1.0	50.0000		85.5	80 - 120			
Lead	43.1378	1.0	50.0000		86.3	80 - 120			

Duplicate (B6K1080-DUP1)

Source: 1604231-47

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	3.29401	1.0		3.06572	NR		7.18	20	
Lead	2.75690	1.0		3.94877	NR		35.5	20	R

Matrix Spike (B6K1080-MS1)

Source: 1604231-47

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	81.5427	1.0	125.000	3.06572	62.8	59 - 103			
Lead	77.4138	1.0	125.000	3.94877	58.8	34 - 129			

Matrix Spike Dup (B6K1080-MSD1)

Source: 1604231-47

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	86.5076	1.0	125.000	3.06572	66.8	59 - 103	5.91	20	
Lead	79.4314	1.0	125.000	3.94877	60.4	34 - 129	2.57	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B6K1081 - EPA 3050B_S

Blank (B6K1081-BLK1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	ND	1.0			NR				
Lead	0.301782	1.0			NR				J

LCS (B6K1081-BS1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	43.1640	1.0	50.0000		86.3	80 - 120			
Lead	43.9362	1.0	50.0000		87.9	80 - 120			

Duplicate (B6K1081-DUP1)

Source: 1604231-67

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	3.41506	1.0		1.91628	NR		56.2	20	R
Lead	344.293	1.0		185.498	NR		59.9	20	R

Matrix Spike (B6K1081-MS1)

Source: 1604231-67

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	93.5942	1.0	125.000	1.91628	73.3	59 - 103			
Lead	219.682	1.0	125.000	185.498	27.3	34 - 129			M1

Matrix Spike Dup (B6K1081-MSD1)

Source: 1604231-67

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	87.0534	1.0	125.000	1.91628	68.1	59 - 103	7.24	20	
Lead	268.877	1.0	125.000	185.498	66.7	34 - 129	20.1	20	R



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B6K1082 - EPA 3050B_S

Blank (B6K1082-BLK1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	ND	1.0			NR				
Lead	0.155659	1.0			NR				J

LCS (B6K1082-BS1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	42.4705	1.0	50.0000		84.9	80 - 120			
Lead	42.9960	1.0	50.0000		86.0	80 - 120			

Duplicate (B6K1082-DUP1)

Source: 1604231-95

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	2.26486	1.0		2.12888	NR		6.19	20	
Lead	50.8255	1.0		43.6691	NR		15.1	20	

Matrix Spike (B6K1082-MS1)

Source: 1604231-95

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	93.9734	1.0	125.000	2.12888	73.5	59 - 103			
Lead	186.447	1.0	125.000	43.6691	114	34 - 129			

Matrix Spike Dup (B6K1082-MSD1)

Source: 1604231-95

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	92.2272	1.0	125.000	2.12888	72.1	59 - 103	1.88	20	
Lead	130.128	1.0	125.000	43.6691	69.2	34 - 129	35.6	20	R



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1088 - EPA 3010A_W

Blank (B6K1088-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6K1088-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	0.876868	0.010	1.00000		87.7	80 - 120			
Lead	0.970161	0.0050	1.00000		97.0	80 - 120			

Duplicate (B6K1088-DUP1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6K1088-MS1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.19257	0.010	2.50000	ND	87.7	74 - 123			
Lead	2.42081	0.0050	2.50000	ND	96.8	78 - 109			

Matrix Spike Dup (B6K1088-MSD1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.27086	0.010	2.50000	ND	90.8	74 - 123	3.51	20	
Lead	2.51290	0.0050	2.50000	ND	101	78 - 109	3.73	20	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 12/15/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B6L0564 - EPA 3050B_S

Blank (B6L0564-BLK1)

Prepared: 12/14/2016 Analyzed: 12/15/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6L0564-BS1)

Prepared: 12/14/2016 Analyzed: 12/15/2016

Arsenic	46.1856	1.0	50.0000		92.4	80 - 120			
Lead	47.7074	1.0	50.0000		95.4	80 - 120			

Duplicate (B6L0564-DUP1)

Source: 1604231-AE

Prepared: 12/14/2016 Analyzed: 12/15/2016

Arsenic	13.9644	1.0		14.6043	NR		4.48	20	
Lead	187.565	1.0		186.598	NR		0.517	20	

Matrix Spike (B6L0564-MS1)

Source: 1604231-AE

Prepared: 12/14/2016 Analyzed: 12/15/2016

Arsenic	111.153	1.0	125.000	14.6043	77.2	59 - 103			
Lead	269.801	1.0	125.000	186.598	66.6	34 - 129			

Matrix Spike Dup (B6L0564-MSD1)

Source: 1604231-AE

Prepared: 12/14/2016 Analyzed: 12/15/2016

Arsenic	79.8170	1.0	125.000	14.6043	52.2	59 - 103	32.8	20	M1, R
Lead	166.262	1.0	125.000	186.598	-16.3	34 - 129	47.5	20	M1, R



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 12/15/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D6	Sample required dilution due to high concentration of target analyte.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 11

Instruction: Complete all shaded areas.

Method of Transport		For Laboratory Use Only						ATLCOCC Ver: 20130715	
		Simple Conditions Upon Receipt							
		Condition	Y	N	Condition	Y	N		
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED	<input checked="" type="checkbox"/>		5. # OF SAMPLES	W/ATC	COC	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (N/A)	<input type="checkbox"/>		6. PRESERVED			<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT	<input type="checkbox"/>		7. COOLER TEMP, deg C			57.5	
<input type="checkbox"/> Other:		4. SEALED	<input type="checkbox"/>						

Company: TRC		Address: 9685 Research Dr.		Tel:	
City: Irving		State: CA		Fax:	
Zip: 92618		SEND INVOICE TO:		Name as SEND REPORT TO	
SEND REPORT TO:		Attn:		Email:	
Company: John Nordenstam		Company:			
Address: TRC		Address:			
City: Irving CA		City:		State: Zip:	

[illegible]

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>		<p align="center">Signature</p>	
<p align="center">Submitter Print Name</p>		<p align="center">Date: 11/22/16 Time: 1:30 PM</p>	
		<p align="center">Date: _____ Time: _____</p>	
		<p align="center">Date: _____ Time: _____</p>	

<p>samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. 9. Storage and Report Fees: - Liquid & solid sample storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested. - Air samples: Complementary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested. - Hard copy and regenerated reports/EODs: \$17.50 per hard copy report requested; \$50.00 per regenerated/eforma? ed report; \$25 per reprocesed EDD - Hard copy and regenerated reports/EODs: \$17.50 per hard copy report requested; \$50.00 per regenerated/eforma? ed report; \$25 per reprocesed EDD 10. Rush TCP/STP/CML samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p align="center">Received by: (Signature and Printed Name) Time: 1:30 PM</p>	
		<p align="center">Received by: (Signature and Printed Name) _____ Time: _____</p>	
		<p align="center">Received by: (Signature and Printed Name) _____ Time: _____</p>	

ADVANCED TECHNOLOGY
LABORATORIES

page 2 of 11

Instruction: Complete all shaded areas.

CUSTOMERPROJECT SAMPLES

TERMS	COST/DY
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CHAIN OF CUSTODY RECORD

Page 4 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOCC Ver. 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac <input type="checkbox"/> GSO <input type="checkbox"/> Other:	Condition Y N Y N	5. # OF SAMPLES MATCH COC <input type="checkbox"/> 6. PRESERVED <input type="checkbox"/> 7. COOLER TEMP. deg. C: <input type="checkbox"/> 8. SEALED <input type="checkbox"/>

Company: TRC		Address: 9085 Research Dr.		Tel: _____	
Attn: John Hordenstam		City: IRVINE		State: CA Zip: 92618	
Company: TRC		Address: _____		Email: _____	
Address: 9085 Research Dr.		City: _____		State: _____ Zip: _____	
City: IRVINE		State: CA		Zip: 92618	

Project Name: Roosevelt HS		Quote No: 516131	Special Instructions/Comments:	
Project No: 265642		PO #: 100816		
Sampler: K. Keller				
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1604231-31	C-13b-0.5		0835
2	1-32	C-13b-2.5		0838
3	-33	C-13c-0.5		0845
4	-34	C-13c-2.5		0840
5	-35	C-17d-0.5		0848
6	-36	C-17d-2.5		0850
7	-37	B-13d-0.5		0855
8	-38	B-13d-2.5		0857
9	-39	C-13d-0.5		0905
10	-40	C-13d-2.5		0907

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM. 2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM. 3. The following 15 business days are considered received the following Business day if received by 9:00 AM: TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5 : 10% Surcharge 5TH BUSINESS DAY (COB 5:00 PM) 4. Weekends: NO SURCHARGE. 5th Business Day. Projects requiring shorter TATs will incur a surcharge. 5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge. 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. 9. Storage and Report Fees: - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35.00 per EDO. 10. Rush TAT/STL samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	
As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Submitter Print Name _____ Signature _____	Date: 11/22/16 Time: 7:30
Received by: (Signature and Printed Name) Kelly Keller	Date: 11/22/16 Time: 18:30
Relinquished by: (Signature and Printed Name) Kelly Keller	Date: _____ Time: _____
Relinquished by: (Signature and Printed Name)	Date: _____ Time: _____

CUSTOMER

PROJECT SAMPLES

TERMS CUSTODY

CHAIN OF CUSTODY RECORD

Page 7 of 16

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (VOA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C:
		<input type="checkbox"/> 4. SEALED	

Company: TPE		Address: 9685 Research Dr.		Tel: _____	
Attn: John Nardenstam		City: IRVINE		State: CA Zip: 92618	
Company: TPE		Address: _____		Email: _____	
Address: 9685 Research Dr.		City: _____		State: _____ Zip: _____	

Project Name: Roosevelt H.S.		Quote No: ET-131		Special Instructions/Comments:	
Project No: 265642		PO #: 100816			
Sampler: K. Keller					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	160231-61	P15d-2.5		11/22/16	1212
2	-62	P15d-3.5			1215
3	-63	P16a-0.5			1217
4	-64	P16a-2.5			1219
5	-65	Q15a-0.5			1218
6	-66	Q15a-2.5			1225
7	-67	Q15a-3.5			1227
8	-68	P16c-0.5			1223
9	-69	P16c-2.5			1225
10	-70	P16b-0.5			1228

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>Signature: _____</p>		<p>Submitter Print Name: _____</p>	
<p>Relinquished by: (Signature and Printed Name) Kelly Keller</p> <p>Relinquished by: (Signature and Printed Name) Kelly Keller</p>		<p>Relinquished by: (Signature and Printed Name) _____</p>	
<p>Relinquished by: (Signature and Printed Name) _____</p>		<p>Relinquished by: (Signature and Printed Name) _____</p>	

CHAIN OF CUSTODY RECORD

Page 8 of 11

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (10A)	<input type="checkbox"/> 6. PRESERVED
		3. CONTAINER INSTANT	<input type="checkbox"/> 7. COOLER TEMP. deg. C:
		4. SEALED	<input type="checkbox"/>

Company: TRC		Address: 9685 Research Dr.		Tel: _____	
Attn: John Nardenstam		City: Irving		State: CA	
Company: TRC		Zip: 92618		Fax: _____	
Address: 9685 Research Dr.		City: Irving		State: CA	
City: Irving		Zip: 92618		Fax: _____	

Project Name: Roosevelt H.S.		Quote No: E16H131		Special Instructions/Comments:	
Project No: 265642		PO #: 100816			
Sampler: K. Keller					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1604231-71	P16b-2.5		11/22/16	12:30
2	-72	Q15b-0.5		1243	
3	-73	Q15b-2.5		1244	
4	-74	Q15d-0.5		1250	
5	-75	Q15d-2.5		1255	
6		R15-0.5		1257	
7		Q15-3C-0.5		1400	
8					
9					
10					

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>		<p>Signature _____</p>	
<p>Submitter Print Name _____</p>		<p>Date: 11/22/16 Time: 1:30</p>	
<p>Received by: (Signature and Printed Name) _____</p>		<p>Date: _____ Time: _____</p>	
<p>Relinquished by: (Signature and Printed Name) _____</p>		<p>Date: _____ Time: _____</p>	
<p>Relinquished by: (Signature and Printed Name) _____</p>		<p>Date: _____ Time: _____</p>	

CHAIN OF CUSTODY RECORD

Page 10 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (V/V)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg. C.
		4. SEALED	<input type="checkbox"/>

Company: TRC		Address: 9685 Research Dr.		Tel:	
Attn: John Nordenstam		City: Irvine CA		State: CA Zip: 92618	
Company: TRC		Email:		Fax:	
Address: 9685 Research Dr.		SEND REPORT TO:		SEND INVOICE TO:	
City: Irvine		State: CA Zip: 92618		Email:	
		Attn:		Company:	
		Address:		State:	
		City:		Zip:	

Project Name: Roosevelt HS		Quote No: 616131		Special Instructions/Comments:	
Project No: 205642		PO #: 100816			
Sampler: K. Keller					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	164231-95	R15b-2.5		11/22/16	1310
2	-96	R15c-0.25			1320
3	-97	R15c-0.5			1323
4	-98	R15c-2.5			1325
5	-99	CRA-3c-0.5			1400
6	-90	CRA-3c-2.5			1405
7	-91	CRA-2b-0.5			1410
8	-92	CRA-2b-2.5			1412
9	-93	CRA-2b-3.5			1415
10	-94	CRA-2a-0.5			1417

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Submitter Print Name	
Signature	
Date: 11/22/16	
Time: 1:30	
Received by: (Signature and Printed Name)	
Date: 11/22/16	
Time: 1:31	
Relinquished by: (Signature and Printed Name)	
Date:	
Time:	
Relinquished by: (Signature and Printed Name)	
Date:	
Time:	

CHAIN OF CUSTODY RECORD

Page 11 of 11

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VQA)	<input type="checkbox"/> Y <input type="checkbox"/> N
		3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: TRC		Address: 9685 Research Dr.		City: IRVINE		State: CA		Zip: 92618	
Attn: John Nardenstam		Attn:		City:		State:		Zip:	
Company: TRC		Company:		City:		State:		Zip:	
Address: 9685 Research Dr.		Address:		City:		State:		Zip:	
Tel:		Tel:		City:		State:		Zip:	
Fax:		Fax:		City:		State:		Zip:	

Project Name: Roosevelt H.S.		Quote No: E167131		Special Instructions/Comments:	
Project No: 265642		PO #: 100816			
Sampler: K. Keller					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	160421-95	CRA-2d-2.5		11/22/16	1420
2	160421-96	CRA-2d-3.5		11/22/16	1422
3	160421-97	CRA-3d-0.5		11/22/16	1423
4	160421-98	CRA-3d-2.5		11/22/16	1425
5	160421-99	CRA-2C-0.5		11/22/16	1429
6	160421-AA	CRA-2C-2.5		11/22/16	1432
7	160421-AB	CRA-2C-3.5		11/22/16	1435
8	160421-AC	EB-19		11/22/16	1440
9	160421-AD	EB-20		11/22/16	1445
10					

<p>1. Sample received hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.</p> <p>3. The following turnaround time conditions apply: pay if received by 9:00 AM</p> <p>TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 5 : NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)</p> <p>4. Weekend TAT is 10 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab ... ask for quote.</p> <p>5. Subcontract TAT is 10-15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab ... ask for quote.</p> <p>6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>7. Electronic records maintained for five (5) years from report date.</p> <p>8. Hard copy reports will be disposed of after 45 calendar days from report date.</p> <p>9. Storage and Report Fees:</p> <ul style="list-style-type: none"> - Liquid & solid samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Fed copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$50.00 per regenerated COB. 10. Re-analysis: Add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample. 		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>	
<p>Relinquished by: (Signature and Printed Name) Kelly Keller</p> <p>Relinquished by: (Signature and Printed Name) Kelly Keller</p> <p>Relinquished by: (Signature and Printed Name)</p>		<p>Signature</p> <p>Signature</p> <p>Signature</p>	
<p>Date: 11/22/16</p> <p>Date: 11/22/16</p> <p>Date:</p>		<p>Date: 11/22/16</p> <p>Date: 11/22/16</p> <p>Date:</p>	

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Friday, December 02, 2016 12:57 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected November 22, 2016
Attachments: DOC120216.pdf

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on November 22, 2016, at LAUSD Roosevelt High School (see attachment):

- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and/or Lead (EPA Method 6010B) as specified below.
 - B-14a-0.5 - Arsenic
 - B-16a-0.5 – Lead and Arsenic
 - B-16c-0.5 – Lead and Arsenic
 - AA1917-4c-2.5 - Lead
 - AA1917-4d-2.5 - Lead
 - P15d-2.5 - Lead
 - Q15a-3.5 - Lead
 - R15-0.25 - Lead
 - CRA-2d-0.5 Lead and Arsenic
 - CRA-2d-2.5 - Lead

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 F: 949.727.3022 C: 949.283.4754
[LinkedIn](#) [Twitter](#) [Blog](#) www.trcsolutions.com

CHAIN OF CUSTODY RECORD

Page 1 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCCDC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
Condition	Y	N	Condition	Y	N
1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH DOC	<input type="checkbox"/>	<input type="checkbox"/>
2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED	<input type="checkbox"/>	<input type="checkbox"/>
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. DEG C	<input type="checkbox"/>	<input type="checkbox"/>
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>			

Client: ☐ ATL ☐ FedEx ☐ GSO ☐ Other: _____

Company: **TRC** Address: **9685 Research Dr.** Tel: _____
City: **IRVINE** State: **CA** Zip: **92618**
Attn: **John Mendenhall** Email: _____
Company: **TRC** Address: _____
City: **IRVINE** State: **CA** Zip: **92618**

Project Name: **ROOSEVELT HS** Quote No: **E6I131**
Project No.: **205642** PO #: **100816**
Sampler: **F. Keller**

ITEM	Lab No.	Sample Description		Date	Time	Encircle or Write Requested Analysis										Encircle Sample Matrix				Container	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		Sample ID / Location				8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	6010 / 7000 (Title 22 Metals)	TO-15	LEAD 6010 B	ARSENIC 6010 B	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE			AQUEOUS / LAYERED - OIL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
1		B-13A-0.5		11/22/14	0742										X	X	X					5-lb. 1-Tube, 2-VOA, 3-Uter, 4-Plat, 5-lab, 6-Tedlar, 7-Canister, 8-Metal	5-lb. (AO) 2, 6-NH ₄ OH, 7-MN2203																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

1. Samples received hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply: DAY if received by 9:00 AM
TAT = 0: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 1: 50% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 25% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, Holiday, after-hours work - ask for quote.
5. Shipments to this subcontract lab - ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$50/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ad report; \$25.00 per EDO/STC add 2 days to analyze TAT for extraction on procedure.
10. Unanalyzed samples will incur a disposal fee of \$7 per sample.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Relinquished by: (Signature and Printed Name) **Kelly S. Keller** Date: **11/22/14** Time: **1830**
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature _____
Submitter Print Name _____
Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 2 of 11

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt			
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH CDC
<input type="checkbox"/> GSO		2. HEADSPACE (NDA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP (deg. C)
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company: TRC		Address: 4105 Research Dr.		Tel: _____	
Attn: John Naderstam		City: IRVINE CA		State: CA Zip: 92618	
Company: 4105 Research Dr.		Address: TRC		Fax: _____	
Attn: _____		City: _____		State: _____ Zip: _____	

Project Name: Roosevelt HS		Quote No: 0161131		Special Instructions/Comments:	
Project No: 265642		PO #: 100816			
Sampler: Keller					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1		B-140-0.5		11/22/16	0808
2		B-140-2.5			0810
3		B-150-0.5			0804
4		B-150-2.5			0806
5		B-150-0.5			0808
6		B-150-2.5			0810
7		B-150-0.5			0812
8		B-150-2.5			0814
9	✓	B-160-0.5	DUP		0820
10	✓	B-160-2.5			0833

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>		<p>Signature _____</p>	
<p>Submitter Print Name _____</p>		<p>Date: _____ Time: _____</p>	
<p>Relinquished by: (Signature and Printed Name) Kelly Keller</p>		<p>Date: 11/22/16 Time: 1330</p>	
<p>Relinquished by: (Signature and Printed Name)</p>		<p>Date: _____ Time: _____</p>	
<p>Relinquished by: (Signature and Printed Name)</p>		<p>Date: _____ Time: _____</p>	

1. Samples received by 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples submitted after 3:00 PM will be received the following business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 0: 100% Surcharge SAME BUSINESS DAY (if received by 9:00 AM)
TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 20% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for 1 yr (5 yrs from report date).
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and report fees: Complimentary storage for forty (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reprocessed EDO.
10. Rush TAT/STC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

CHAIN OF CUSTODY RECORD

Page 4 of 11

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt			
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> DSO	<input type="checkbox"/>	2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Company: TRC		Address: 9615 VINE DR.		Tel: _____	
Attn: John Nardenslaar		City: IRVINE		State: CA	
Company: TRC		Zip: 92618		Fax: _____	
Address: 9685 Research Dr.		SEND INVOICE TO: _____		Email: _____	
City: IRVINE		State: CA		Zip: _____	

Project Name: Roosevelt HS		Quote No: 616131		Special Instructions/Comments:	
Project No.: 205642		PO #: 100816			
Sampler: K. Keller					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1		C-13b-0.5		11/22/10	0835
2		C-13b-2.5			0838
3		C-13c-0.5			0845
4		C-13c-2.5			0850
5		C-17d-0.5			0848
6		C-17d-2.5			0850
7		B-13d-0.5			0855
8		B-13d+2.5			0857
9		C-13d-0.5			0905
10		C-13d-2.5			0907

Encircle or Write Requested Analysis		Endcircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)		SOIL / SEDIMENT / SLUDGE		Type: 1-Tube, 2-Vial, 3-Canister		Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-Ac	5-Zn (1A), 6-Ni (1B), 7-Mn (1C), 8-Cd (1D), 9-Pb (1E), 10-Cr (1F), 11-Co (1G), 12-Cu (1H), 13-Al (1I), 14-Si (1J), 15-Fe (1K), 16-Ni (1L), 17-Mn (1M), 18-Zn (1N), 19-Pb (1O), 20-Cd (1P), 21-Cr (1Q), 22-Ni (1R), 23-Mn (1S), 24-Zn (1T), 25-Pb (1U), 26-Cd (1V), 27-Cr (1W), 28-Ni (1X), 29-Mn (1Y), 30-Zn (1Z)
8015 (GRO)		WATER - DRINKING / GROUND		Seal: 1-Tube, 2-Vial, 3-Canister		Material: 1-Glass, 2-Plastic, 3-Metal	Legal
8015 (DRO)		WATER - STORM / WASTE					Caltrans
8081 (Organochlorine Pesticides)		WATER - DRINKING / GROUND					Level IV
8082 (PCBs)		WATER - STORM / WASTE					
6010 / 7000 (Total 22 Metals)		WATER - DRINKING / GROUND					
TO-15		WATER - STORM / WASTE					
LEAD 6010 B		WATER - DRINKING / GROUND					
NOX 6010 B		WATER - STORM / WASTE					

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name		Signature	
Date: _____		Time: _____	
Received by: (Signature and Printed Name)		Date: _____	
Relinquished by: (Signature and Printed Name)		Date: _____	
Relinquished by: (Signature and Printed Name)		Date: _____	

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCC Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt	
Condition	Y	N	Y
1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. HEADSPACE (NDA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Client
☐ FedEx
☐ GSX
☐ Other:

☐ ATL
☐ OnTrac

☐ 5. # OF SAMPLES MATCH COC
☐ 6. PRESERVED
☐ 7. COOLER TEMP. deg. C:

Company: **TRC** Address: **44085 Research Dr.** City: **IRVINE** State: **CA** Zip: **92618**

Attn: **John Nardonskam** Email: _____

Company: _____ Address: _____ City: _____ State: _____ Zip: _____

Project Name: **Rosevelt H.S.** Quote No: **E161131**

Project No: **265642** PO #: **100816**

Sampler: **K. Keller**

Lab No. _____

Sample ID / Location _____

Sample Description _____

Date # _____ Time _____

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		REMARKS
8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8082 (Organochlorine Pesticides)	6010 / 7000 (Tl, Pb, Cu, Zn, Cd, Ni, Cr, Mn, Hg, As, Se, Sb, Bi, Mo, W, V, Co, Fe, Ni, Cu, Zn, Cd, Ni, Cr, Mn, Hg, As, Se, Sb, Bi, Mo, W, V, Co, Fe)	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5-Zn (Ac2); 6-NiOH; 7-Mn2SO4; 4-Ag
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Material: 1-Glass; 2-Plastic; 3-Metal
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type: 1-Tube; 2-Vial; 3-Liter; 4-Pint
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5-Liter; 6-Tiering; 7-Canister
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	QA/QC
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Routine
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Caltrans
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Legal
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> RWQCB
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Level IV

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature _____ Date: _____

Submitter Print Name _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 8 of 11

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt			
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/>	2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/> Other	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg C: <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company: TRC		Address: 4655 Reservoir Dr.		Tel: 714-712-1818	
Attn: John Nix		City: Irving		Fax: 714-712-1818	
Company: TRC		State: CA		Zip: 92618	
Address: 4655 Reservoir Dr.		City: Irving		State: CA	
City: Irving		State: CA		Zip: 92618	

Project Name: Rosevelt H.S.		Quote No: 5104131		Special Instructions/Comments:	
Project No.: 265642		PO #: 100816			
Sampler: K. Keller					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1		F16b-2.5		11/22/10	12:30
2		Q15b-0.5		12/4/10	12:45
3		Q15b-2.5		12/4/10	12:49
4		Q15A-0.5		12/5/10	12:50
5		Q15A-2.5		12/5/10	12:55
6		R15-0.5		12/5/10	12:57
7		R15-2.5		12/5/10	12:57
8					
9					
10					

Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
8260 / 624 (Volatiles)		SOIL / SEDIMENT / SLUDGE		1	1	5-Zn (162); 6-NiOH; 7-MnOH; 8-H2SO4; 9-Ag	<input type="checkbox"/> Routine
8015 (GRO)						Preservative: 1-HCl; 2-HNO3; 3-H2SO4; 4-Ag	<input type="checkbox"/> Caltrans
8015 (DRO)						Material: 1-Glass; 2-Plastic; 3-Metal	<input type="checkbox"/> Legal
8270 (Semi-volatiles)						Type: 1-Tube; 2-Vial; 3-Filter; 4-Pint	<input type="checkbox"/> RWQCB
8081 (Organochlorine Pesticides)						Size: 1-1/2; 2-1/2; 3-1/2; 4-1/2	<input type="checkbox"/> Level IV
8082 (PCBs)							
6010 / 7000 (Title 22 Metals)							
TO-15							
LEAD							
LEAD							
LEAD							

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature	
Date: 11/22/10		Time: 12:30	
Date: 11/22/10		Time: 12:30	
Date: 11/22/10		Time: 12:30	

CHAIN OF CUSTODY RECORD

Page 9 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	Condition Y N 1. CHILLED <input type="checkbox"/> <input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/> <input type="checkbox"/> 2. HEADSPACE (NDA) <input type="checkbox"/> <input type="checkbox"/> 6. PRESERVED <input type="checkbox"/> <input type="checkbox"/> 3. CONTAINER INTACT <input type="checkbox"/> <input type="checkbox"/> 7. COOLER TEMP. deg C: <input type="checkbox"/> <input type="checkbox"/> 4. SEALED <input type="checkbox"/> <input type="checkbox"/>	Condition Y N 1. CHILLED <input type="checkbox"/> <input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/> <input type="checkbox"/> 2. HEADSPACE (NDA) <input type="checkbox"/> <input type="checkbox"/> 6. PRESERVED <input type="checkbox"/> <input type="checkbox"/> 3. CONTAINER INTACT <input type="checkbox"/> <input type="checkbox"/> 7. COOLER TEMP. deg C: <input type="checkbox"/> <input type="checkbox"/> 4. SEALED <input type="checkbox"/> <input type="checkbox"/>

Company: <u>IREC</u>		Address: <u>9085 Research Dr</u>		Tel: <u>9085 Research Dr</u>	
Attn: <u>John Hurdenshaw</u>		City: <u>Irving</u>		State: <u>TX</u>	
Company: <u>IREC</u>		Zip: <u>92618</u>		Fax: <u>92618</u>	
Address: <u>9085 Research Dr</u>		SEND INVOICE TO: <u>Same as SEND REPORT TO</u>		Email: <u></u>	
City: <u>Irving</u>		State: <u>TX</u>		Zip: <u>92618</u>	

Project Name: <u>PROJECT HS</u>		Quote No: <u>516131</u>		Special Instructions/Comments:	
Project No: <u>205642</u>		PO #: <u>100816</u>			
Sampler: <u>R. Keller</u>					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1		<u>R15A-2.5</u>	<u>DUP</u>	<u>11/23/16</u>	<u>12:55</u>
2		<u>R15A-0.25</u>		<u>12:57</u>	
3		<u>R15A-0.25</u>		<u>13:00</u>	
4		<u>R15A-0.5</u>		<u>13:02</u>	
5		<u>R15A-2.5</u>		<u>13:05</u>	
6		<u>R15A-0.25</u>		<u>13:07</u>	
7		<u>R15A-0.5</u>		<u>13:09</u>	
8		<u>R15A-2.5</u>		<u>13:12</u>	
9		<u>R15B-0.25</u>		<u>13:15</u>	
10		<u>R15B-0.5</u>		<u>13:18</u>	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____

Submitter Print Name: _____

Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 10 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only
 ATLCC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (NDA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/>		3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg. C: <input type="checkbox"/>
<input type="checkbox"/>		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company: TRC
 Address: 4085 Research Dr.
 City: Irving CA State: CA Zip: 92618
 Attn: John Andlenstein Email: _____
 Company: TRC
 Address: 4085 Research Dr.
 City: Irving State: CA Zip: 92618

Project Name: <u>ROOSEVELT H.S.</u>		Quote No: <u>6167131</u>	Special Instructions/Comments:	
Project No: <u>265642</u>		PO #: <u>100810</u>		
Sampler: <u>K Keller</u>				
ITEM	Lab No.	Sample ID / Location	Date	Time
1		R15b-2.5	11/22/10	1320
2		R15c-0.25		1320
3		R15c-0.5		1323
4		R15c-2.5		1375
5		CRA-2c-0.5		1400
6		CRA-2c-2.5		1405
7		CRA-2b-0.5		1410
8		CRA-2b-2.5		1412
9		CRA-2b-3.5		1415
10		CRA-2A-0.5 DUP		1417

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____ Signature: _____

Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 11 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:	<input type="checkbox"/> ATL <input type="checkbox"/> OnTrac	Condition <input type="checkbox"/> Y <input type="checkbox"/> N	Condition <input type="checkbox"/> Y <input type="checkbox"/> N
1. CHILLED 2. HEADSPACE (NDA) 3. CONTAINER INTACT 4. SEALED		5. # OF SAMPLES MATCH COC 6. PRESERVED 7. COOLER TEMP. deg. C.	

Company: TPC		Address: 9085 Riva Rd		Tel: _____	
Attn: John Nardensbaum		City: Irving		Fax: _____	
Company: TPC		State: CA		Zip: 92618	
Address: 9085 Research Dr.		City: _____		State: _____	
City: Irving		State: CA		Zip: 92618	

Project Name: Powerplant H.S.		Quote No: 6167131	
Project No: 266642		PO #: 10816	
Sampler: L. Keller			

Special Instructions/Comments:			
1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM. 2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM. 3. The following turnaround time conditions apply: TAT = 0 : 300% Surcharge SAME BUSINESS DAY (if received by 9:00 AM) TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 2 : 30% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5 : NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) 4. Weekend, holiday, after-hours work - ask for quote. 5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontractor - ask for quote. 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. 9. All reports are prepared by the laboratory. Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. 10. Rust TAT/STC samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.			

PROJECT SAMPLES		Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC									
ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015 (GRO)	8015 (PRO)	8270 (Semi-volatiles)	8082 (Organochlorine Pesticides)	6010 / 7000 (Title 22 Metals)	TO-15	SOIL / SEDIMENT / SLUDGE	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	REMARKS	
1	✓	CRA-2A-2.5 DUP	11/22/16	1420													Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4 = 4C, 5=2n (A02), 6=NaOH, 7=NA2S2O3
2		CRA-2A-3.5		1422													
3		CRA-3A-0.5		1423													
4		CRA-3A-2.5		1425													
5		CRA-2A-0.5		1429													
6		CRA-2A-2.5		1432													
7		CRA-3C-3.5		1435													
8		CB-191		1440													
9		EA-20		1445													
10																	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature	
Submitter Print Name		Date:	
Time:		Date:	
Time:		Date:	
Time:		Date:	



January 16, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604231
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on November 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-13a-0.5	1604231-01	Soil	11/22/16 7:42	11/22/16 18:30
B-13c-0.5	1604231-03	Soil	11/22/16 7:48	11/22/16 18:30
C-17b-0.5	1604231-27	Soil	11/22/16 8:40	11/22/16 18:30
C-13c-0.5	1604231-33	Soil	11/22/16 8:45	11/22/16 18:30
P15a-2.5	1604231-55	Soil	11/22/16 11:57	11/22/16 18:30
P15b-0.5	1604231-57	Soil	11/22/16 12:02	11/22/16 18:30
P15d-0.5	1604231-60	Soil	11/22/16 12:10	11/22/16 18:30
P15d-2.5	1604231-61	Soil	11/22/16 12:12	11/22/16 18:30
Q15a-2.5	1604231-66	Soil	11/22/16 12:25	11/22/16 18:30
Q15a-3.5	1604231-67	Soil	11/22/16 12:27	11/22/16 18:30
P16c-0.5	1604231-68	Soil	11/22/16 12:23	11/22/16 18:30
R15-0.25	1604231-76	Soil	11/22/16 12:57	11/22/16 18:30
R15d-0.5	1604231-81	Soil	11/22/16 13:09	11/22/16 18:30
CRA-2b-0.5	1604231-91	Soil	11/22/16 14:10	11/22/16 18:30
CRA-2b-2.5	1604231-92	Soil	11/22/16 14:12	11/22/16 18:30
CRA-2c-3.5	1604231-AB	Soil	11/22/16 14:35	11/22/16 18:30
P15d-2.5 DUP	1604231-AJ	Soil	11/22/16 12:12	11/22/16 18:30
Q15a-3.5 DUP	1604231-AK	Soil	11/22/16 12:27	11/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID B-13a-0.5

Lab ID: 1604231-01

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.3	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:02	



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TRC
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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID B-13c-0.5

Lab ID: 1604231-03

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.6	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:03	



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TRC
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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID C-17b-0.5

Lab ID: 1604231-27

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.6	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:04	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID C-13c-0.5

Lab ID: 1604231-33

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.0	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:08	



Certificate of Analysis

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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID P15a-2.5

Lab ID: 1604231-55

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.2	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:09	



Certificate of Analysis

TRC
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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID P15b-0.5

Lab ID: 1604231-57

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.5	1.0	0.057	20	B7A0222	01/09/2017	01/09/17 19:10	



Certificate of Analysis

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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID P15d-0.5

Lab ID: 1604231-60

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.8	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:24	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID P15d-2.5

Lab ID: 1604231-61

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.3	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:25	



Certificate of Analysis

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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID Q15a-2.5

Lab ID: 1604231-66

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	190	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:26	



Certificate of Analysis

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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID Q15a-3.5

Lab ID: 1604231-67

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	120	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:27	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID P16c-0.5

Lab ID: 1604231-68

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.6	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:28	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID R15-0.25

Lab ID: 1604231-76

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.78	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:29	J



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID R15d-0.5

Lab ID: 1604231-81

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.3	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:31	



Certificate of Analysis

TRC
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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CRA-2b-0.5

Lab ID: 1604231-91

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.5	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:32	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CRA-2b-2.5

Lab ID: 1604231-92

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	140	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:33	



Certificate of Analysis

TRC
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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CRA-2c-3.5

Lab ID: 1604231-AB

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.6	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:36	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID P15d-2.5 DUP

Lab ID: 1604231-AJ

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.057	20	B7A0389	01/13/2017	01/13/17 12:40	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID Q15a-3.5 DUP

Lab ID: 1604231-AK

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.5	1.0	0.057	20	B7A0389	01/13/2017	01/13/17 12:43	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0222 - STLC_S Extraction									
Blank (B7A0222-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0222-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0222-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.02733		2.00000		101	80 - 120			
Duplicate (B7A0222-DUP1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	1.21638	1.0		1.27187	NR		4.46	20	
Duplicate (B7A0222-DUP2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	8.34335	1.0		8.45527	NR		1.33	20	
Matrix Spike (B7A0222-MS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	3.57898		2.50000	1.27187	92.3	44 - 130			
Matrix Spike (B7A0222-MS2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	10.1169		2.50000	8.45527	66.5	44 - 130			
Matrix Spike Dup (B7A0222-MSD1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Lead	3.70326		2.50000	1.27187	97.3	44 - 130	3.41	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0224 - STLC_S Extraction									
Blank (B7A0224-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
Blank (B7A0224-BLK2)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	ND	1.0			NR				
LCS (B7A0224-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	2.03687		2.00000		102	80 - 120			
Duplicate (B7A0224-DUP1)				Source: 1604231-AB Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	5.93532	1.0		5.58095	NR		6.15	20	
Duplicate (B7A0224-DUP2)				Source: 1604246-33 Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	5.61466	1.0		5.40362	NR		3.83	20	
Matrix Spike (B7A0224-MS1)				Source: 1604231-AB Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	7.69641		2.00000	5.58095	106	44 - 130			
Matrix Spike (B7A0224-MS2)				Source: 1604246-33 Prepared: 1/9/2017 Analyzed: 1/9/2017					
Lead	7.49784		2.00000	5.40362	105	44 - 130			
Matrix Spike Dup (B7A0224-MSD1)				Source: 1604231-AB Prepared: 1/9/2017 Analyzed: 1/10/2017					
Lead	8.20907		2.00000	5.58095	131	44 - 130	6.45	20	M1



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Report To : John Nordenstam
Reported : 01/16/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0389 - STLC_S Extraction									
Blank (B7A0389-BLK1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
Blank (B7A0389-BLK2)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	ND	1.0			NR				
LCS (B7A0389-BS1)				Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	1.99002		2.00000		99.5	80 - 120			
Duplicate (B7A0389-DUP1)				Source: 1604892-04 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	0.156843	1.0		0.155279	NR		1.00	20	J
Duplicate (B7A0389-DUP2)				Source: 1700063-35 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	1.45590	1.0		1.47774	NR		1.49	20	
Matrix Spike (B7A0389-MS1)				Source: 1604892-04 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.72943		2.50000	0.155279	103	44 - 130			
Matrix Spike (B7A0389-MS2)				Source: 1700063-35 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	3.97823		2.50000	1.47774	100	44 - 130			
Matrix Spike Dup (B7A0389-MSD1)				Source: 1604892-04 Prepared: 1/13/2017 Analyzed: 1/13/2017					
Lead	2.64958		2.50000	0.155279	99.8	44 - 130	2.97	20	



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Notes and Definitions

M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L		
Screening Level: Units:										
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead	
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	90	X	---	Perform laboratory analysis for STLC for lead	
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X	---	Perform laboratory analysis for STLC for lead	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X	---	Perform laboratory analysis for STLC for lead	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X	---	Perform laboratory analysis for STLC for lead	
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X	---	Perform laboratory analysis for STLC for lead	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead	
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X	---	Perform laboratory analysis for STLC for lead	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead	
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	Perform laboratory analysis for STLC for lead	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	Perform laboratory analysis for STLC for lead	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	Perform laboratory analysis for STLC for lead	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	Perform laboratory analysis for STLC for lead	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	Perform laboratory analysis for STLC for lead	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	Perform laboratory analysis for STLC for lead	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	Perform laboratory analysis for STLC for lead	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	Perform laboratory analysis for STLC for lead	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead	
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	Perform laboratory analysis for STLC for lead	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead	
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead	
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead	
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead	
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead	
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead	



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC			
				mg/kg	mg/L	mg/kg	mg/L			
Units:				TTL	STLC	TTL	STLC	TCLP		
Screening Level:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
AUD-6-0-25	11/21/2016	1604222	0.25	12	5.0	80	5.0			
AUD-6-0-5	10/16/2016	1603634	0.5	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	160			Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-2-5	10/29/2016	1603827	2.5	18	---	19				
AA2684-3-2-5	10/29/2016	1603827	2.5	20	---	16				
AA2543-1-2-5	10/29/2016	1603827	2.5	33	---	25				
AA2543-2-0-5	10/29/2016	1603827	0.5	34	---	26				
AA2543-2-2-5	10/29/2016	1603827	2.5	23	---	17				
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	25	---	17				
AA2543-5-0-5	10/29/2016	1603827	0.5	24	---	17				
AA2543-5-2-5	10/29/2016	1603827	2.5	25	---	16				
AA2543-6-0-5	10/29/2016	1603827	0.5	34	---	26				
AA2543-6-2-5	10/29/2016	1603827	2.5	39	---	34				
AA2038-1-0-5	10/30/2016	1603843	0.5	19	---	35				
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	11				
AA2038-2-0-5	10/30/2016	1603843	0.5	23	---	7.9				
AA2038-2-2-5	10/30/2016	1603843	2.5	14	---	13				
AA2038-3-0-5	10/30/2016	1603843	0.5	31	---	15				
AA2038-3-2-5	10/30/2016	1603843	2.5	13	---	8.0				
AA2038-4-0-5	10/30/2016	1603843	0.5	27	---	10				
AA2038-4-2-5	10/30/2016	1603843	2.5	16	---	13				
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	20	---	9.8				
AA2249-1-0-5	10/30/2016	1603843	0.5	21	---	12				
AA2249-1-2-5	10/30/2016	1603843	2.5	24	---	14				
AA2249-2-0-5	10/30/2016	1603843	0.5	33	---	12				
AA2249-2-2-5	10/30/2016	1603843	2.5	22	---	19				
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	35	---	13				
FS-2-0-5	10/23/2016	1603435	0.5	31	---	14				
IM-1-2-5	10/30/2016	1603842	2.5	20	---	6.7				
IM-2-2-5	10/30/2016	1603842	2.5	20	---	35				
IM-2b-0-5	11/23/2016	1604246	0.5	4.6	---	160	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	100	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	17	---	150	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5 DUP	10/30/2016	1603842	0.5	25	---	74				
IM-3c-0-5	11/23/2016	1604246	0.5	22	---	61				
IM-3c-2-5	11/23/2016	1604246	2.5	66	X	---			Perform laboratory analysis for STLC for arsenic	

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LAUSD - Roosevelt High School
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Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TtLC	STLC	TtLC	STLC	TtLC	STLC	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:				12	5.0	80	5.0			
IM-3c-3.5	11/23/2016	1604246	3.5	16	---	---	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	X	X	X	Perform laboratory analysis for STLC for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---	---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X	X	X	Perform laboratory analysis for STLC for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X	X	X	Perform laboratory analysis for STLC for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X	X	X	Perform laboratory analysis for STLC for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X	X	X	Perform laboratory analysis for STLC for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X	X	X	Perform laboratory analysis for STLC for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X	X	X	Perform laboratory analysis for STLC for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X	X	X	Perform laboratory analysis for STLC for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X	X	X	Perform laboratory analysis for STLC for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X	X	X	Perform laboratory analysis for STLC for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X	X	X	Perform laboratory analysis for STLC for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X	X	X	Perform laboratory analysis for STLC for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X	X	X	Perform laboratory analysis for STLC for lead

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LAUSD - Roosevelt High School
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Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Screening Level:				12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRR) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRR) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 30, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604231
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on November 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light gray horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-13a-0.5	1604231-01	Soil	11/22/16 7:42	11/22/16 18:30
B-13a-2.5	1604231-02	Soil	11/22/16 7:44	11/22/16 18:30
B-13c-2.5	1604231-04	Soil	11/22/16 7:50	11/22/16 18:30
B-13b-2.5	1604231-06	Soil	11/22/16 7:55	11/22/16 18:30
B-14a-2.5	1604231-10	Soil	11/22/16 8:04	11/22/16 18:30
B-14b-2.5	1604231-12	Soil	11/22/16 8:10	11/22/16 18:30
B-15b-0.5	1604231-13	Soil	11/22/16 8:04	11/22/16 18:30
B-15b-2.5	1604231-14	Soil	11/22/16 8:06	11/22/16 18:30
B-15a-2.5	1604231-16	Soil	11/22/16 8:10	11/22/16 18:30
B-16a-2.5	1604231-20	Soil	11/22/16 8:23	11/22/16 18:30
C-17b-0.5	1604231-27	Soil	11/22/16 8:40	11/22/16 18:30
C-17b-2.5	1604231-28	Soil	11/22/16 8:42	11/22/16 18:30
C-13c-2.5	1604231-34	Soil	11/22/16 8:40	11/22/16 18:30
B-13d-0.5	1604231-37	Soil	11/22/16 8:55	11/22/16 18:30
B-13d-2.5	1604231-38	Soil	11/22/16 8:57	11/22/16 18:30
P15b-0.5	1604231-57	Soil	11/22/16 12:02	11/22/16 18:30
P15d-2.5	1604231-61	Soil	11/22/16 12:12	11/22/16 18:30
Q15a-2.5	1604231-66	Soil	11/22/16 12:25	11/22/16 18:30
Q15a-3.5	1604231-67	Soil	11/22/16 12:27	11/22/16 18:30
P16c-2.5	1604231-69	Soil	11/22/16 12:25	11/22/16 18:30
R15d-0.5	1604231-81	Soil	11/22/16 13:09	11/22/16 18:30
CRA-2b-2.5	1604231-92	Soil	11/22/16 14:12	11/22/16 18:30
CRA-2c-3.5	1604231-AB	Soil	11/22/16 14:35	11/22/16 18:30
P15d-2.5 DUP	1604231-AJ	Soil	11/22/16 12:12	11/22/16 18:30
Q15a-3.5 DUP	1604231-AK	Soil	11/22/16 12:27	11/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-13a-0.5

Lab ID: 1604231-01

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.11	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 11:39	J, D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-13a-2.5

Lab ID: 1604231-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 13:49	
Lead	95	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:49	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-13c-2.5

Lab ID: 1604231-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.8	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:51	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-13b-2.5

Lab ID: 1604231-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.5	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 13:52	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-14a-2.5

Lab ID: 1604231-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.1	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 13:53	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-14b-2.5

Lab ID: 1604231-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 13:54	



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Project Number : Roosevelt HS, 265642
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Reported : 01/30/2017

Client Sample ID B-15b-0.5

Lab ID: 1604231-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	180	1.0	0.11	1	B6K1079	11/30/2016	12/01/16 18:50	



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Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-15b-2.5

Lab ID: 1604231-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	32	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 13:55	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-15a-2.5

Lab ID: 1604231-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.6	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 13:56	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-16a-2.5

Lab ID: 1604231-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	22	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 14:00	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID C-17b-0.5

Lab ID: 1604231-27

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.036	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 11:52	J, D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID C-17b-2.5

Lab ID: 1604231-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	65	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 14:01	



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Reported : 01/30/2017

Client Sample ID C-13c-2.5

Lab ID: 1604231-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	26	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 14:02	



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Client Sample ID B-13d-0.5

Lab ID: 1604231-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K1079	11/30/2016	12/01/16 19:06	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-13d-2.5

Lab ID: 1604231-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B7A0800	01/27/2017	01/27/17 14:03	



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Client Sample ID P15b-0.5

Lab ID: 1604231-57

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.014	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 11:55	J, D1



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Reported : 01/30/2017

Client Sample ID P15d-2.5

Lab ID: 1604231-61

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0702	01/24/2017	01/24/17 13:33	D1



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Project Number : Roosevelt HS, 265642
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Reported : 01/30/2017

Client Sample ID Q15a-2.5

Lab ID: 1604231-66

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 11:59	D1



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Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID Q15a-3.5

Lab ID: 1604231-67

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.029	0.25	0.014	5	B7A0702	01/24/2017	01/24/17 13:41	J, D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID P16c-2.5

Lab ID: 1604231-69

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	0.11	1	B7A0800	01/27/2017	01/27/17 14:04	



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Project Number : Roosevelt HS, 265642
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Reported : 01/30/2017

Client Sample ID R15d-0.5

Lab ID: 1604231-81

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:04	D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CRA-2b-2.5

Lab ID: 1604231-92

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.82	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:06	D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CRA-2c-3.5

Lab ID: 1604231-AB

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.017	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:08	J, D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID P15d-2.5 DUP

Lab ID: 1604231-AJ

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.043	0.25	0.014	5	B7A0740	01/25/2017	01/25/17 16:41	J, D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID Q15a-3.5 DUP

Lab ID: 1604231-AK

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0740	01/25/2017	01/25/17 16:49	D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K1079 - EPA 3050B_S									
Blank (B6K1079-BLK1)				Prepared: 11/30/2016 Analyzed: 12/1/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6K1079-BS1)				Prepared: 11/30/2016 Analyzed: 12/1/2016					
Arsenic	42.3415	1.0	50.0000		84.7	80 - 120			
Lead	43.6076	1.0	50.0000		87.2	80 - 120			
Duplicate (B6K1079-DUP1)				Source: 1604231-11		Prepared: 11/30/2016 Analyzed: 12/1/2016			
Arsenic	20.1940	1.0		18.7846	NR		7.23	20	
Lead	69.4333	1.0		157.204	NR		77.5	20	R
Matrix Spike (B6K1079-MS1)				Source: 1604231-11		Prepared: 11/30/2016 Analyzed: 12/1/2016			
Arsenic	109.982	1.0	125.000	18.7846	73.0	59 - 103			
Lead	156.103	1.0	125.000	157.204	-0.881	34 - 129			M1
Matrix Spike Dup (B6K1079-MSD1)				Source: 1604231-11		Prepared: 11/30/2016 Analyzed: 12/1/2016			
Arsenic	110.541	1.0	125.000	18.7846	73.4	59 - 103	0.507	20	
Lead	165.072	1.0	125.000	157.204	6.29	34 - 129	5.59	20	M1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0800 - EPA 3050B_S

Blank (B7A0800-BLK1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	ND	1.0			NR				
Lead	0.127456	1.0			NR				J

LCS (B7A0800-BS1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	44.5704	1.0	50.0000		89.1	80 - 120			
Lead	45.4439	1.0	50.0000		90.9	80 - 120			

Duplicate (B7A0800-DUP1)

Source: 1604222-02

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	0.765775	1.0		0.718222	NR		6.41	20	J
Lead	7.29464	1.0		7.74579	NR		6.00	20	

Matrix Spike (B7A0800-MS1)

Source: 1604222-02

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	94.2476	1.0	125.000	0.718222	74.8	59 - 103			
Lead	107.842	1.0	125.000	7.74579	80.1	34 - 129			

Matrix Spike Dup (B7A0800-MSD1)

Source: 1604222-02

Prepared: 1/27/2017 Analyzed: 1/27/2017

Arsenic	91.1902	1.0	125.000	0.718222	72.4	59 - 103	3.30	20	
Lead	100.378	1.0	125.000	7.74579	74.1	34 - 129	7.17	20	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0628 - EPA 3010A_S

Blank (B7A0628-BLK1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead ND 0.050 NR

LCS (B7A0628-BS1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 0.952794 0.050 1.00000 95.3 80 - 120

Duplicate (B7A0628-DUP1)

Source: 1604231-01

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 0.020046 0.25 0.108735 NR 138 20 R, J

Matrix Spike (B7A0628-MS1)

Source: 1604231-01

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 2.30918 0.25 2.50000 0.108735 88.0 78 - 109

Matrix Spike Dup (B7A0628-MSD1)

Source: 1604231-01

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 2.40756 0.25 2.50000 0.108735 92.0 78 - 109 4.17 20



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0702 - EPA 3010A_S

Blank (B7A0702-BLK1)

Prepared: 1/24/2017 Analyzed: 1/24/2017

Lead ND 0.050 NR

LCS (B7A0702-BS1)

Prepared: 1/24/2017 Analyzed: 1/24/2017

Lead 1.01978 0.050 1.00000 102 80 - 120

Duplicate (B7A0702-DUP1)

Source: 1604231-61RE1

Prepared: 1/24/2017 Analyzed: 1/24/2017

Lead ND 0.25 ND NR 20

Matrix Spike (B7A0702-MS1)

Source: 1604231-61RE1

Prepared: 1/24/2017 Analyzed: 1/24/2017

Lead 3.89496 0.25 2.50000 ND 156 78 - 109 M1

Matrix Spike Dup (B7A0702-MSD1)

Source: 1604231-61RE1

Prepared: 1/24/2017 Analyzed: 1/24/2017

Lead 2.53654 0.25 2.50000 ND 101 78 - 109 42.2 20 R



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9685 Research Drive

Irvine, CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0740 - EPA 3010A_S

Blank (B7A0740-BLK1)

Prepared: 1/25/2017 Analyzed: 1/25/2017

Lead ND 0.050 NR

LCS (B7A0740-BS1)

Prepared: 1/25/2017 Analyzed: 1/25/2017

Lead 0.974153 0.050 1.00000 97.4 80 - 120

Duplicate (B7A0740-DUP1)

Source: 1604231-AJRE1

Prepared: 1/25/2017 Analyzed: 1/25/2017

Lead 0.016863 0.25 0.042669 NR 86.7 20 R, J

Matrix Spike (B7A0740-MS1)

Source: 1604231-AJRE1

Prepared: 1/25/2017 Analyzed: 1/25/2017

Lead 2.42516 0.25 2.50000 0.042669 95.3 78 - 109

Matrix Spike Dup (B7A0740-MSD1)

Source: 1604231-AJRE1

Prepared: 1/25/2017 Analyzed: 1/25/2017

Lead 2.40386 0.25 2.50000 0.042669 94.4 78 - 109 0.882 20



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 18, 2017 2:21 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Rachelle – we need to conduct additional analyses for TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 44 samples to be analyzed for TCLP for lead. Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L	
Units: Screening Level:									
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	92	5.5	X	Perform laboratory analysis for TCLP for lead
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	86	5.8	X	Perform laboratory analysis for TCLP for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	110	4.7	---	
B-6b-2.5	11/23/2016	1604246	2.5	---	---	280	16	X	Perform laboratory analysis for TCLP for lead
B-6c-0.5	11/23/2016	1604246	0.5	---	---	85	2.6	---	
B-6c-3.5	11/23/2016	1604246	3.5	---	---	190	3.9	---	
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	---	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	3.3	---	
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	4.1	---	
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	0.029 J	
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.3	X	Perform laboratory analysis for TCLP for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	3.6	---	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	0.095 J	
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	3.0	---	
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	6.6	X	Perform laboratory analysis for TCLP for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	ND<0.25	
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	74	X	Perform laboratory analysis for TCLP for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	10	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	13	X	Perform laboratory analysis for TCLP for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	22	X	Perform laboratory analysis for TCLP for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	0.41	
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	ND<1.0	---	
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	17	X	Perform laboratory analysis for TCLP for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	0.59	
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	9.7	X	Perform laboratory analysis for TCLP for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	6.0	X	Perform laboratory analysis for TCLP for lead
AUD-6-0.25	11/21/2016	1604222	0.25	---	---	160	7.8	X	Perform laboratory analysis for TCLP for lead
AUD-6-0.5	10/16/2016	1603634	0.5	5.2	---	670	26	1.5	

DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California											
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods							Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B					
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L			
Units:				Screening Level:							
AUD-6b-0.5	11/21/2016	1604222	0.5	12	5.0	80	13	5.0	X	Perform laboratory analysis for TCLP for lead	
AUD-6c-0.25	11/21/2016	1604222	0.25	--	---	160	110	3.9	---		
AUD-6c-0.25 DUP	11/21/2016	1604222	0.25	--	---	82	6.2	---	X	Perform laboratory analysis for TCLP for lead	
AA1917-4-2.5	10/29/2016	1603827	2.5	2.5	---	220	0.52 J	---	---		
AA2684-2-0.5	10/29/2016	1603827	0.5	18	---	19	---	---	---		
AA2684-2-2.5	10/29/2016	1603827	2.5	20	---	16	---	---	---		
AA2684-3-2.5	10/29/2016	1603827	2.5	33	---	25	---	---	---		
AA2684-6-0.5	12/21/2016	1604849	0.5	27	---	---	---	---	---		
AA2684-6-0.5 DUP	12/21/2016	1604849	0.5	28	---	---	---	---	---		
AA2684-6-2.5	12/21/2016	1604849	2.5	28	---	---	---	---	---		
AA2684-6-3.5	12/21/2016	1604849	3.5	23	---	---	---	---	---		
AA2543-1-2.5	10/29/2016	1603827	2.5	34	---	26	---	---	---		
AA2543-2-0.5	10/29/2016	1603827	0.5	23	---	17	---	---	---		
AA2543-2-2.5	10/29/2016	1603827	2.5	25	---	17	---	---	---		
AA2543-2-2.5 DUP	10/29/2016	1603827	2.5	24	---	17	---	---	---		
AA2543-5-0.5	10/29/2016	1603827	0.5	25	---	16	---	---	---		
AA2543-5-2.5	10/29/2016	1603827	2.5	34	---	26	---	---	---		
AA2543-6-0.5	10/29/2016	1603827	0.5	39	---	34	---	---	---		
AA2543-6-2.5	10/29/2016	1603827	2.5	19	---	35	---	---	---		
AA2038-1-0.5	10/30/2016	1603843	0.5	23	---	11	---	---	---		
AA2038-1-2.5	10/30/2016	1603843	2.5	23	---	7.9	---	---	---		
AA2038-2-0.5	10/30/2016	1603843	0.5	14	---	13	---	---	---		
AA2038-2-2.5	10/30/2016	1603843	2.5	31	---	15	---	---	---		
AA2038-3-0.5	10/30/2016	1603843	0.5	13	---	8.0	---	---	---		
AA2038-3-2.5	10/30/2016	1603843	2.5	27	---	10	---	---	---		
AA2038-4-0.5	10/30/2016	1603843	0.5	16	---	13	---	---	---		
AA2038-4-2.5	10/30/2016	1603843	2.5	20	---	9.8	---	---	---		
AA2038-4-2.5 DUP	10/30/2016	1603843	2.5	21	---	12	---	---	---		
AA2038-7-0.5	12/21/2016	1604849	0.5	12	---	---	---	---	---		
AA2249-1-0.5	10/30/2016	1603843	0.5	24	---	14	---	---	---		
AA2249-1-2.5	10/30/2016	1603843	2.5	33	---	12	---	---	---		
AA2249-2-0.5	10/30/2016	1603843	0.5	22	---	19	---	---	---		
AA2249-2-2.5	10/30/2016	1603843	2.5	35	---	13	---	---	---		
AA2249-2-2.5 DUP	10/30/2016	1603843	2.5	31	---	14	---	---	---		
FS-2-0.5	10/23/2016	1603435	0.5	20	---	6.7	---	---	---		
IM-1-2.5	10/30/2016	1603842	2.5	20	---	35	---	---	---		
IM-2-2.5	10/30/2016	1603842	2.5	4.6	---	160	13	---	X	Perform laboratory analysis for TCLP for lead	
IM-2b-0.5	11/23/2016	1604246	0.5	17	---	100	6.8	---	X	Perform laboratory analysis for TCLP for lead	
IM-2b-0.5 DUP	11/23/2016	1604246	0.5	17	---	150	6.3	---	X	Perform laboratory analysis for TCLP for lead	
IM-3-0.5	10/30/2016	1603842	0.5	25	---	74	---	---	---		
IM-3-0.5 DUP	10/30/2016	1603842	0.5	22	---	61	---	---	---		
IM-3c-0.5	11/23/2016	1604246	0.5	66	4.1	---	---	---	---		

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC	STLC	TTLC	STLC	TCLP	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	
Screening Level:									
IM-3c-2.5	11/23/2016	1604246	2.5	12	5.0	80	5.0		
IM-3c-3.5	11/23/2016	1604246	3.5	22	---	---	---	---	
IM-4-0.5	10/30/2016	1603842	0.5	16	---	66	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	20	---	22	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	29	---	54	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	22	---	40	---	---	
IM-5d-0.5	11/23/2016	1604246	0.5	24	---	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	10	X	Perform laboratory analysis for TCLP for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	5.4	X	Perform laboratory analysis for TCLP for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	4.5	---	
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	140	X	Perform laboratory analysis for TCLP for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	5.6	X	Perform laboratory analysis for TCLP for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---	
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	6.3	X	Perform laboratory analysis for TCLP for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	26	X	Perform laboratory analysis for TCLP for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	32	X	Perform laboratory analysis for TCLP for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	22	X	Perform laboratory analysis for TCLP for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	11	X	Perform laboratory analysis for TCLP for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	25	X	Perform laboratory analysis for TCLP for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---	
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	9.0	X	Perform laboratory analysis for TCLP for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	12	X	Perform laboratory analysis for TCLP for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	25	X	Perform laboratory analysis for TCLP for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	14	X	Perform laboratory analysis for TCLP for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	8.5	X	Perform laboratory analysis for TCLP for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	4.9	---	
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	9.7	X	Perform laboratory analysis for TCLP for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	2.2	---	
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	8.5	X	Perform laboratory analysis for TCLP for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	4.8	---	
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	7.3	X	Perform laboratory analysis for TCLP for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	11	X	Perform laboratory analysis for TCLP for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	7.4	X	Perform laboratory analysis for TCLP for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	3.6	---	
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	6.0	X	Perform laboratory analysis for TCLP for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	190	X	Perform laboratory analysis for TCLP for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	120	X	Perform laboratory analysis for TCLP for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	6.5	X	Perform laboratory analysis for TCLP for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	0.78 J	---	
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	1.9	---	

DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels Preliminary Environmental Assessment Equivalent Report LAUSD - Roosevelt High School 456 South Mathews Street Los Angeles, California									
Table 2									
Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TTLC mg/L	Comments
Screening Level: Units:				12	5.0	80	5.0		
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	8.3	X	Perform laboratory analysis for TCLP for lead
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	2.2	---	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	17	X	Perform laboratory analysis for TCLP for lead
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	1.3	---	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	3.4	---	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---	
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---	
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	1.5	---	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---	
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---	
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---	
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---	
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---	
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---	
Notes:									
Table summarizes arsenic and lead laboratory analytical reports for soil samples.									
Samples with detectable concentrations presented in bold font .									
Arsenic screening level based on California background level.									
TTTLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).									
OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).									
LAUSD = Los Angeles Unified School District									
ID = Identification									
bgs = below ground surface									
EPA = Environmental Protection Agency									
--- = not analyzed									
mg/kg = milligrams per kilogram									
mg/L = micrograms per liter									
μg/L = Duplicate of preceding sample									
DUP = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.									
J = Result is an estimated concentration.									
(1) = 3.8J Aroclor 1260									
(2) = 11J Aroclor 1260									

Notes:
 Table summarizes arsenic and lead laboratory analytical reports for soil samples.
 Samples with detectable concentrations presented in bold font.
 Arsenic screening level based on California background level.
 TTLC screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3, Table 1 (DTSC, 2015).
 OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level [carcinogenic or non-carcinogenic, lowest value] (EPA, 2015).
 LAUSD = Los Angeles Unified School District
 ID = Identification
 bgs = below ground surface
 EPA = Environmental Protection Agency
 --- = not analyzed

mg/kg = milligrams per kilogram
 mg/L = milligrams per liter
 µg/L = micrograms per liter
 DUP = Duplicate of preceding sample
 J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.
 Result is an estimated concentration.

(1) = 3.8J Aroclor 1260
 (2) = 11J Aroclor 1260



Diane Galvan

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, January 23, 2017 5:34 PM
To: Diane Galvan
Cc: Rachelle Arada; customer.relations@atiglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Diane – you are correct; there is not a sample labeled P16c-3.5 My mistake – sorry for the confusion.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Diane Galvan [mailto:Diane@atiglobal.com]
Sent: Monday, January 23, 2017 1:43 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: Rachelle Arada <Rachelle@atiglobal.com>; customer.relations@atiglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Hi John,

I have received your request but don't see sample labeled P16c-3.5 under ATL WO# 1604231 in our system.

Thanks,

Diane

From: Nordenstam, John [mailto:jnordenstam@trcsolutions.com]
Sent: Monday, January 23, 2017 11:45 AM
To: Diane Galvan
Subject: FW: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Diane – I understand that Rachelle is out of the office. Please see email below for request for additional analyses of samples from LAUSD Roosevelt HS. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John

Sent: Monday, January 23, 2017 11:21 AM

To: Rachelle Arada <Rachelle@atlglobal.com>

Cc: Edric Caballero (edric@atlglobal.com) <edric@atlglobal.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>

Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – we need to conduct additional analyses for arsenic and lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 35 samples to be analyzed for arsenic and/or lead. Refer to the summary of sample IDs and corresponding lab report numbers presented below. Please include TRC PO # 100816 on your invoice.

Area 3 (Lab report #1604231)

- B-13a-2.5 for As and Pb
- B-13b-2.5 for As
- B-13c-2.5 for Pb
- B-13d-0.5 for As
- B-13d-2.5 for As
- B-14a-2.5 for As
- B-14b-2.5 for As
- B-15a-2.5 for As
- B-15b-0.5 for Pb
- B-15b-2.5 for Pb
- B-16a-2.5 for As
- C-13c-2.5 for Pb
- C-17b-2.5 for Pb

Area 5 (Lab report #1604222)

- AUD-3a-2.5 for Pb
- AUD-3b-2.5 for Pb
- AUD-3c-2.5 for Pb
- AUD-4c-2.5 for Pb
- AUD-5b-2.5 for Pb
- AUD-6b-2.5 for Pb

Area 6

- CR1-2d-2.5 for Pb (Lab report #1604246)
- CR1-4b-2.5 for Pb (Lab report #1604246)
- P16c-2.5 for Pb (Lab report #1604231)
- P16c-3.5 for Pb (Lab report #1604231)
- AA2038-7-0.5 for Pb (Lab report # 1604849)
- AA2038-7-2.5 for Pb (Lab report # 1604849)
- AA2038-8-0.5 for Pb (Lab report # 1604849)
- AA2038-8-2.5 for Pb (Lab report # 1604849)
- AA2038-9-0.5 for Pb (Lab report # 1604849)
- AA2038-9-2.5 for Pb (Lab report # 1604849)
- AA2543-7-0.5 for Pb (Lab report # 1604849)
- AA2543-7-2.5 for Pb (Lab report # 1604849)
- AA2543-8-0.5 for Pb (Lab report # 1604849)
- AA2543-8-2.5 for Pb (Lab report # 1604849)

Area 9 (Lab report #1604222)

- X-17b-2.5 As
- Y-17c-2.5 As

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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February 08, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604231
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on November 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram below it.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/08/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-13a-2.5	1604231-02	Soil	11/22/16 7:44	11/22/16 18:30
B-15b-0.5	1604231-13	Soil	11/22/16 8:04	11/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/08/2017

Client Sample ID B-13a-2.5

Lab ID: 1604231-02

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.8	1.0	0.057	20	B7B0164	02/06/2017	02/06/17 16:51	D1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/08/2017

Client Sample ID B-15b-0.5

Lab ID: 1604231-13

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.8	1.0	0.057	20	B7B0164	02/06/2017	02/06/17 16:58	D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/08/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7B0164 - STLC_S Extraction										
Blank (B7B0164-BLK1)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	ND	1.0	0.057			NR				
Blank (B7B0164-BLK2)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	ND	1.0	0.057			NR				
LCS (B7B0164-BS1)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	2.05504			2.00000		103	80 - 120			
Duplicate (B7B0164-DUP1)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	5.45957	1.0	0.057		6.75438	NR		21.2	20	R
Duplicate (B7B0164-DUP2)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	4.88367	1.0	0.057		4.74528	NR		2.87	20	
Matrix Spike (B7B0164-MS1)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	7.56159			2.50000	6.75438	32.3	44 - 130			M1
Matrix Spike (B7B0164-MS2)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	7.09335			2.50000	4.74528	93.9	44 - 130			
Matrix Spike Dup (B7B0164-MSD1)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	7.64388			2.50000	6.75438	35.6	44 - 130	1.08	20	M1



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 02/08/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, February 01, 2017 2:09 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC Extraction for Lead

Rachelle – we need to conduct additional analyses for lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 3 samples to be analyzed for STLC extraction for lead:

Area 3 (Lab report #1604231)

- B-13a-2.5
- B-15b-0.5

Area 6 (Lab report # 1604849)

- AA2038-9-0.5

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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February 17, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604231
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on November 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-13a-2.5	1604231-02	Soil	11/22/16 7:44	11/22/16 18:30
R15d-2.5	1604231-82	Soil	11/22/16 13:12	11/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

Client Sample ID B-13a-2.5

Lab ID: 1604231-02

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.050	0.25	0.014	5	B7B0422	02/15/2017	02/15/17 14:43	J



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

Client Sample ID R15d-2.5

Lab ID: 1604231-82

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	41	1.0	0.11	1	B7B0372	02/14/2017	02/15/17 09:30	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7B0372 - EPA 3050B_S

Blank (B7B0372-BLK1)

Prepared: 2/14/2017 Analyzed: 2/15/2017

Arsenic	ND	1.0	0.70			NR				
Lead	0.121252	1.0	0.11			NR				J

LCS (B7B0372-BS1)

Prepared: 2/14/2017 Analyzed: 2/15/2017

Arsenic	45.5399	1.0	0.70	50.0000		91.1	80 - 120			
Lead	46.8751	1.0	0.11	50.0000		93.8	80 - 120			

Duplicate (B7B0372-DUP1)

Source: 1604231-82

Prepared: 2/14/2017 Analyzed: 2/15/2017

Arsenic	1.91146	1.0	0.70		1.82583	NR		4.58	20	
Lead	43.6508	1.0	0.11		41.4522	NR		5.17	20	

Matrix Spike (B7B0372-MS1)

Source: 1604231-82

Prepared: 2/14/2017 Analyzed: 2/15/2017

Arsenic	87.2570	1.0	0.70	125.000	1.82583	68.3	59 - 103			
Lead	139.512	1.0	0.11	125.000	41.4522	78.4	34 - 129			

Matrix Spike Dup (B7B0372-MSD1)

Source: 1604231-82

Prepared: 2/14/2017 Analyzed: 2/15/2017

Arsenic	91.2853	1.0	0.70	125.000	1.82583	71.6	59 - 103	4.51	20	
Lead	134.830	1.0	0.11	125.000	41.4522	74.7	34 - 129	3.41	20	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7B0422 - EPA 3010A_S

Blank (B7B0422-BLK1)

Prepared: 2/15/2017 Analyzed: 2/15/2017

Lead	ND	0.050	0.0028		NR
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LCS (B7B0422-BS1)

Prepared: 2/15/2017 Analyzed: 2/15/2017

Lead	0.961200	0.050	0.0028	1.00000	96.1	80 - 120
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Duplicate (B7B0422-DUP1)

Source: 1604231-02

Prepared: 2/15/2017 Analyzed: 2/15/2017

Lead	0.045264	0.25	0.014		0.049816	NR	9.58	20	J
------	----------	------	-------	--	----------	----	------	----	---

Matrix Spike (B7B0422-MS1)

Source: 1604231-02

Prepared: 2/15/2017 Analyzed: 2/15/2017

Lead	2.44560	0.25	0.014	2.50000	0.049816	95.8	78 - 109
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Matrix Spike Dup (B7B0422-MSD1)

Source: 1604231-02

Prepared: 2/15/2017 Analyzed: 2/15/2017

Lead	2.39376	0.25	0.014	2.50000	0.049816	93.8	78 - 109	2.14	20
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Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 02/17/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Thursday, February 09, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP Extraction for Lead

Rachelle – we need to conduct additional analyses for lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 2 samples to be analyzed for TCLP extraction for lead:

Area 3 (Lab report #1604231)

- B-13a-2.5

Area 6 (Lab report # 1604849)

- AA2038-9-0.5

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Wednesday, February 01, 2017 2:09 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Edric Caballero (edric@atlglobal.com) <edric@atlglobal.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC Extraction for Lead

Rachelle – we need to conduct additional analyses for lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 3 samples to be analyzed for STLC extraction for lead:

Area 3 (Lab report #1604231)

- B-13a-2.5
- B-15b-0.5

Area 6 (Lab report # 1604849)

- AA2038-9-0.5

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Thursday, February 09, 2017 12:24 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com; Maxwell, Jeff
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – I crossed checked all the additional sample analyses that I requested and I found one additional sample for analysis that I missed:

Area 6 - Sample ID: R15d-2.5 for lead (Lab report #1604231)

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
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From: Diane Galvan [mailto:Diane@atlglobal.com]
Sent: Monday, January 23, 2017 5:35 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: Rachelle Arada <Rachelle@atlglobal.com>; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

No problem John!

Thanks,

Diane

From: Nordenstam, John [mailto:jnordenstam@trcsolutions.com]
Sent: Monday, January 23, 2017 5:34 PM
To: Diane Galvan
Cc: Rachelle Arada; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Diane – you are correct; there is not a sample labeled P16c-3.5 My mistake – sorry for the confusion.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
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February 24, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604231
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on November 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/24/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Q15b-2.5	1604231-73	Soil	11/22/16 12:49	11/22/16 18:30
Q15d-2.5	1604231-75	Soil	11/22/16 12:55	11/22/16 18:30
R15a-2.5	1604231-79	Soil	11/22/16 13:05	11/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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TRC
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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/24/2017

Client Sample ID Q15b-2.5

Lab ID: 1604231-73

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.0	1.0	0.11	1	B7B0600	02/22/2017	02/22/17 16:37	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/24/2017

Client Sample ID Q15d-2.5

Lab ID: 1604231-75

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	97	1.0	0.11	1	B7B0600	02/22/2017	02/22/17 16:45	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/24/2017

Client Sample ID R15a-2.5

Lab ID: 1604231-79

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.7	1.0	0.11	1	B7B0600	02/22/2017	02/22/17 16:46	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 02/24/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7B0600 - EPA 3050B_S

Blank (B7B0600-BLK1)

Prepared: 2/22/2017 Analyzed: 2/22/2017

Arsenic	ND	1.0	0.70			NR		NR		
Lead	0.152493	1.0	0.11			NR		NR		J

LCS (B7B0600-BS1)

Prepared: 2/22/2017 Analyzed: 2/22/2017

Arsenic	44.9154	1.0	0.70	50.0000		89.8	80 - 120	NR		
Lead	46.0407	1.0	0.11	50.0000		92.1	80 - 120	NR		

Duplicate (B7B0600-DUP1)

Source: 1604231-73

Prepared: 2/22/2017 Analyzed: 2/22/2017

Arsenic	2.54839	1.0	0.70		2.34248	NR		8.42	20	
Lead	3.61206	1.0	0.11		6.01174	NR		49.9	20	R

Matrix Spike (B7B0600-MS1)

Source: 1604231-73

Prepared: 2/22/2017 Analyzed: 2/22/2017

Arsenic	91.8256	1.0	0.70	125.000	2.34248	71.6	59 - 103	NR		
Lead	94.9627	1.0	0.11	125.000	6.01174	71.2	34 - 129	NR		

Matrix Spike Dup (B7B0600-MSD1)

Source: 1604231-73

Prepared: 2/22/2017 Analyzed: 2/22/2017

Arsenic	89.0970	1.0	0.70	125.000	2.34248	69.4	59 - 103	3.02	20	
Lead	91.7561	1.0	0.11	125.000	6.01174	68.6	34 - 129	3.43	20	



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Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 02/24/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Friday, February 17, 2017 2:49 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com; Maxwell, Jeff
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – There are three additional sample analyses needed for the samples collected from Area 6 of LAUSD Roosevelt HS:

- Sample ID: Q-15b-2.5 for lead (Lab report #1604231)
- Sample ID: Q-15d-2.5 for lead (Lab report #1604231)
- Sample ID: R15a-2.5 for lead (Lab report #1604231)

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Thursday, February 09, 2017 12:24 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: customer.relations@atlglobal.com; Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – I crossed checked all the additional sample analyses that I requested and I found one additional sample for analysis that I missed:

Area 6 - Sample ID: R15d-2.5 for lead (Lab report #1604231)

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Diane Galvan [mailto:Diane@atlglobal.com]
Sent: Monday, January 23, 2017 5:35 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>



March 08, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604231
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on November 22, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 03/08/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Q15d-2.5	1604231-75	Soil	11/22/16 12:55	11/22/16 18:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 03/08/2017

Client Sample ID Q15d-2.5

Lab ID: 1604231-75

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.9	1.0	0.057	20	B7C0130	03/06/2017	03/06/17 15:28	D1



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 03/08/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7C0130 - STLC_S Extraction										
Blank (B7C0130-BLK1)					Prepared: 3/6/2017 Analyzed: 3/6/2017					
Lead	ND	1.0	0.057			NR		NR		
Blank (B7C0130-BLK2)					Prepared: 3/6/2017 Analyzed: 3/6/2017					
Lead	ND	1.0	0.057			NR		NR		
LCS (B7C0130-BS1)					Prepared: 3/6/2017 Analyzed: 3/6/2017					
Lead	1.99127			2.00000		99.6	80 - 120	NR		
Duplicate (B7C0130-DUP1)					Source: 1700928-02 Prepared: 3/6/2017 Analyzed: 3/6/2017					
Lead	0.072350	1.0	0.057		ND	NR		NR	20	J
Matrix Spike (B7C0130-MS1)					Source: 1700928-02 Prepared: 3/6/2017 Analyzed: 3/6/2017					
Lead	2.38799			2.50000	0.041693	93.9	44 - 130	NR		
Matrix Spike Dup (B7C0130-MSD1)					Source: 1700928-02 Prepared: 3/6/2017 Analyzed: 3/6/2017					
Lead	2.47145			2.50000	0.041693	97.2	44 - 130	3.44	20	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 03/08/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, March 01, 2017 3:21 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com; Maxwell, Jeff
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – Please conduct an STLC extraction for lead on Sample Q-15d-2.5 for lead. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Friday, February 17, 2017 2:49 PM
To: 'Rachelle Arada' <Rachelle@atlglobal.com>
Cc: 'customer.relations@atlglobal.com' <customer.relations@atlglobal.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – There are three additional sample analyses needed for the samples collected from Area 6 of LAUSD Roosevelt HS:

- Sample ID: Q-15b-2.5 for lead (Lab report #1604231)
- Sample ID: Q-15d-2.5 for lead (Lab report #1604231)
- Sample ID: R15a-2.5 for lead (Lab report #1604231)

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Thursday, February 09, 2017 12:24 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: customer.relations@atlglobal.com; Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb



December 16, 2016

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604246
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on November 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/16/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-12d-0.5	1604246-01	Soil	11/23/16 7:42	11/23/16 15:40
C-12a-0.5	1604246-03	Soil	11/23/16 7:50	11/23/16 15:40
C-12c-0.5	1604246-05	Soil	11/23/16 7:58	11/23/16 15:40
PE-3c-0.5	1604246-07	Soil	11/23/16 8:36	11/23/16 15:40
PE-3c-2.5	1604246-08	Soil	11/23/16 8:42	11/23/16 15:40
PE-3c-3.5	1604246-09	Soil	11/23/16 8:44	11/23/16 15:40
PE-3d-0.5	1604246-10	Soil	11/23/16 8:46	11/23/16 15:40
PE-3d-2.5	1604246-11	Soil	11/23/16 8:48	11/23/16 15:40
PE-3d-3.5	1604246-12	Soil	11/23/16 8:50	11/23/16 15:40
PE-3b-0.5	1604246-13	Soil	11/23/16 8:52	11/23/16 15:40
PE-3b-2.5	1604246-14	Soil	11/23/16 8:54	11/23/16 15:40
PE-3b-3.5	1604246-15	Soil	11/23/16 8:56	11/23/16 15:40
B-6d-0.5	1604246-16	Soil	11/23/16 9:54	11/23/16 15:40
B-6d-2.5	1604246-17	Soil	11/23/16 9:56	11/23/16 15:40
B-6d-3.5	1604246-18	Soil	11/23/16 10:00	11/23/16 15:40
B-6c-0.5	1604246-19	Soil	11/23/16 10:10	11/23/16 15:40
B-6c-2.5	1604246-20	Soil	11/23/16 10:13	11/23/16 15:40
B-6c-3.5	1604246-21	Soil	11/23/16 10:15	11/23/16 15:40
B-6b-0.5	1604246-22	Soil	11/23/16 10:26	11/23/16 15:40
B-6b-2.5	1604246-23	Soil	11/23/16 10:38	11/23/16 15:40
B-6b-3.5	1604246-24	Soil	11/23/16 10:40	11/23/16 15:40
IM-1d-0.5	1604246-25	Soil	11/23/16 11:42	11/23/16 15:40
IM-1d-2.5	1604246-26	Soil	11/23/16 11:48	11/23/16 15:40
IM-1b-0.5	1604246-27	Soil	11/23/16 11:54	11/23/16 15:40
IM-1b-2.5	1604246-28	Soil	11/23/16 11:56	11/23/16 15:40
IM-1b-3.5	1604246-29	Soil	11/23/16 11:58	11/23/16 15:40
IM-2b-0.5	1604246-30	Soil	11/23/16 11:59	11/23/16 15:40
IM-2b-2.5	1604246-31	Soil	11/23/16 12:02	11/23/16 15:40
IM-2b-3.5	1604246-32	Soil	11/23/16 12:04	11/23/16 15:40
IM-3c-0.5	1604246-33	Soil	11/23/16 12:05	11/23/16 15:40
IM-3c-2.5	1604246-34	Soil	11/23/16 12:06	11/23/16 15:40
IM-3c-3.5	1604246-35	Soil	11/23/16 12:08	11/23/16 15:40
IM-4d-0.5	1604246-36	Soil	11/23/16 12:12	11/23/16 15:40
IM-4d-2.5	1604246-37	Soil	11/23/16 12:20	11/23/16 15:40
IM-4d-3.5	1604246-38	Soil	11/23/16 12:22	11/23/16 15:40
IM-5d-0.5	1604246-39	Soil	11/23/16 12:24	11/23/16 15:40
IM-5d-2.5	1604246-40	Soil	11/23/16 12:26	11/23/16 15:40



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/16/2016

IM-5d-3.5	1604246-41	Soil	11/23/16 12:28	11/23/16 15:40
CR1-2a-0.5	1604246-42	Soil	11/23/16 12:52	11/23/16 15:40
CR1-2d-0.5	1604246-44	Soil	11/23/16 12:58	11/23/16 15:40
CR1-2b-0.5	1604246-46	Soil	11/23/16 13:05	11/23/16 15:40
CR1-5b-0.25	1604246-48	Soil	11/23/16 13:35	11/23/16 15:40
CR1-5b-0.5	1604246-49	Soil	11/23/16 13:37	11/23/16 15:40
CR1-5b-2.5	1604246-50	Soil	11/23/16 13:39	11/23/16 15:40
CR1-5b-3.5	1604246-51	Soil	11/23/16 13:40	11/23/16 15:40
CR1-5-0.25	1604246-52	Soil	11/23/16 13:42	11/23/16 15:40
CR1-5c-0.25	1604246-53	Soil	11/23/16 13:41	11/23/16 15:40
CR1-5c-0.5	1604246-54	Soil	11/23/16 13:43	11/23/16 15:40
CR1-5c-2.5	1604246-55	Soil	11/23/16 13:45	11/23/16 15:40
CR1-5c-3.5	1604246-56	Soil	11/23/16 13:48	11/23/16 15:40
CR1-5d-0.25	1604246-57	Soil	11/23/16 13:50	11/23/16 15:40
CR1-5d-0.5	1604246-58	Soil	11/23/16 13:51	11/23/16 15:40
CR1-5d-2.5	1604246-59	Soil	11/23/16 13:52	11/23/16 15:40
CR1-5d-3.5	1604246-60	Soil	11/23/16 13:54	11/23/16 15:40
CR1-4c-0.5	1604246-61	Soil	11/23/16 13:54	11/23/16 15:40
CR1-4b-0.5	1604246-63	Soil	11/23/16 14:00	11/23/16 15:40
EB-21	1604246-65	Water	11/23/16 14:15	11/23/16 15:40
EB-22	1604246-66	Water	11/23/16 14:17	11/23/16 15:40
PE-3d-0.5 DUP	1604246-67	Soil	11/23/16 8:46	11/23/16 15:40
B-6c-2.5 DUP	1604246-68	Soil	11/23/16 10:13	11/23/16 15:40
IM-2b-0.5 DUP	1604246-69	Soil	11/23/16 11:59	11/23/16 15:40
IM-5d-2.5 DUP	1604246-70	Soil	11/23/16 12:26	11/23/16 15:40
CR1-5b-0.25 DUP	1604246-71	Soil	11/23/16 13:35	11/23/16 15:40
CR1-5d-3.5 DUP	1604246-72	Soil	11/23/16 13:54	11/23/16 15:40

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID C-12d-0.5

Lab ID: 1604246-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.2	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:22	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/16/2016

Client Sample ID C-12a-0.5

Lab ID: 1604246-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:23	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/16/2016

Client Sample ID C-12c-0.5

Lab ID: 1604246-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	16	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:24	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID PE-3c-0.5

Lab ID: 1604246-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.2	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:25	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID PE-3c-2.5

Lab ID: 1604246-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.5	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:26	



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID PE-3c-3.5

Lab ID: 1604246-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.7	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:28	



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TRC

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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/16/2016

Client Sample ID PE-3d-0.5

Lab ID: 1604246-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	16	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:29	



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Client Sample ID PE-3d-2.5

Lab ID: 1604246-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	62	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:30	



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Client Sample ID PE-3d-3.5

Lab ID: 1604246-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	64	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:31	



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Client Sample ID PE-3b-0.5

Lab ID: 1604246-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:34	



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Client Sample ID PE-3b-2.5

Lab ID: 1604246-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	86	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:36	



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Client Sample ID PE-3b-3.5

Lab ID: 1604246-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	32	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:37	



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Client Sample ID B-6d-0.5

Lab ID: 1604246-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	0.11	1	B6K1082	11/30/2016	12/02/16 13:38	



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Client Sample ID B-6d-2.5

Lab ID: 1604246-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	18	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 13:54	



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Client Sample ID B-6d-3.5

Lab ID: 1604246-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	58	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 13:58	



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Client Sample ID B-6c-0.5

Lab ID: 1604246-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	85	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 13:59	



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Client Sample ID B-6c-2.5

Lab ID: 1604246-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	35	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:00	



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Client Sample ID B-6c-3.5

Lab ID: 1604246-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	190	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:02	



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Client Sample ID B-6b-0.5

Lab ID: 1604246-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	15	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:05	



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Client Sample ID B-6b-2.5

Lab ID: 1604246-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	280	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:06	



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Client Sample ID B-6b-3.5

Lab ID: 1604246-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.3	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:07	



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Client Sample ID IM-1d-0.5

Lab ID: 1604246-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.0	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:09	



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Client Sample ID IM-1d-2.5

Lab ID: 1604246-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.7	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:10	



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Client Sample ID IM-1b-0.5

Lab ID: 1604246-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.2	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:11	
Lead	44	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:11	



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Client Sample ID IM-1b-2.5

Lab ID: 1604246-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:12	
Lead	10	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:12	



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Client Sample ID IM-1b-3.5

Lab ID: 1604246-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:13	
Lead	8.5	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:13	



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Client Sample ID IM-2b-0.5

Lab ID: 1604246-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	17	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:14	
Lead	100	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:14	



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Client Sample ID IM-2b-2.5

Lab ID: 1604246-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.1	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:15	



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Client Sample ID IM-2b-3.5

Lab ID: 1604246-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.3	1.0	0.11	1	B6K1083	11/30/2016	12/02/16 14:19	



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Client Sample ID IM-3c-0.5

Lab ID: 1604246-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	66	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:20	



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Client Sample ID IM-3c-2.5

Lab ID: 1604246-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	22	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:21	



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Client Sample ID IM-3c-3.5

Lab ID: 1604246-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	0.70	1	B6K1083	11/30/2016	12/02/16 14:22	



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Client Sample ID IM-4d-0.5

Lab ID: 1604246-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.3	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:26	



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Client Sample ID IM-4d-2.5

Lab ID: 1604246-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:32	



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Client Sample ID IM-4d-3.5

Lab ID: 1604246-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.7	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:34	



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Client Sample ID IM-5d-0.5

Lab ID: 1604246-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	24	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:35	



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Client Sample ID IM-5d-2.5

Lab ID: 1604246-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.5	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:36	



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Client Sample ID IM-5d-3.5

Lab ID: 1604246-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:37	



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Client Sample ID CR1-2a-0.5

Lab ID: 1604246-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	75	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:38	



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Client Sample ID CR1-2d-0.5

Lab ID: 1604246-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	120	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:39	



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Client Sample ID CR1-2b-0.5

Lab ID: 1604246-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	74	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:40	



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Client Sample ID CR1-5b-0.25

Lab ID: 1604246-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:41	
Lead	190	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:41	



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Client Sample ID CR1-5b-0.5

Lab ID: 1604246-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	32	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:43	
Lead	630	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:43	



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Reported : 12/16/2016

Client Sample ID CR1-5b-2.5

Lab ID: 1604246-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:46	
Lead	140	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:46	



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Client Sample ID CR1-5b-3.5

Lab ID: 1604246-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:47	
Lead	12	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:47	



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Client Sample ID CR1-5-0.25

Lab ID: 1604246-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.3	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:49	
Lead	170	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:49	



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Client Sample ID CR1-5c-0.25

Lab ID: 1604246-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.6	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:50	
Lead	43	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:50	



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Client Sample ID CR1-5c-0.5

Lab ID: 1604246-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.9	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:51	
Lead	37	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:51	



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Client Sample ID CR1-5c-2.5

Lab ID: 1604246-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:52	
Lead	12	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:52	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID CR1-5c-3.5

Lab ID: 1604246-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:53	
Lead	6.6	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:53	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID CR1-5d-0.25

Lab ID: 1604246-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.6	1.0	0.70	1	B6K1084	11/30/2016	12/02/16 14:54	
Lead	91	1.0	0.11	1	B6K1084	11/30/2016	12/02/16 14:54	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID CR1-5d-0.5

Lab ID: 1604246-58

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.4	1.0	0.70	1	B6K1085	12/01/2016	12/02/16 15:05	
Lead	25	1.0	0.11	1	B6K1085	12/01/2016	12/02/16 15:05	



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Project Number : ROOSEVELT HS, 265642
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Reported : 12/16/2016

Client Sample ID CR1-5d-2.5

Lab ID: 1604246-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6K1085	12/01/2016	12/02/16 15:06	
Lead	22	1.0	0.11	1	B6K1085	12/01/2016	12/02/16 15:06	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID CR1-5d-3.5

Lab ID: 1604246-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	0.70	1	B6K1085	12/01/2016	12/02/16 15:07	
Lead	50	1.0	0.11	1	B6K1085	12/01/2016	12/02/16 15:07	



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Project Number : ROOSEVELT HS, 265642
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Reported : 12/16/2016

Client Sample ID CR1-4c-0.5

Lab ID: 1604246-61

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	53	1.0	0.11	1	B6K1085	12/01/2016	12/02/16 15:08	



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Reported : 12/16/2016

Client Sample ID CR1-4b-0.5

Lab ID: 1604246-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	350	1.0	0.11	1	B6K1085	12/01/2016	12/02/16 15:09	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID EB-21

Lab ID: 1604246-65

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K1088	11/30/2016	12/01/16 12:08	
Lead	0.0030	0.0050	0.0028	1	B6K1088	11/30/2016	12/01/16 12:08	J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID EB-22

Lab ID: 1604246-66

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B6K1088	11/30/2016	12/01/16 12:12	
Lead	ND	0.0050	0.0028	1	B6K1088	11/30/2016	12/01/16 12:12	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/16/2016

Client Sample ID PE-3d-0.5 DUP

Lab ID: 1604246-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	19	1.0	0.11	1	B6L0388	12/13/2016	12/15/16 11:49	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID B-6c-2.5 DUP

Lab ID: 1604246-68

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	26	1.0	0.11	1	B6L0388	12/13/2016	12/15/16 11:56	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID IM-2b-0.5 DUP

Lab ID: 1604246-69

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	17	1.0	0.70	1	B6L0388	12/13/2016	12/15/16 11:57	
Lead	150	1.0	0.11	1	B6L0388	12/13/2016	12/15/16 11:57	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Client Sample ID IM-5d-2.5 DUP

Lab ID: 1604246-70

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.3	1.0	0.70	1	B6L0388	12/13/2016	12/15/16 11:58	



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Project Number : ROOSEVELT HS, 265642
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Reported : 12/16/2016

Client Sample ID CR1-5b-0.25 DUP

Lab ID: 1604246-71

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B6L0388	12/13/2016	12/15/16 12:00	
Lead	180	1.0	0.11	1	B6L0388	12/13/2016	12/15/16 12:00	



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Project Number : ROOSEVELT HS, 265642

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Reported : 12/16/2016

Client Sample ID CR1-5d-3.5 DUP

Lab ID: 1604246-72

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6L0388	12/13/2016	12/15/16 12:01	
Lead	5.7	1.0	0.11	1	B6L0388	12/13/2016	12/15/16 12:01	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6K1082 - EPA 3050B_S									
Blank (B6K1082-BLK1)				Prepared: 11/30/2016 Analyzed: 12/2/2016					
Arsenic	ND	1.0			NR				
Lead	0.155659	1.0			NR				J
LCS (B6K1082-BS1)				Prepared: 11/30/2016 Analyzed: 12/2/2016					
Arsenic	42.4705	1.0	50.0000		84.9	80 - 120			
Lead	42.9960	1.0	50.0000		86.0	80 - 120			
Duplicate (B6K1082-DUP1)				Source: 1604231-95		Prepared: 11/30/2016 Analyzed: 12/2/2016			
Arsenic	2.26486	1.0		2.12888	NR		6.19	20	
Lead	50.8255	1.0		43.6691	NR		15.1	20	
Matrix Spike (B6K1082-MS1)				Source: 1604231-95		Prepared: 11/30/2016 Analyzed: 12/2/2016			
Arsenic	93.9734	1.0	125.000	2.12888	73.5	59 - 103			
Lead	186.447	1.0	125.000	43.6691	114	34 - 129			
Matrix Spike Dup (B6K1082-MSD1)				Source: 1604231-95		Prepared: 11/30/2016 Analyzed: 12/2/2016			
Arsenic	92.2272	1.0	125.000	2.12888	72.1	59 - 103	1.88	20	
Lead	130.128	1.0	125.000	43.6691	69.2	34 - 129	35.6	20	R



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1083 - EPA 3050B_S

Blank (B6K1083-BLK1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K1083-BS1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	46.5678	1.0	50.0000		93.1	80 - 120			
Lead	47.3163	1.0	50.0000		94.6	80 - 120			

Duplicate (B6K1083-DUP1)

Source: 1604246-17

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	2.15131	1.0		2.03886	NR		5.37	20	
Lead	31.0832	1.0		17.6481	NR		55.1	20	R

Matrix Spike (B6K1083-MS1)

Source: 1604246-17

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	99.2542	1.0	125.000	2.03886	77.8	59 - 103			
Lead	127.988	1.0	125.000	17.6481	88.3	34 - 129			

Matrix Spike Dup (B6K1083-MSD1)

Source: 1604246-17

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	101.007	1.0	125.000	2.03886	79.2	59 - 103	1.75	20	
Lead	183.890	1.0	125.000	17.6481	133	34 - 129	35.8	20	M1, R



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1084 - EPA 3050B_S

Blank (B6K1084-BLK1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K1084-BS1)

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	44.7795	1.0	50.0000		89.6	80 - 120			
Lead	45.6869	1.0	50.0000		91.4	80 - 120			

Duplicate (B6K1084-DUP1)

Source: 1604246-36

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	6.98444	1.0		9.27938	NR		28.2	20	R
Lead	21.8503	1.0		25.8473	NR		16.8	20	

Matrix Spike (B6K1084-MS1)

Source: 1604246-36

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	100.336	1.0	125.000	9.27938	72.8	59 - 103			
Lead	113.607	1.0	125.000	25.8473	70.2	34 - 129			

Matrix Spike Dup (B6K1084-MSD1)

Source: 1604246-36

Prepared: 11/30/2016 Analyzed: 12/2/2016

Arsenic	103.568	1.0	125.000	9.27938	75.4	59 - 103	3.17	20	
Lead	117.951	1.0	125.000	25.8473	73.7	34 - 129	3.75	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1085 - EPA 3050B_S

Blank (B6K1085-BLK1)

Prepared: 12/1/2016 Analyzed: 12/2/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6K1085-BS1)

Prepared: 12/1/2016 Analyzed: 12/2/2016

Arsenic	44.6631	1.0	50.0000		89.3	80 - 120			
Lead	45.5624	1.0	50.0000		91.1	80 - 120			

Duplicate (B6K1085-DUP1)

Source: 1604246-63

Prepared: 12/1/2016 Analyzed: 12/2/2016

Arsenic	17.9081	1.0		23.3799	NR		26.5	20	R
Lead	294.054	1.0		351.139	NR		17.7	20	

Matrix Spike (B6K1085-MS1)

Source: 1604246-63

Prepared: 12/1/2016 Analyzed: 12/2/2016

Arsenic	114.002	1.0	125.000	23.3799	72.5	59 - 103			
Lead	375.327	1.0	125.000	351.139	19.4	34 - 129			M1

Matrix Spike Dup (B6K1085-MSD1)

Source: 1604246-63

Prepared: 12/1/2016 Analyzed: 12/2/2016

Arsenic	111.618	1.0	125.000	23.3799	70.6	59 - 103	2.11	20	
Lead	372.384	1.0	125.000	351.139	17.0	34 - 129	0.787	20	M1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6K1088 - EPA 3010A_W

Blank (B6K1088-BLK1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B6K1088-BS1)

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	0.876868	0.010	1.00000		87.7	80 - 120			
Lead	0.970161	0.0050	1.00000		97.0	80 - 120			

Duplicate (B6K1088-DUP1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	

Matrix Spike (B6K1088-MS1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.19257	0.010	2.50000	ND	87.7	74 - 123			
Lead	2.42081	0.0050	2.50000	ND	96.8	78 - 109			

Matrix Spike Dup (B6K1088-MSD1)

Source: 1604222-95

Prepared: 11/30/2016 Analyzed: 12/1/2016

Arsenic	2.27086	0.010	2.50000	ND	90.8	74 - 123	3.51	20	
Lead	2.51290	0.0050	2.50000	ND	101	78 - 109	3.73	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 12/16/2016

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0388 - EPA 3050B_S

Blank (B6L0388-BLK1)

Prepared: 12/13/2016 Analyzed: 12/15/2016

Arsenic	ND	1.0			NR	
Lead	ND	1.0			NR	

LCS (B6L0388-BS1)

Prepared: 12/13/2016 Analyzed: 12/15/2016

Arsenic	50.4192	1.0	50.0000		101	80 - 120
Lead	53.0184	1.0	50.0000		106	80 - 120

Duplicate (B6L0388-DUP1)

Source: 1604246-67

Prepared: 12/13/2016 Analyzed: 12/15/2016

Arsenic	1.75018	1.0		1.95201	NR	10.9	20
Lead	16.2150	1.0		18.9116	NR	15.4	20

Matrix Spike (B6L0388-MS1)

Source: 1604246-67

Prepared: 12/13/2016 Analyzed: 12/15/2016

Arsenic	100.589	1.0	125.000	1.95201	78.9	59 - 103
Lead	119.775	1.0	125.000	18.9116	80.7	34 - 129

Matrix Spike Dup (B6L0388-MSD1)

Source: 1604246-67

Prepared: 12/13/2016 Analyzed: 12/15/2016

Arsenic	100.425	1.0	125.000	1.95201	78.8	59 - 103	0.163	20
Lead	120.546	1.0	125.000	18.9116	81.3	34 - 129	0.642	20



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 12/16/2016

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Company: **TRC** Address: **9685 RESEARCH DRIVE** City: **IRVINE** State: **CA** Zip: **92618** Tel: _____ Fax: _____

Attn: **JOHN NORDENSTAM** Email: _____

Company: **TRC** SEND INVOICE TO: _____ Email: _____

Address: **9685 RESEARCH DRIVE** City: **IRVINE** State: **CA** Zip: **92618**

Project Name: **ROOSEVELT HS** Quote No: **E16I131**

Project No.: **265642** PO #: **100816**

Sampler: **R. SURRENCY**

Lab No. _____

Sample ID / Location _____

Sample Description _____

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1604246-01	C-12d-0.5		11-23-16	0742	8260 / 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	51514	ROUTINE
2	-02	C-12d-2.5			0748	8082 (PCBs)	WATER - STORM / WASTE		ROUTINE
3	-03	C-12a-0.5			0750	8081 (Organochlorine Pesticides)	WATER - DRINKING / GROUND		ROUTINE
4	-04	C-12a-2.5			0753	8270 (Semi-volatiles)	SOLIDS / WIPE / FILTER		ROUTINE
5	-05	C-12c-0.5			0758	8015 (DRO)	AQUEOUS / LAYERED - OIL		ROUTINE
6	-06	C-12c-2.5			0900	8015 (GRO)	WATER - STORM / WASTE		ROUTINE
7	-07	PE-3c-0.5			0836	8015 (DRO)	WATER - DRINKING / GROUND		ROUTINE
8	-08	PE-3c-2.5			0842	8015 (GRO)	SOLIDS / WIPE / FILTER		ROUTINE
9	-09	PE-3c-3.5			0844	8015 (DRO)	AQUEOUS / LAYERED - OIL		ROUTINE
10	-10	PE-3d-0.5			0846	8015 (GRO)	WATER - STORM / WASTE		ROUTINE

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature _____ Submitter Print Name _____

Date: 11/23/16 Time: 1:40

Date: 11/23/16 Time: 1:40

Date: _____ Time: _____

Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 2 of 7

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> 6. PRESERVED	2. HEADSPACE (VDA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:	<input type="checkbox"/> 3. CONTAINER INTACT	3. CONTAINER INTACT	<input type="checkbox"/> Y <input type="checkbox"/> N
	<input type="checkbox"/> 4. SEALED	4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: TRC	Address: 9685 RESEARCH DRIVE	Tel: _____
Attn: JOHN NORDENSTAM	City: IRVINE	State: CA Zip: 92618 Fax: _____
Company: TRC	Address: _____	SEND INVOICE TO: _____ Email: _____
Address: 9685 RESEARCH DR	City: IRVINE	State: _____ Zip: _____
City: IRVINE	State: CA Zip: 92618	

Project Name: ROOSEVELT HS		Quote No: E161131		Special Instructions/Comments:	
Project No.: 265642		PO #: 100816			
Sampler: R SURRENCY					
ITEM	Lab No.	Sample Description			
1	1604246-11	PE-3d-2.5	11-23-16	0848	
2	17 PE-3d-3.5			0856	
3	13 PE-3b-0.5			0852	
4	14 PE-3b-2.5			0854	
5	15 PE-3b-3.5			0856	
6	16 B-6d-0.5			0954	
7	17 B-6d-2.5			0956	
8	18 B-6d-3.5			1000	
9	19 B-6c-0.5			1010	
10	20 B-6c-2.5			1013	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Submitter Print Name	Signature
Date: 11/23/16	Time: 1:54

Relinquished by: (Signature and Printed Name)	Date: 11-23-16	Time: 1540
Relinquished by: (Signature and Printed Name)	Date: _____	Time: _____
Relinquished by: (Signature and Printed Name)	Date: _____	Time: _____

CHAIN OF CUSTODY RECORD

Page 3 of 7

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	2. HEADSPACE (VOA)	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC <input type="checkbox"/>
		3. CONTAINER INTACT	<input type="checkbox"/> 6. PRESERVED <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/> 7. COOLER TEMP, deg. C: <input type="checkbox"/>

Company:	TRC	Address:	9685 RESEARCH DRIVE	Tel:	
Attn:	JOHN NORDENSTAM	City:	IRVINE	State:	CA
Company:	TRC	Zip:	92618	Fax:	
Address:	9685 RESEARCH DR.	SEND INVOICE TO: <input checked="" type="checkbox"/> same as SEND REPORT TO			
City:	IRVINE	State:	CA	Zip:	92618
Attn:		Attn:		Email:	
Company:		Company:			
Address:		Address:			
City:		City:		State:	

Project Name:		Quote No:	Special Instructions/Comments:	
ROOSEVELT HS		E161131		
Project No.:		PO #:		
265642		100816		
Sampler:		R SURRENCY		
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1604246-21	B-6C-35		1123-16
2	-22 B-6B-0.5			1026
3	-23 B-6B-2.5			1038
4	-24 B-6B-3.5			1040
5	-25 IM-1d-0.5			1142
6	-26 IM-1d-2.5			1148
7	-27 IM-1b-0.5			1154
8	-28 IM-1b-2.5			1156
9	-29 IM-1b-3.5			1158
10	-30 IM-2b-0.5			1159

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Signature	
Submitter Print Name	

Relinquished by: (Signature and Printed Name)	Date: 11-23-16	Time: 1540
Relinquished by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:

**ADVANCED TECHNOLOGY
LABORATORIES**
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Company: TRC		Address: 9685 RESEARCH DR		Tel:	
City: IRVINE		State: CA		Fax:	
Zip: 92618		SEND INVOICE TO:		Email:	
Attn:		Attn:		Email:	
Company:		Company:		Company:	
Address:		Address:		Address:	
City:		City:		City:	
State: CA		State:		State:	
Zip: 92618		Zip:		Zip:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:		PO #:			
Sampler:					
ROOSEVELT HS	E161131				
265642	100816				
R SURGENCY					
ITEM	Lab No.	Sample Description		Date	Time
		Sample ID / Location			
1	1604246-31	IM-26-2.5	11-23	46	1202
2	-32	IM-26-3.5			1204
3	-33	IM-30-0.5			1205
4	-34	IM-30-2.5			1206
5	-35	IM-30-3.5			1208
6	-36	IM-40-0.5			1212
7	-37	IM-40-2.5			1220
8	-38	IM-40-3.5			1222
9	-39	IM-50-0.5			1224
10	-40	IM-50-2.5			1226

samples will be disposed of after 14 calendar days after receipt of samples.

7. Electronic records maintained for five (5) years from report date.

8. Hard copy reports will be disposed of after 45 calendar days after report date.

9. Storage and Report Fees:

- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per reprocessed EDO.

10. Rush TCA/STC samples: add 2 days to analysis TAT for extraction on procedure.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____

Signature _____

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)
Pross, Steven	11-23-16	1540	Friedman
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)

[illegible]

CHAIN OF CUSTODY RECORD

Page 6 of 7

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCO Ver. 20130715

Method of Transport	Sample Conditions Upon Receipt															
<input checked="" type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other: _____	<table><tr><td>Condition</td><td>Y</td><td>N</td></tr><tr><td>1. CHILLED</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>2. HEADSPACE (VOA)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>3. CONTAINER INTACT</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>4. SEALED</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></table>	Condition	Y	N	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>
Condition	Y	N														
1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>														
2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>														
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>														
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>														

Company: **TRC** Address: **9685 RESEARCH DRIVE** Tel: _____
City: **IRVINE** State: **CA** Zip: **92618** Fax: _____
Attn: _____ Email: _____
Company: **JOHN KORDENSTAM** Attn: _____
Company: **TRC** Company: _____
Address: **9685 RESEARCH DR** Address: _____
City: **IRVINE** State: **CA** Zip: **92618** City: _____ State: _____ Zip: _____

Project Name: **ROOSEVELT HS** Quote No: **E161131**
Project No.: **265642** PO #: **100816**
Sampler: _____

Special Instructions/Comments:			Sample Description	
ITEM	Lab No.	Sample ID / Location	Date	Time
1	1604246-51	CR1-5b-3.5	11-23-16	1340
2	-52	CR1-5-0.25		1342
3	-53	CR1-5c-0.25		1341
4	-54	CR1-5c-0.5		1343
5	-55	CR1-5c-2.5		1345
6	-56	CR1-5c-3.5		1348
7	-57	CR1-5d-0.25		1350
8	-58	CR1-5d-0.5		1351
9	-59	CR1-5d-2.5		1352
10	-60	CR1-5d-3.5		1354

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 1: 100% Surcharge SAME BUSINESS DAY (COB 5:00 PM)
TAT = 2: 200% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 3: 300% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 4: 400% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 5: 500% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 6: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples, air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Storage of report fee: disposed of after 45 calendar days from report date.
9. Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
10. Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
11. Hard copy and regenerated reports/EODs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reproprocessed EOD.
12. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.
13. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Relinquished by: (Signature and Printed Name) **John Kordenstam** Date: **11-23-16** Time: **1540**
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

Date: **11/23/16** Time: **1540**
Date: _____ Time: _____
Date: _____ Time: _____

CHAIN OF CUSTODY RECORD

Page 7 of 7

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCO-Ver. 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VOA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____	3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg. C.
		4. SEALED	<input type="checkbox"/>

Company: TRC	Address: 9685 RESEARCH DRIVE		Tel: _____	
Attn: JOHN NORDENSTAM	City: IRVINE	State: CA	Zip: 92618	Fax: _____
SEND REPORT TO:		SEND INVOICE TO:		
Email: _____		Email: _____		
Company: TRC	Address: _____		State: _____	
City: IRVINE	State: CA	Zip: 92619	Zip: _____	

Project Name: ROOSEVELT HS		Quote No: E161731		Special Instructions/Comments:	
Project No.: 265642		PO #: 100016			
Sampler: R SURRENCY					
ITEM	Lab No.	Sample ID / Location		Sample Description	
1	1604246-61	CRI-4C-0.5		11-23-16 1354	
2	-62	CRI-4C-2.5		1358	
3	-63	CRI-4B-0.5		1400	
4	-64	CRI-4B-2.5		1405	
5	-65	EB-21		1415	
6	-66	EB-22		1417	
7					
8					
9					
10					

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Submitter Print Name _____	
Signature _____	
Date: 11/23/16	Time: 1:54

Relinquished by: (Signature and Printed Name) John Nordenstam		Date: 11-23-16	Time: 1540
Relinquished by: (Signature and Printed Name)		Date: _____	Time: _____
Relinquished by: (Signature and Printed Name)		Date: _____	Time: _____

CHAIN OF CUSTODY RECORD

Page 2 of 7

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt															
<input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> OnTrac <input type="checkbox"/> Other: _____	<table border="1"><thead><tr><th>Condition</th><th>Y</th><th>N</th></tr></thead><tbody><tr><td>1. CHILLED</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>2. HEADSPACE (VDA)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>3. CONTAINER INTACT</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>4. SEALED</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>	Condition	Y	N	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/>	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>
Condition	Y	N														
1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>														
2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/>														
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>														
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>														

Company: TRC	Address: 9685 RESEARCH DRIVE	City: IRVINE	State: CA	Zip: 92618
Attn: JOHN NORDENTAM	Email: _____			
Company: TRC	Address: _____			
Address: 9685 RESEARCH DR	City: IRVINE			
City: IRVINE	State: CA			
Zip: 92618	Special Instructions/Comments: _____			

ITEM	Lab No.	Sample Description		Date	Time
		Sample ID / Location	Time		
1		PE-3d-2.5	11-23-16	0848	
2		PE-3d-3.5		0856	
3		PE-3b-0.5		0852	
4		PE-3b-2.5		0854	
5		PE-3b-3.5		0856	
6		B-6d-0.5		0954	
7		B-6d-2.5		0956	
8		B-6d-3.5		1000	
9		B-6c-0.5		1010	
10		B-6c-2.5 DUB		1013	

Project Name: ROSEVELT HS	Quote No: E161131	Special Instructions/Comments: _____
Project No.: 265642	PO #: 100216	
Sampler: R SURENCY		

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: (Signature and Printed Name) **John Nordentam** Date: **11-23-16** Time: **1540**

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCC Ver: 20130715
Sample Conditions Upon Receipt
Method of Transport
Condition Y N
1. CHILLED ☐ ATL ☐ 5. # OF SAMPLES MATCH COC ☐
2. HEADSPACE (VDA) ☐ OnTrac ☐
3. CONTAINER INTACT ☐ 6. PRESERVED ☐
4. SEALED ☐ 7. COOLER TEMP. deg. C. ☐
8. OTHER: ☐

Company: TRC
Address: 9005 RESEARCH DR.
City: IRVINE
State: CA
Zip: 92618
Attn: JOHN NORDENSTAM
Company: TRC
Address: 9005 RESEARCH DR.
City: IRVINE
State: CA
Zip: 92618
Tel: (562) 989-4045
Fax: (562) 989-4040
SEND REPORT TO: ☒ same as SEND INVOICE TO
SEND INVOICE TO: ☒ same as SEND REPORT TO

Project Name: ROSEVILLE HS
Project No.: E167131
Sample: R. SURENCY
Quote No.: 100316
PO #: 765642
Special Instructions/Comments: 100316

ITEM	Lab No.	Sample Description		Date	Time	Encircle or Write Requested Analysis										Encircle Sample Matrix				Container	QA/QC
		Sample ID / Location				8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-Volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	6010 / 7000 (Title 22 Metals)	TO-15	LEAD - 6010	ARSENIC - 6010	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	
1		IM-26-2.5		11-23-16	1202																
2		IM-26-3.5			1204																
3		IM-30-0.5			1205																
4		IM-30-0.5			1206																
5		IM-30-3.5			1208																
6		IM-40-0.5			1212																
7		IM-40-2.5			1220																
8		IM-40-3.5			1222																
9		IM-50-0.5			1224																
10		IM-50-2.5 DUP			1226																

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.
Submitter Print Name: _____
Signature: _____
Date: _____
Time: _____
Received by: (Signature and Printed Name) _____
Date: 11-23-16
Time: 1540
Relinquished by: (Signature and Printed Name) _____
Date: _____
Time: _____
Relinquished by: (Signature and Printed Name) _____
Date: _____
Time: _____

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, Holiday, or serious work - ask for quote.
5. Subjective to the subcontract lab - ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples, air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy records will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$30/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per EDO processed EDO.
10. R. (PST) minimum turnaround time is 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: TBC		Address: 9685 RESEA RCH DR		City: IRVINE		State: CA		Zip: 92618		Tel:		Fax:	
Attn: JOHN NUDDEN STAM		Email:		SEND REPORT TO:		SEND INVOICE TO:		Email:		Attn:			
Company: TBC		Address: 9685 RESEARCH DR		City: IRVINE		State: CA		Zip: 92618		Tel:		Fax:	
Attn:		Email:		SEND REPORT TO:		SEND INVOICE TO:		Email:		Attn:			
Company:		Address:		City:		State:		Zip:		Tel:		Fax:	

ITEM	Lab No.	Special Instructions/Comments:					
		Quote No: EIGI131 PO #: 100816					
Project Name: ROOSEVELT HS		Sample Description					
Project No.: 265642		Sample ID / Location	Date	Time			
Sampler: R SUGRI-KEY							
1		IM - 5d - 3.5	11/23/16	1228			
2		CRI - 2a - 0.5		1252			
3		CRI - 2a - 2.5		1256			
4		CRI - 2d - 0.5		1258			
5		CRI - 2d - 2.5		1300			
6		CRI - 2b - 0.5		1305			
7		CRI - 2b - 2.5		1308			
8	✓	CRI - 5b - 0.5 DUP		1335			
9		CRI - 5b - 0.5		1337			
10		CRI - 5b - 2.5		1339			

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:30 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business Day at 8:00 AM.
3. The following turnaround time conditions apply:
 - TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
 - TAT = 2: 50% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
 - TAT = 3: 30% Surcharge AND BUSINESS DAY (COB 5:00 PM)
 - TAT = 4: 20% Surcharge AND BUSINESS DAY (COB 5:00 PM)
 - TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT = 15 business days. Projects requiring shorter TAT's will incur a surcharge
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days from receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
 - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage of hold is requested.
 - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
 - Hand copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforms/ ad report; \$35 per reprocesed EOD.
10. Rush TAT/751C sampling add 2 days to analysis TAT for extraction on procedure.
11. Rush TAT/751C sampling add 2 days to analysis TAT for analysis of 751C.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted:

Submitter Print Name _____ Signature _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) _____

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)
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Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)
---	-------	-------	---

CHAIN OF CUSTODY RECORD

Page 6 of 7

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Condition	<input type="checkbox"/> Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (VDA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C
<input type="checkbox"/> Other:		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. OTHER

Company: TRC		Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA		Zip: 92618	
Attn: JOHN HORDENSTAM		Email: 		Attn: 		Email: 		Fax: 	
Company: TRC		Address: 		City: 		State: 		Zip: 	
Address: 9685 RESEARCH DR		City: IRVINE		State: CA		Zip: 92618		Tel: 	

Project Name: ROOSEVELT HHS		Quote No: E161131	Special Instructions/Comments:	
Project No: 265642		PO #:		
Sampler: 100016				
ITEM	Lab No.	Sample ID / Location	Date	Time
1		CR1-56-3.5	11/23/16	1340
2		CR1-5-0.25		1342
3		CR1-5c-0.25		1341
4		CR1-5c-0.5		1343
5		CR1-5c-2.5		1345
6		CR1-5c-3.5		1349
7		CR1-5d-0.25		1350
8		CR1-5d-0.5		1351
9		CR1-5d-2.5		1352
10		CR1-5d-3.5 DUP		1354

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: _____ Date: _____

Submitter Print Name: _____

Relinquished by: Signature: John Hordenstam	Received by: Signature and Printed Name: _____
Relinquished by: Signature and Printed Name: _____	Received by: Signature and Printed Name: _____
Relinquished by: Signature and Printed Name: _____	Received by: Signature and Printed Name: _____

CHAIN OF CUSTODY RECORD

Page 7 of 7

Instruction: Complete all shaded areas.

For Laboratory Use Only
Method of Transport
Sample Conditions Upon Receipt
Condition Y N Y N
1. CHILLED ☐ ATL ☐ 5. # OF SAMPLES MATCH COC ☐
2. HEADSPACE (N/A) ☐ FedEx ☐ OnTrac ☐
3. CONTAINER INTACT ☐ ISO ☐ 6. PRESERVED ☐
4. SEALED ☐ Other: ☐ 7. COOLER TEMP. deg. C: ☐

Company: TRC
Address: 9685 RESEARCH DRIVE
City: IRVINE
State: CA
Zip: 92618
Attn: JOHN NORDENSTAM
Company: TRC
Address: 9685 RESEARCH DRIVE
City: IRVINE
State: CA
Zip: 92618
Tel: (562) 989-4045
Fax: (562) 989-4040
SEND REPORT TO: Email: ☐ same as SEND REPORT TO
SEND INVOICE TO: Email: ☐ same as SEND REPORT TO

Project Name: ROOSE VIELT HS
Project No.: F16131
Sample: 265642
Sampler: BR SURENCY
Quote No.: F16131
PO #: 100316
Special Instructions/Comments:
Lab No. Sample ID / Location Sample Description Date Time
1 CRI-46-0.5 11-23-16 1354
2 CRI-46-2.5 11-23-16 1358
3 CRI-46-0.5 11-23-16 1400
4 CRI-46-2.5 11-23-16 1405
5 EB-21 11-23-16 1415
6 EB-22 11-23-16 1417
7
8
9
10
Encircle or Write Requested Analysis
8260 / 624 (Volatiles) 8015 (GRO) 8015 (DRO) 8270 (Semi-volatiles) 8081 (Organochlorine Pesticides) 8082 (PCBs) 6010 / 7000 (Title 22 Metals) TO-15
Encircle Sample Matrix
SOIL / SEDIMENT / SLUDGE SOLIDS / WIPE / FILTER WATER - DRINKING / GROUND WATER - STORM / WASTE AQUEOUS / LAYERED - OIL
Container
Type: 1-Tube, 2-VOL, 3-Liter, 4-Pint
5-Liter, 6-Tedlar, 7 - Canister
Material: 1-Glass, 2-Plastic, 3-Metal
Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4 - Ac, 5-Zn (Ac) 2, 6-NaOH, 7-NH4OH, 8-Me2SO4
QA/QC
☐ Routine
☐ Caltrans
☐ Legal
☐ RW/QCB
☐ Level IV
REMARKS

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.
Submitter Print Name: _____ Signature: _____
Date: _____ Time: _____
Received by: (Signature and Printed Name) _____ Date: 11-23-16 Time: 1540
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____
1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 0 - 300K Surcharge SAME BUSINESS DAY (received by 9:00 AM)
TAT = 1 - 500K Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 2 - 500K Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 3 - 30K Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 4 - 20K Surcharge 5TH BUSINESS DAY (COB 5:00 PM)
TAT = 5 - NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontractors: CO-13. All subcontractors requiring shorter TATs will incur a surcharge.
6. Relinquish to the sub and lab, not per contract.
7. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; all samples will be disposed of after 14 calendar days after receipt of samples.
8. Electronic records maintained for 1 yr (5) years from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$30/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EODs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$25 per reprocessed EOD.
10. Rush TAT/SLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.



January 16, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604246
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on November 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PE-3b-2.5	1604246-14	Soil	11/23/16 8:54	11/23/16 15:40
B-6c-0.5	1604246-19	Soil	11/23/16 10:10	11/23/16 15:40
B-6c-3.5	1604246-21	Soil	11/23/16 10:15	11/23/16 15:40
B-6b-2.5	1604246-23	Soil	11/23/16 10:38	11/23/16 15:40
IM-2b-0.5	1604246-30	Soil	11/23/16 11:59	11/23/16 15:40
IM-3c-0.5	1604246-33	Soil	11/23/16 12:05	11/23/16 15:40
CR1-2d-0.5	1604246-44	Soil	11/23/16 12:58	11/23/16 15:40
CR1-5b-0.25	1604246-48	Soil	11/23/16 13:35	11/23/16 15:40
CR1-5b-0.5	1604246-49	Soil	11/23/16 13:37	11/23/16 15:40
CR1-5b-2.5	1604246-50	Soil	11/23/16 13:39	11/23/16 15:40
CR1-5-0.25	1604246-52	Soil	11/23/16 13:42	11/23/16 15:40
CR1-5d-0.25	1604246-57	Soil	11/23/16 13:50	11/23/16 15:40
CR1-4b-0.5	1604246-63	Soil	11/23/16 14:00	11/23/16 15:40
IM-2b-0.5 DUP	1604246-69	Soil	11/23/16 11:59	11/23/16 15:40
CR1-5b-0.25 DUP	1604246-71	Soil	11/23/16 13:35	11/23/16 15:40

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID PE-3b-2.5

Lab ID: 1604246-14

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.8	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:40	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID B-6c-0.5

Lab ID: 1604246-19

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.6	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:41	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

Client Sample ID B-6c-3.5

Lab ID: 1604246-21

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.9	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:42	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID B-6b-2.5

Lab ID: 1604246-23

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	16	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:43	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID IM-2b-0.5

Lab ID: 1604246-30

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.8	1.0	0.057	20	B7A0224	01/09/2017	01/09/17 19:44	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID IM-3c-0.5

Lab ID: 1604246-33

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.13	20	B7A0224	01/09/2017	01/09/17 19:46	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CR1-2d-0.5

Lab ID: 1604246-44

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	26	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 17:01	D1



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

Client Sample ID CR1-5b-0.25

Lab ID: 1604246-48

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.0	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 17:02	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CR1-5b-0.5

Lab ID: 1604246-49

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	25	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 17:03	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CR1-5b-2.5

Lab ID: 1604246-50

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 17:07	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CR1-5-0.25

Lab ID: 1604246-52

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 17:08	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CR1-5d-0.25

Lab ID: 1604246-57

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.5	1.0	0.057	20	B7A0390	01/13/2017	01/13/17 17:09	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID CR1-4b-0.5

Lab ID: 1604246-63

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	0.057	20	B7A0439	01/16/2017	01/16/17 14:22	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

Client Sample ID IM-2b-0.5 DUP

Lab ID: 1604246-69

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.3	1.0	0.057	20	B7A0389	01/13/2017	01/13/17 12:47	D1



Certificate of Analysis

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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/16/2017

Client Sample ID CR1-5b-0.25 DUP

Lab ID: 1604246-71

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	0.057	20	B7A0389	01/13/2017	01/13/17 12:51	D1



Certificate of Analysis

TRC
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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7A0224 - STLC_S Extraction

Blank (B7A0224-BLK1)

Prepared: 1/9/2017 Analyzed: 1/9/2017

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

Blank (B7A0224-BLK2)

Prepared: 1/9/2017 Analyzed: 1/9/2017

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B7A0224-BS1)

Prepared: 1/9/2017 Analyzed: 1/9/2017

Arsenic	2.14598		2.00000		107	80 - 120			
Lead	2.03687		2.00000		102	80 - 120			

Duplicate (B7A0224-DUP1)

Source: 1604231-AB

Prepared: 1/9/2017 Analyzed: 1/9/2017

Arsenic	0.190586	1.0		0.140224	NR		30.4	20	R, J
Lead	5.93532	1.0		5.58095	NR		6.15	20	

Duplicate (B7A0224-DUP2)

Source: 1604246-33

Prepared: 1/9/2017 Analyzed: 1/9/2017

Arsenic	4.38532	1.0		4.05810	NR		7.75	20	
Lead	5.61466	1.0		5.40362	NR		3.83	20	

Matrix Spike (B7A0224-MS1)

Source: 1604231-AB

Prepared: 1/9/2017 Analyzed: 1/9/2017

Arsenic	2.60399		2.00000	0.140224	123	90 - 110			M1
Lead	7.69641		2.00000	5.58095	106	44 - 130			

Matrix Spike (B7A0224-MS2)

Source: 1604246-33

Prepared: 1/9/2017 Analyzed: 1/9/2017

Arsenic	6.40956		2.00000	4.05810	118	90 - 110			M1
Lead	7.49784		2.00000	5.40362	105	44 - 130			

Matrix Spike Dup (B7A0224-MSD1)

Source: 1604231-AB

Prepared: 1/9/2017 Analyzed: 1/10/2017

Arsenic	2.62109		2.00000	0.140224	124	90 - 110	0.655	20	M1
Lead	8.20907		2.00000	5.58095	131	44 - 130	6.45	20	M1



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7A0389 - STLC_S Extraction

Blank (B7A0389-BLK1)

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

Blank (B7A0389-BLK2)

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B7A0389-BS1)

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	1.93225		2.00000		96.6	80 - 120			
Lead	1.99002		2.00000		99.5	80 - 120			

Duplicate (B7A0389-DUP1)

Source: 1604892-04

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	11.0199	1.0		10.7516	NR		2.47	20	
Lead	0.156843	1.0		0.155279	NR		1.00	20	J

Duplicate (B7A0389-DUP2)

Source: 1700063-35

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	ND	1.0		ND	NR			20	
Lead	1.45590	1.0		1.47774	NR		1.49	20	

Matrix Spike (B7A0389-MS1)

Source: 1604892-04

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	13.1603		2.50000	10.7516	96.3	90 - 110			
Lead	2.72943		2.50000	0.155279	103	44 - 130			

Matrix Spike (B7A0389-MS2)

Source: 1700063-35

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	2.59577		2.50000	0.039949	102	90 - 110			
Lead	3.97823		2.50000	1.47774	100	44 - 130			

Matrix Spike Dup (B7A0389-MSD1)

Source: 1604892-04

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	12.7911		2.50000	10.7516	81.6	90 - 110	2.85	20	M1
Lead	2.64958		2.50000	0.155279	99.8	44 - 130	2.97	20	



Certificate of Analysis

TRC
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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7A0390 - STLC_S Extraction

Blank (B7A0390-BLK1)

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	ND	1.0			NR	
Lead	ND	1.0			NR	

Blank (B7A0390-BLK2)

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	ND	1.0			NR	
Lead	ND	1.0			NR	

LCS (B7A0390-BS1)

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	2.17421		2.00000		109	80 - 120
Lead	2.07992		2.00000		104	80 - 120

Duplicate (B7A0390-DUP1)

Source: 1700062-01

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	ND	1.0		ND	NR		20
Lead	2.12101	1.0		2.16394	NR	2.00	20

Duplicate (B7A0390-DUP2)

Source: 1700062-10

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	ND	1.0		0.157703	NR		20
Lead	7.06563	1.0		6.40204	NR	9.85	20

Matrix Spike (B7A0390-MS1)

Source: 1700062-01

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	2.52028		2.50000	0.016758	100	90 - 110
Lead	4.42433		2.50000	2.16394	90.4	44 - 130

Matrix Spike (B7A0390-MS2)

Source: 1700062-10

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	2.69779		2.50000	0.157703	102	90 - 110
Lead	9.15801		2.50000	6.40204	110	44 - 130

Matrix Spike Dup (B7A0390-MSD1)

Source: 1700062-01

Prepared: 1/13/2017 Analyzed: 1/13/2017

Arsenic	2.41338		2.50000	0.016758	95.9	90 - 110	4.33	20
Lead	4.28918		2.50000	2.16394	85.0	44 - 130	3.10	20



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/16/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0439 - STLC_S Extraction

Blank (B7A0439-BLK1)

Prepared: 1/16/2017 Analyzed: 1/16/2017

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B7A0439-BS1)

Prepared: 1/16/2017 Analyzed: 1/16/2017

Arsenic	1.86944		2.00000		93.5	80 - 120			
Lead	1.90158		2.00000		95.1	80 - 120			

Duplicate (B7A0439-DUP1)

Source: 1604246-63

Prepared: 1/16/2017 Analyzed: 1/16/2017

Arsenic	0.632798	1.0		0.610228	NR		3.63	20	J
Lead	23.5037	1.0		22.4063	NR		4.78	20	

Matrix Spike (B7A0439-MS1)

Source: 1604246-63

Prepared: 1/16/2017 Analyzed: 1/16/2017

Arsenic	2.83526		2.50000	0.610228	89.0	90 - 110			M1
Lead	24.0797		2.50000	22.4063	66.9	44 - 130			

Matrix Spike Dup (B7A0439-MSD1)

Source: 1604246-63

Prepared: 1/16/2017 Analyzed: 1/16/2017

Arsenic	2.95792		2.50000	0.610228	93.9	90 - 110	4.23	20	
Lead	25.2844		2.50000	22.4063	115	44 - 130	4.88	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

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Reported : 01/16/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC	STLC	TTLC	STLC	TCLP	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	
Screening Level:									
PE-3-2.5	10/15/2016	1603632	2.5	1.8	5.0	80	5.0		Perform laboratory analysis for STLC for lead
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	92	X		Perform laboratory analysis for STLC for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	86	X		Perform laboratory analysis for STLC for lead
B-6b-2.5	11/23/2016	1604246	2.5	---	---	110	X		Perform laboratory analysis for STLC for lead
B-6c-0.5	11/23/2016	1604246	0.5	---	---	280	X		Perform laboratory analysis for STLC for lead
B-6c-3.5	11/23/2016	1604246	3.5	---	---	85	X		Perform laboratory analysis for STLC for lead
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	190	X		Perform laboratory analysis for STLC for lead
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	120	3.3	---	Perform laboratory analysis for STLC for lead
H-2c-0.5	11/21/2016	1604222	0.5	---	---	230	X		Perform laboratory analysis for STLC for lead
B-13-0.5	10/9/2016	1603544	0.5	41	---	81	X		Perform laboratory analysis for STLC for lead
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	6.1	X	Perform laboratory analysis for TCLP for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	96	X		Perform laboratory analysis for STLC for lead
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	27	---	---	Perform laboratory analysis for STLC for lead
B-14-0.5	10/9/2016	1603544	0.5	19	---	99	X		Perform laboratory analysis for STLC for lead
B-14a-0.5	11/22/2016	1604231	0.5	12	---	62	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X		Perform laboratory analysis for STLC for lead
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X		Perform laboratory analysis for STLC for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X		Perform laboratory analysis for STLC for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X		Perform laboratory analysis for STLC for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X		Perform laboratory analysis for STLC for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X		Perform laboratory analysis for STLC for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X		Perform laboratory analysis for STLC for lead
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X		Perform laboratory analysis for STLC for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X		Perform laboratory analysis for STLC for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X		Perform laboratory analysis for STLC for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC			
				mg/kg	mg/L	mg/kg	mg/L			
Units:				TTL	STLC	TTL	STLC	TCLP		
Screening Level:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
AUD-6-0-25	11/21/2016	1604222	0.25	12	5.0	80	5.0			
AUD-6-0-5	10/16/2016	1603634	0.5	---	---	160	X		Perform laboratory analysis for STLC for lead	
AUD-6b-0-5	11/21/2016	1604222	0.5	5.2	---	670	26	X	Perform laboratory analysis for TCLP for lead	
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	160			Perform laboratory analysis for STLC for lead	
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	110	X		Perform laboratory analysis for STLC for lead	
AA1917-4-2-5	10/29/2016	1603827	2.5	--	---	82	X		Perform laboratory analysis for STLC for lead	
AA2684-2-0-5	10/29/2016	1603827	0.5	2.5	---	220	X		Perform laboratory analysis for STLC for lead	
AA2684-2-2-5	10/29/2016	1603827	2.5	18	---	19				
AA2684-3-2-5	10/29/2016	1603827	2.5	20	---	16				
AA2543-1-2-5	10/29/2016	1603827	2.5	33	---	25				
AA2543-2-0-5	10/29/2016	1603827	0.5	34	---	26				
AA2543-2-2-5	10/29/2016	1603827	2.5	23	---	17				
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	25	---	17				
AA2543-5-0-5	10/29/2016	1603827	0.5	24	---	17				
AA2543-5-2-5	10/29/2016	1603827	2.5	25	---	16				
AA2543-6-0-5	10/29/2016	1603827	0.5	34	---	26				
AA2543-6-2-5	10/29/2016	1603827	2.5	39	---	34				
AA2038-1-0-5	10/30/2016	1603843	0.5	19	---	35				
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	11				
AA2038-2-0-5	10/30/2016	1603843	0.5	23	---	7.9				
AA2038-2-2-5	10/30/2016	1603843	2.5	14	---	13				
AA2038-3-0-5	10/30/2016	1603843	0.5	31	---	15				
AA2038-3-2-5	10/30/2016	1603843	2.5	13	---	8.0				
AA2038-4-0-5	10/30/2016	1603843	0.5	27	---	10				
AA2038-4-2-5	10/30/2016	1603843	2.5	16	---	13				
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	20	---	9.8				
AA2249-1-0-5	10/30/2016	1603843	0.5	21	---	12				
AA2249-1-2-5	10/30/2016	1603843	2.5	24	---	14				
AA2249-2-0-5	10/30/2016	1603843	0.5	33	---	12				
AA2249-2-2-5	10/30/2016	1603843	2.5	22	---	19				
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	35	---	13				
FS-2-0-5	10/23/2016	1603435	0.5	31	---	14				
IM-1-2-5	10/30/2016	1603842	2.5	20	---	6.7				
IM-2-2-5	10/30/2016	1603842	2.5	20	---	35				
IM-2b-0-5	11/23/2016	1604246	0.5	4.6	---	160	X		Perform laboratory analysis for STLC for lead	
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	100	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5	10/30/2016	1603842	0.5	17	---	150	X		Perform laboratory analysis for STLC for lead	
IM-3-0-5 DUP	10/30/2016	1603842	0.5	25	---	74				
IM-3c-0-5	11/23/2016	1604246	0.5	22	---	61				
IM-3c-2-5	11/23/2016	1604246	2.5	66	X	---			Perform laboratory analysis for STLC for arsenic	

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LAUSD - Roosevelt High School
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Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B			Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLc mg/kg	STLC mg/L	TTLc mg/kg	STLC mg/L		TCLP mg/L
Screening Level: Units:										
IM-3c-3.5	11/23/2016	1604246	3.5	16	5.0	80	5.0			
IM-4-0.5	10/30/2016	1603842	0.5	16		66				
IM-4-2.5	10/30/2016	1603842	2.5	20		22				
IM-5-0.5	10/30/2016	1603842	0.5	29		54				
IM-5-2.5	10/30/2016	1603842	2.5	22		40				
IM-5d-0.5	11/23/2016	1604246	0.5	24						
IM-5d-3.5	11/23/2016	1604246	3.5	14						
IM-6-0.5	10/30/2016	1603842	0.5	12		36				
CRA-2-0.5	10/30/2016	1603842	0.5	3.6		110	X		Perform laboratory analysis for STLC for lead	
CRA-2-2.5	10/30/2016	1603842	2.5	3.5		140	X		Perform laboratory analysis for STLC for lead	
CRA-2b-0.5	11/22/2016	1604231	0.5			89	X		Perform laboratory analysis for STLC for lead	
CRA-2b-2.5	11/22/2016	1604231	2.5			720	X		Perform laboratory analysis for STLC for lead	
CRA-2c-3.5	11/22/2016	1604231	3.5			120	X		Perform laboratory analysis for STLC for lead	
CRA-3-0.5	10/30/2016	1603842	0.5	16		55				
CR1-2-0.5	10/30/2016	1603842	0.5	4.1		100	X		Perform laboratory analysis for STLC for lead	
CR1-2d-0.5	11/23/2016	1604246	0.5			120	X		Perform laboratory analysis for STLC for lead	
CR1-4-0.5	10/30/2016	1603842	0.5	4.9		130	X		Perform laboratory analysis for STLC for lead	
CR1-4b-0.5	11/23/2016	1604246	0.5			350	X		Perform laboratory analysis for STLC for lead	
CR1-5-0.25	11/23/2016	1604246	0.25	9.3		170	X		Perform laboratory analysis for STLC for lead	
CR1-5-0.5	10/30/2016	1603842	0.5	23		310	X		Perform laboratory analysis for STLC for lead	
CR1-5-2.5	10/30/2016	1603842	2.5	15		18				
CR1-5b-0.25	11/23/2016	1604246	0.25	13		190	X		Perform laboratory analysis for STLC for lead	
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13		180	X		Perform laboratory analysis for STLC for lead	
CR1-5b-0.5	11/23/2016	1604246	0.5	32		630	X		Perform laboratory analysis for STLC for lead	
CR1-5b-2.5	11/23/2016	1604246	2.5	19		140	X		Perform laboratory analysis for STLC for lead	
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6		91	X		Perform laboratory analysis for STLC for lead	
P15-0.5	10/30/2016	1603842	0.5	3.4		90	X		Perform laboratory analysis for STLC for lead	
P15-2.5	10/30/2016	1603842	2.5	2.9		140	X		Perform laboratory analysis for STLC for lead	
P15a-2.5	11/22/2016	1604231	2.5			150	X		Perform laboratory analysis for STLC for lead	
P15b-0.5	11/22/2016	1604231	0.5			190	X		Perform laboratory analysis for STLC for lead	
P15d-0.5	11/22/2016	1604231	0.5			140	X		Perform laboratory analysis for STLC for lead	
P15d-2.5	11/22/2016	1604231	2.5			440	X		Perform laboratory analysis for STLC for lead	
P15d-2.5 DUP	11/22/2016	1604231	2.5			110	X		Perform laboratory analysis for STLC for lead	
P16-0.5	10/30/2016	1603842	0.5	2.9		110	X		Perform laboratory analysis for STLC for lead	
P16c-0.5	11/22/2016	1604231	0.5	3.1		84	X		Perform laboratory analysis for STLC for lead	
Q15-0.5	10/30/2016	1603842	0.5	3.1		110	X		Perform laboratory analysis for STLC for lead	
Q15a-2.5	11/22/2016	1604231	2.5			4200	X		Perform laboratory analysis for STLC for lead	
Q15a-3.5	11/22/2016	1604231	3.5			190	X		Perform laboratory analysis for STLC for lead	
Q15a-3.5 DUP	11/22/2016	1604231	3.5			280	X		Perform laboratory analysis for STLC for lead	
R15-0.25	11/22/2016	1604231	0.25			95	X		Perform laboratory analysis for STLC for lead	

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Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTLc	STLC	TTLc	STLC	TCLP		
			Units:	mg/kg	mg/L	mg/kg	mg/L	mg/L		
			Screening Level:	12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District
ID = Identification
bgs = below ground surface
EPA = Environmental Protection Agency
--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 30, 2017

John Nordenstam
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9685 Research Drive
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Tel: (949) 753-0101
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ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604246
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on November 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light gray horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PE-3b-2.5	1604246-14	Soil	11/23/16 8:54	11/23/16 15:40
B-6b-2.5	1604246-23	Soil	11/23/16 10:38	11/23/16 15:40
IM-2b-0.5	1604246-30	Soil	11/23/16 11:59	11/23/16 15:40
CR1-2d-0.5	1604246-44	Soil	11/23/16 12:58	11/23/16 15:40
CR1-2d-2.5	1604246-45	Soil	11/23/16 13:00	11/23/16 15:40
CR1-5b-0.25	1604246-48	Soil	11/23/16 13:35	11/23/16 15:40
CR1-5b-0.5	1604246-49	Soil	11/23/16 13:37	11/23/16 15:40
CR1-5b-2.5	1604246-50	Soil	11/23/16 13:39	11/23/16 15:40
CR1-5-0.25	1604246-52	Soil	11/23/16 13:42	11/23/16 15:40
CR1-5d-0.25	1604246-57	Soil	11/23/16 13:50	11/23/16 15:40
CR1-4b-0.5	1604246-63	Soil	11/23/16 14:00	11/23/16 15:40
CR1-4b-2.5	1604246-64	Soil	11/23/16 14:05	11/23/16 15:40
IM-2b-0.5 DUP	1604246-69	Soil	11/23/16 11:59	11/23/16 15:40
CR1-5b-0.25 DUP	1604246-71	Soil	11/23/16 13:35	11/23/16 15:40

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID PE-3b-2.5

Lab ID: 1604246-14

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:19	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID B-6b-2.5

Lab ID: 1604246-23

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.15	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:22	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID IM-2b-0.5

Lab ID: 1604246-30

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.028	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:24	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-2d-0.5

Lab ID: 1604246-44

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.25	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:26	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-2d-2.5

Lab ID: 1604246-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.5	1.0	0.11	1	B7A0801	01/27/2017	01/27/17 14:08	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-5b-0.25

Lab ID: 1604246-48

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.048	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:29	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-5b-0.5

Lab ID: 1604246-49

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.071	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:31	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-5b-2.5

Lab ID: 1604246-50

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.044	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:33	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-5-0.25

Lab ID: 1604246-52

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.031	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:36	D1, J



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID CR1-5d-0.25

Lab ID: 1604246-57

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.024	0.25	0.014	5	B7A0628	01/21/2017	01/23/17 12:38	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-4b-0.5

Lab ID: 1604246-63

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.12	0.25	0.014	5	B7A0629	01/21/2017	01/23/17 12:51	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-4b-2.5

Lab ID: 1604246-64

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	33	1.0	0.11	1	B7A0801	01/27/2017	01/27/17 14:15	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID IM-2b-0.5 DUP

Lab ID: 1604246-69

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.038	0.25	0.014	5	B7A0629	01/21/2017	01/23/17 12:59	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID CR1-5b-0.25 DUP

Lab ID: 1604246-71

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.034	0.25	0.014	5	B7A0629	01/21/2017	01/23/17 13:01	D1, J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0801 - EPA 3050B_S									
Blank (B7A0801-BLK1)				Prepared: 1/27/2017 Analyzed: 1/27/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0801-BS1)				Prepared: 1/27/2017 Analyzed: 1/27/2017					
Arsenic	43.9922	1.0	50.0000		88.0	80 - 120			
Lead	45.6932	1.0	50.0000		91.4	80 - 120			
Duplicate (B7A0801-DUP1)				Source: 1604246-45		Prepared: 1/27/2017 Analyzed: 1/27/2017			
Arsenic	1.59907	1.0		1.12964	NR		34.4	20	
Lead	11.8307	1.0		6.53682	NR		57.6	20	R
Matrix Spike (B7A0801-MS1)				Source: 1604246-45		Prepared: 1/27/2017 Analyzed: 1/27/2017			
Arsenic	97.4728	1.0	125.000	1.12964	77.1	59 - 103			
Lead	108.163	1.0	125.000	6.53682	81.3	34 - 129			
Matrix Spike Dup (B7A0801-MSD1)				Source: 1604246-45		Prepared: 1/27/2017 Analyzed: 1/27/2017			
Arsenic	98.3830	1.0	125.000	1.12964	77.8	59 - 103	0.930	20	
Lead	108.692	1.0	125.000	6.53682	81.7	34 - 129	0.488	20	



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Reported : 01/30/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0628 - EPA 3010A_S

Blank (B7A0628-BLK1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead ND 0.050 NR

LCS (B7A0628-BS1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 0.952794 0.050 1.00000 95.3 80 - 120

Duplicate (B7A0628-DUP1)

Source: 1604231-01

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 0.020046 0.25 0.108735 NR 138 20 R, J

Matrix Spike (B7A0628-MS1)

Source: 1604231-01

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 2.30918 0.25 2.50000 0.108735 88.0 78 - 109

Matrix Spike Dup (B7A0628-MSD1)

Source: 1604231-01

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 2.40756 0.25 2.50000 0.108735 92.0 78 - 109 4.17 20



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0629 - EPA 3010A_S

Blank (B7A0629-BLK1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead ND 0.050 NR

LCS (B7A0629-BS1)

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 0.907456 0.050 1.00000 90.7 80 - 120

Duplicate (B7A0629-DUP1)

Source: 1604246-63

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 0.105580 0.25 0.115129 NR 8.65 20 J

Matrix Spike (B7A0629-MS1)

Source: 1604246-63

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 2.32413 0.25 2.50000 0.115129 88.4 78 - 109

Matrix Spike Dup (B7A0629-MSD1)

Source: 1604246-63

Prepared: 1/21/2017 Analyzed: 1/23/2017

Lead 2.33160 0.25 2.50000 0.115129 88.7 78 - 109 0.321 20



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, January 04, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC and TCLP
Attachments: Draft Table 2 - STLC and TCLP.xlsx

Importance: High

Rachelle – we need to conduct additional analyses for STLC and TCLP on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of:

- 65 samples to be analyzed for STLC for lead
- 6 samples to be analyzed for TCLP for lead
- 1 sample to be analyzed for STLC for arsenic

Attached is a spreadsheet showing the soil samples, the required analysis, and the corresponding laboratory report number for each of the samples. Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
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Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead In Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods					Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B			
				TTLC mg/kg	STLC mg/L	TTLC mg/kg	STLC mg/L	TCLP mg/L	
Screening Level:				Units:					
PE-3-2.5	10/15/2016	1603632	2.5	1.8	---	82	X	---	Perform laboratory analysis for STLC for lead
PE-3b-2.5	11/23/2016	1604246	2.5	---	---	86	X	---	Perform laboratory analysis for STLC for lead
B-6-2.5	10/23/2016	1603734	2.5	1.9	---	110	X	---	Perform laboratory analysis for STLC for lead
B-6b-2.5	11/23/2016	1604246	2.5	---	---	280	X	---	Perform laboratory analysis for STLC for lead
B-6c-0.5	11/23/2016	1604246	0.5	---	---	85	X	---	Perform laboratory analysis for STLC for lead
B-6c-3.5	11/23/2016	1604246	3.5	---	---	190	X	---	Perform laboratory analysis for STLC for lead
C-12-0.5	10/15/2016	1603632	0.5	ND<2.0	---	120	3.3	---	
H-2-2.5	10/15/2016	1603632	2.5	5.6	---	230	X	---	Perform laboratory analysis for STLC for lead
H-2c-0.5	11/21/2016	1604222	0.5	---	---	81	X	---	Perform laboratory analysis for STLC for lead
B-13-0.5	10/9/2016	1603544	0.5	41	---	96	6.1	X	Perform laboratory analysis for TCLP for lead
B-13a-0.5	11/22/2016	1604231	0.5	17	---	96	X	---	Perform laboratory analysis for STLC for lead
B-13b-0.5	11/22/2016	1604231	0.5	14	---	27	---	---	Perform laboratory analysis for STLC for lead
B-13c-0.5	11/22/2016	1604231	0.5	7.8	---	99	X	---	
B-14-0.5	10/9/2016	1603544	0.5	19	---	62	---	---	Perform laboratory analysis for STLC for lead
B-14a-0.5	11/22/2016	1604231	0.5	12	---	---	---	---	
B-14a-0.5 DUP	11/22/2016	1604231	0.5	15	---	---	---	---	
B-14b-0.5	11/22/2016	1604231	0.5	19	---	---	---	---	
B-15-0.5	10/9/2016	1603545	0.5	16	---	69	---	---	
B-15a-0.5	11/22/2016	1604231	0.5	17	---	---	---	---	
B-16-0.5	10/9/2016	1603545	0.5	13	---	81	3.7	---	
B-16-0.5 DUP	10/9/2016	1603545	0.5	15	---	70	---	---	
B-16a-0.5	11/22/2016	1604231	0.5	15	---	49	---	---	
B-16a-0.5 DUP	11/22/2016	1604231	0.5	27	---	72	---	---	
B-17-2.5	10/9/2016	1603545	2.5	12	---	53	---	---	
C-13-0.5	10/9/2016	1603544	0.5	2.8	---	150	11	X	Perform laboratory analysis for TCLP for lead
C-13c-0.5	11/22/2016	1604231	0.5	---	---	110	X	---	Perform laboratory analysis for STLC for lead
C-17-0.5	10/9/2016	1603544	0.5	3.0	---	85	4.7	---	
C-17b-0.5	11/22/2016	1604231	0.5	---	---	99	X	---	Perform laboratory analysis for STLC for lead
MB-6-0.5 DUP	10/16/2016	1603634	0.5	3.5	---	89	2.5	---	
AUD-3-0.5	10/16/2016	1603634	0.5	3.5	---	110	6.4	X	Perform laboratory analysis for TCLP for lead
AUD-3a-0.5	11/21/2016	1604222	0.5	---	---	4300	X	---	Perform laboratory analysis for STLC for lead
AUD-3b-0.5	11/21/2016	1604222	0.5	---	---	140	X	---	Perform laboratory analysis for STLC for lead
AUD-3c-0.25	11/21/2016	1604222	0.25	---	---	500	X	---	Perform laboratory analysis for STLC for lead
AUD-3c-0.5	11/21/2016	1604222	0.5	---	---	700	X	---	Perform laboratory analysis for STLC for lead
AUD-4-0.5	10/16/2016	1603634	0.5	8.8	---	390	29	X	Perform laboratory analysis for TCLP for lead
AUD-4c-0.5	11/21/2016	1604222	0.5	---	---	460	X	---	Perform laboratory analysis for STLC for lead
AUD-5-0.25	11/21/2016	1604222	0.25	---	---	130	X	---	Perform laboratory analysis for STLC for lead
AUD-5-0.5	10/16/2016	1603634	0.5	ND<5.0	---	620	24	X	Perform laboratory analysis for TCLP for lead
AUD-5b-0.5	11/21/2016	1604222	0.5	---	---	240	X	---	Perform laboratory analysis for STLC for lead
AUD-5c-0.25	11/21/2016	1604222	0.25	---	---	110	X	---	Perform laboratory analysis for STLC for lead



Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC	TTL	STLC	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:				12	5.0	80	5.0			
AUD-6-0-25	11/21/2016	1604222	0.25	---	---	160	X			Perform laboratory analysis for STLC for lead
AUD-6-0-5	10/16/2016	1603634	0.5	5.2	---	670	26	X		Perform laboratory analysis for TCLP for lead
AUD-6b-0-5	11/21/2016	1604222	0.5	--	---	160				Perform laboratory analysis for STLC for lead
AUD-6c-0-25	11/21/2016	1604222	0.25	--	---	110	X			Perform laboratory analysis for STLC for lead
AUD-6c-0-25 DUP	11/21/2016	1604222	0.25	--	---	82	X			Perform laboratory analysis for STLC for lead
AA1917-4-2-5	10/29/2016	1603827	2.5	2.5	---	220	X			Perform laboratory analysis for STLC for lead
AA2684-2-0-5	10/29/2016	1603827	0.5	18	---	19				Perform laboratory analysis for STLC for lead
AA2684-2-2-5	10/29/2016	1603827	2.5	20	---	16				
AA2684-3-2-5	10/29/2016	1603827	2.5	33	---	25				
AA2543-1-2-5	10/29/2016	1603827	2.5	34	---	26				
AA2543-2-0-5	10/29/2016	1603827	0.5	23	---	17				
AA2543-2-2-5	10/29/2016	1603827	2.5	25	---	17				
AA2543-2-2-5 DUP	10/29/2016	1603827	2.5	24	---	17				
AA2543-5-0-5	10/29/2016	1603827	0.5	25	---	16				
AA2543-5-2-5	10/29/2016	1603827	2.5	34	---	26				
AA2543-6-0-5	10/29/2016	1603827	0.5	39	---	34				
AA2543-6-2-5	10/29/2016	1603827	2.5	19	---	35				
AA2038-1-0-5	10/30/2016	1603843	0.5	23	---	11				
AA2038-1-2-5	10/30/2016	1603843	2.5	23	---	7.9				
AA2038-2-0-5	10/30/2016	1603843	0.5	14	---	13				
AA2038-2-2-5	10/30/2016	1603843	2.5	31	---	15				
AA2038-3-0-5	10/30/2016	1603843	0.5	13	---	8.0				
AA2038-3-2-5	10/30/2016	1603843	2.5	27	---	10				
AA2038-4-0-5	10/30/2016	1603843	0.5	16	---	13				
AA2038-4-2-5	10/30/2016	1603843	2.5	20	---	9.8				
AA2038-4-2-5 DUP	10/30/2016	1603843	2.5	21	---	12				
AA2249-1-0-5	10/30/2016	1603843	0.5	24	---	14				
AA2249-1-2-5	10/30/2016	1603843	2.5	33	---	12				
AA2249-2-0-5	10/30/2016	1603843	0.5	22	---	19				
AA2249-2-2-5	10/30/2016	1603843	2.5	35	---	13				
AA2249-2-2-5 DUP	10/30/2016	1603843	2.5	31	---	14				
FS-2-0-5	10/23/2016	1603435	0.5	20	---	6.7				
IM-1-2-5	10/30/2016	1603842	2.5	20	---	35				
IM-2-2-5	10/30/2016	1603842	2.5	4.6	---	160	X			Perform laboratory analysis for STLC for lead
IM-2b-0-5	11/23/2016	1604246	0.5	17	---	100	X			Perform laboratory analysis for STLC for lead
IM-2b-0-5 DUP	11/23/2016	1604246	0.5	17	---	150	X			Perform laboratory analysis for STLC for lead
IM-3-0-5	10/30/2016	1603842	0.5	25	---	74				
IM-3-0-5 DUP	10/30/2016	1603842	0.5	22	---	61				
IM-3c-0-5	11/23/2016	1604246	0.5	66	X	---				Perform laboratory analysis for STLC for arsenic
IM-3c-2-5	11/23/2016	1604246	2.5	22	---	---				

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TtLC	STLC	TtLC	STLC	TtLC	TCLP	
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	
Screening Level:										
IM-3c-3.5	11/23/2016	1604246	3.5	12	5.0	80	5.0			
IM-4-0.5	10/30/2016	1603842	0.5	16	---	---	---	---	---	
IM-4-2.5	10/30/2016	1603842	2.5	16	---	66	---	---	---	
IM-5-0.5	10/30/2016	1603842	0.5	20	---	22	---	---	---	
IM-5-2.5	10/30/2016	1603842	2.5	29	---	54	---	---	---	
IM-5d-0.5	11/23/2016	1603842	0.5	22	---	40	---	---	---	
IM-5d-3.5	11/23/2016	1604246	3.5	14	---	---	---	---	---	
IM-6-0.5	10/30/2016	1603842	0.5	12	---	36	---	---	---	
CRA-2-0.5	10/30/2016	1603842	0.5	3.6	---	110	X	X		Perform laboratory analysis for STLC for lead
CRA-2-2.5	10/30/2016	1603842	2.5	3.5	---	140	X	X		Perform laboratory analysis for STLC for lead
CRA-2b-0.5	11/22/2016	1604231	0.5	---	---	89	X	X		Perform laboratory analysis for STLC for lead
CRA-2b-2.5	11/22/2016	1604231	2.5	---	---	720	X	X		Perform laboratory analysis for STLC for lead
CRA-2c-3.5	11/22/2016	1604231	3.5	---	---	120	X	X		Perform laboratory analysis for STLC for lead
CRA-3-0.5	10/30/2016	1603842	0.5	16	---	55	---	---		
CR1-2-0.5	10/30/2016	1603842	0.5	4.1	---	100	X	X		Perform laboratory analysis for STLC for lead
CR1-2d-0.5	11/23/2016	1604246	0.5	---	---	120	X	X		Perform laboratory analysis for STLC for lead
CR1-4-0.5	10/30/2016	1603842	0.5	4.9	---	130	X	X		Perform laboratory analysis for STLC for lead
CR1-4b-0.5	11/23/2016	1604246	0.5	---	---	350	X	X		Perform laboratory analysis for STLC for lead
CR1-5-0.25	11/23/2016	1604246	0.25	9.3	---	170	X	X		Perform laboratory analysis for STLC for lead
CR1-5-0.5	10/30/2016	1603842	0.5	23	---	310	X	X		Perform laboratory analysis for STLC for lead
CR1-5-2.5	10/30/2016	1603842	2.5	15	---	18	---	---		
CR1-5b-0.25	11/23/2016	1604246	0.25	13	---	190	X	X		Perform laboratory analysis for STLC for lead
CR1-5b-0.25 DUP	11/23/2016	1604246	0.25	13	---	180	X	X		Perform laboratory analysis for STLC for lead
CR1-5b-0.5	11/23/2016	1604246	0.5	32	---	630	X	X		Perform laboratory analysis for STLC for lead
CR1-5b-2.5	11/23/2016	1604246	2.5	19	---	140	X	X		Perform laboratory analysis for STLC for lead
CR1-5d-0.25	11/23/2016	1604246	0.25	8.6	---	91	X	X		Perform laboratory analysis for STLC for lead
P15-0.5	10/30/2016	1603842	0.5	3.4	---	90	X	X		Perform laboratory analysis for STLC for lead
P15-2.5	10/30/2016	1603842	2.5	2.9	---	140	X	X		Perform laboratory analysis for STLC for lead
P15a-2.5	11/22/2016	1604231	2.5	---	---	150	X	X		Perform laboratory analysis for STLC for lead
P15b-0.5	11/22/2016	1604231	0.5	---	---	190	X	X		Perform laboratory analysis for STLC for lead
P15d-0.5	11/22/2016	1604231	0.5	---	---	140	X	X		Perform laboratory analysis for STLC for lead
P15d-2.5	11/22/2016	1604231	2.5	---	---	440	X	X		Perform laboratory analysis for STLC for lead
P15d-2.5 DUP	11/22/2016	1604231	2.5	---	---	110	X	X		Perform laboratory analysis for STLC for lead
P16-0.5	10/30/2016	1603842	0.5	2.9	---	110	X	X		Perform laboratory analysis for STLC for lead
P16c-0.5	11/22/2016	1604231	0.5	3.1	---	84	X	X		Perform laboratory analysis for STLC for lead
Q15-0.5	10/30/2016	1603842	0.5	3.1	---	110	X	X		Perform laboratory analysis for STLC for lead
Q15a-2.5	11/22/2016	1604231	2.5	---	---	4200	X	X		Perform laboratory analysis for STLC for lead
Q15a-3.5	11/22/2016	1604231	3.5	---	---	190	X	X		Perform laboratory analysis for STLC for lead
Q15a-3.5 DUP	11/22/2016	1604231	3.5	---	---	280	X	X		Perform laboratory analysis for STLC for lead
R15-0.25	11/22/2016	1604231	0.25	---	---	95	X	X		Perform laboratory analysis for STLC for lead

Table 2
DRAFT General Site Screening Results - Samples with Arsenic and Lead in Excess of Screening Levels
Preliminary Environmental Assessment Equivalent Report
LAUSD - Roosevelt High School
456 South Mathews Street
Los Angeles, California

Sample Location	Sample Date	Laboratory Report Number	Depth (feet bgs)	Analyses and Analytical Methods						Comments
				Arsenic (As) EPA 6010B		Lead (Pb) EPA 6010B				
				TTL	STLC	TTL	STLC	TCLP		
Units:				mg/kg	mg/L	mg/kg	mg/L	mg/L		
Screening Level:				12	5.0	80	5.0			
R15-0.5	10/30/2016	1603842	0.5	3.8	---	300	X		Perform laboratory analysis for STLC for lead	
R15d-0.5	11/22/2016	1604231	0.5	---	---	100	X		Perform laboratory analysis for STLC for lead	
V-16-0.5	10/22/2016	1603729	0.5	2.9	---	390	X		Perform laboratory analysis for STLC for lead	
W-14-2.5	10/22/2016	1603729	2.5	3.1	---	250	X		Perform laboratory analysis for STLC for lead	
W-14a-0.5	11/21/2016	1604222	0.5	---	---	6300	X		Perform laboratory analysis for STLC for lead	
W-14c-2.5	11/21/2016	1604222	2.5	---	---	99	X		Perform laboratory analysis for STLC for lead	
X-12-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-0.5	10/22/2016	1603729	0.5	13	---	13	---	---		
X-14-2.5	10/22/2016	1603729	2.5	3.0	---	80	X		Perform laboratory analysis for STLC for lead	
X-17-0.5	10/22/2016	1603729	0.5	14	---	9.0	---	---		
X-17-0.5 DUP	10/22/2016	1603729	0.5	15	---	8.7	---	---		
X-17b-0.5	11/21/2016	1604222	0.5	12	---	---	---	---		
X-17b-0.5 DUP	11/21/2016	1604222	0.5	11	---	---	---	---		
Y-17-0.5	10/22/2016	1603729	0.5	16	---	12	---	---		
Y-17c-0.5	11/21/2016	1604222	0.5	14	---	---	---	---		

Notes:

Table summarizes arsenic and lead laboratory analytical reports for soil samples.

Samples with detectable concentrations presented in **bold font**.

Arsenic screening level based on California background level.

TTL screening level based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3, Table 1 (DTSC, 2015).

OCPs screening levels are based on Department of Toxic Substances Control (DTSC) Office of Human Ecological Risk (HERO) Human Health Risk Assessment (HRRRA) Note Number 3-Table 1 Cancer Value (or Non-Cancer value, lowest value) (DTSC, 2015) or United States Environmental Protection Agency (US EPA) Regional Screening Level (carcinogenic or non-carcinogenic, lowest value) (EPA, 2015).

LAUSD = Los Angeles Unified School District

ID = Identification

bgs = below ground surface

EPA = Environmental Protection Agency

--- = not analyzed

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

μg/L = micrograms per liter

DUP = Duplicate of preceding sample

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit.

Result is an estimated concentration.

(1) = 3.8J Aroclor 1260

(2) = 11J Aroclor 1260



January 05, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604849
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on December 21, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IM-2a @ 0.5	1604849-01	Soil	12/21/16 7:50	12/21/16 13:30
IM-2a @ 2.5	1604849-02	Soil	12/21/16 7:52	12/21/16 13:30
IM-2a @ 3.5	1604849-03	Soil	12/21/16 7:54	12/21/16 13:30
IM-1a @ 0.5	1604849-04	Soil	12/21/16 8:10	12/21/16 13:30
IM-1a @ 2.5	1604849-05	Soil	12/21/16 8:12	12/21/16 13:30
IM-1a @ 3.5	1604849-06	Soil	12/21/16 8:15	12/21/16 13:30
AA2684-7 @ 0.5	1604849-07	Soil	12/21/16 8:38	12/21/16 13:30
AA2684-7 @ 2.5	1604849-08	Soil	12/21/16 8:41	12/21/16 13:30
AA2684-7 @ 3.5	1604849-09	Soil	12/21/16 8:43	12/21/16 13:30
AA2684-6 @ 0.5	1604849-10	Soil	12/21/16 9:00	12/21/16 13:30
AA2684-6 @ 2.5	1604849-11	Soil	12/21/16 9:05	12/21/16 13:30
AA2684-6 @ 3.5	1604849-12	Soil	12/21/16 9:10	12/21/16 13:30
AA2684-5 @ 0.5	1604849-13	Soil	12/21/16 9:15	12/21/16 13:30
AA2684-5 @ 2.5	1604849-14	Soil	12/21/16 9:20	12/21/16 13:30
AA2684-5 @ 3.5	1604849-15	Soil	12/21/16 9:22	12/21/16 13:30
AA2543-8 @ 0.5	1604849-16	Soil	12/21/16 9:25	12/21/16 13:30
AA2543-8 @ 2.5	1604849-17	Soil	12/21/16 9:30	12/21/16 13:30
AA2543-8 @ 3.5	1604849-18	Soil	12/21/16 9:32	12/21/16 13:30
AA2543-7 @ 0.5	1604849-19	Soil	12/21/16 9:35	12/21/16 13:30
AA2543-7 @ 2.5	1604849-20	Soil	12/21/16 9:40	12/21/16 13:30
AA2543-7 @ 3.5	1604849-21	Soil	12/21/16 9:42	12/21/16 13:30
AA2038-9 @ 0.5	1604849-22	Soil	12/21/16 9:53	12/21/16 13:30
AA2038-9 @ 2.5	1604849-23	Soil	12/21/16 9:55	12/21/16 13:30
AA2038-9 @ 3.5	1604849-24	Soil	12/21/16 9:57	12/21/16 13:30
AA2038-8 @ 0.5	1604849-25	Soil	12/21/16 10:00	12/21/16 13:30
AA2038-8 @ 2.5	1604849-26	Soil	12/21/16 10:02	12/21/16 13:30
AA2038-8 @ 3.5	1604849-27	Soil	12/21/16 10:04	12/21/16 13:30
AA2038-7 @ 0.5	1604849-28	Soil	12/21/16 10:08	12/21/16 13:30
AA2038-7 @ 2.5	1604849-29	Soil	12/21/16 10:10	12/21/16 13:30
AA2038-7 @ 3.5	1604849-30	Soil	12/21/16 10:12	12/21/16 13:30
AA2038-6 @ 0.5	1604849-31	Soil	12/21/16 10:16	12/21/16 13:30
AA2038-6 @ 2.5	1604849-32	Soil	12/21/16 10:18	12/21/16 13:30
AA2038-6 @ 3.5	1604849-33	Soil	12/21/16 10:20	12/21/16 13:30
AA2038-5 @ 0.5	1604849-34	Soil	12/21/16 11:00	12/21/16 13:30
AA2038-5 @ 2.5	1604849-35	Soil	12/21/16 11:05	12/21/16 13:30
AA2038-5 @ 3.5	1604849-36	Soil	12/21/16 11:07	12/21/16 13:30
AA2249-6 @ 0.5	1604849-37	Soil	12/21/16 11:23	12/21/16 13:30



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AA2249-6 @ 2.5	1604849-38	Soil	12/21/16 11:28	12/21/16 13:30
AA2249-6 @ 3.5	1604849-39	Soil	12/21/16 11:30	12/21/16 13:30
AA2249-5 @ 0.5	1604849-40	Soil	12/21/16 11:40	12/21/16 13:30
AA2249-5 @ 2.5	1604849-41	Soil	12/21/16 11:42	12/21/16 13:30
AA2249-5 @ 3.5	1604849-42	Soil	12/21/16 11:44	12/21/16 13:30
EB-23	1604849-43	Water	12/21/16 12:05	12/21/16 13:30
IDW SOIL	1604849-44	Soil	12/21/16 12:20	12/21/16 13:30
Composite IDW SOIL	1604849-45	Soil	12/21/16 12:20	12/21/16 13:30
AA2684-6 @ 0.5 - DUP	1604849-46	Soil	12/21/16 9:00	12/21/16 13:30
AA2543-7 @ 2.5 - DUP	1604849-47	Soil	12/21/16 9:40	12/21/16 13:30
AA2038-7 @ 3.5 - DUP	1604849-48	Soil	12/21/16 10:12	12/21/16 13:30
AA2249-5 @ 0.5 - DUP	1604849-49	Soil	12/21/16 11:40	12/21/16 13:30

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID IM-2a @ 0.5

Lab ID: 1604849-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.5	1.0	0.11	1	B6L1069	12/30/2016	12/30/16 15:02	



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Reported : 01/05/2017

Client Sample ID IM-2a @ 2.5

Lab ID: 1604849-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.3	1.0	0.11	1	B6L1069	12/30/2016	12/30/16 15:06	



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Project Number : ROOSEVELT HS, 265642

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Reported : 01/05/2017

Client Sample ID IM-2a @ 3.5

Lab ID: 1604849-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.2	1.0	0.11	1	B6L1069	12/30/2016	12/30/16 15:07	



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Project Number : ROOSEVELT HS, 265642

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Reported : 01/05/2017

Client Sample ID IM-1a @ 0.5

Lab ID: 1604849-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:08	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID IM-1a @ 2.5

Lab ID: 1604849-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:09	



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Project Number : ROOSEVELT HS, 265642

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Reported : 01/05/2017

Client Sample ID IM-1a @ 3.5

Lab ID: 1604849-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:13	



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Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2684-7 @ 0.5

Lab ID: 1604849-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:14	



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Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2684-7 @ 2.5

Lab ID: 1604849-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:15	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2684-7 @ 3.5

Lab ID: 1604849-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:16	



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2684-6 @ 0.5

Lab ID: 1604849-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	27	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:17	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2684-6 @ 2.5

Lab ID: 1604849-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	28	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:19	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2684-6 @ 3.5
Lab ID: 1604849-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	23	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2684-5 @ 0.5

Lab ID: 1604849-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:21	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2684-5 @ 2.5

Lab ID: 1604849-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:22	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2684-5 @ 3.5

Lab ID: 1604849-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:23	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2543-8 @ 0.5

Lab ID: 1604849-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:27	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2543-8 @ 2.5

Lab ID: 1604849-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 16:14	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2543-8 @ 3.5

Lab ID: 1604849-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:29	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2543-7 @ 0.5

Lab ID: 1604849-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	0.70	1	B6L1069	12/30/2016	12/30/16 15:30	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2543-7 @ 2.5

Lab ID: 1604849-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:34	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2543-7 @ 3.5

Lab ID: 1604849-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:40	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2038-9 @ 0.5
Lab ID: 1604849-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.4	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:41	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-9 @ 2.5

Lab ID: 1604849-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:42	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-9 @ 3.5

Lab ID: 1604849-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:44	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-8 @ 0.5

Lab ID: 1604849-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.5	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:45	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-8 @ 2.5

Lab ID: 1604849-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:46	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-8 @ 3.5

Lab ID: 1604849-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.0	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:47	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-7 @ 0.5

Lab ID: 1604849-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:48	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-7 @ 2.5

Lab ID: 1604849-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:49	



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Project Number : ROOSEVELT HS, 265642

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Reported : 01/05/2017

Client Sample ID AA2038-7 @ 3.5

Lab ID: 1604849-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.8	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:50	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-6 @ 0.5

Lab ID: 1604849-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.1	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:54	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2038-6 @ 2.5

Lab ID: 1604849-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:55	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-6 @ 3.5

Lab ID: 1604849-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:56	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2038-5 @ 0.5

Lab ID: 1604849-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:57	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2038-5 @ 2.5

Lab ID: 1604849-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 15:58	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2038-5 @ 3.5

Lab ID: 1604849-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 16:00	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2249-6 @ 0.5
Lab ID: 1604849-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 16:01	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2249-6 @ 2.5

Lab ID: 1604849-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B6L1070	12/30/2016	12/30/16 16:02	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID AA2249-6 @ 3.5

Lab ID: 1604849-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B6L1072	12/30/2016	12/30/16 16:20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2249-5 @ 0.5

Lab ID: 1604849-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.1	1.0	0.70	1	B6L1072	12/30/2016	12/30/16 16:24	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2249-5 @ 2.5

Lab ID: 1604849-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.1	1.0	0.70	1	B6L1072	12/30/2016	12/30/16 16:25	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID AA2249-5 @ 3.5

Lab ID: 1604849-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B6L1072	12/30/2016	12/30/16 16:26	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID EB-23

Lab ID: 1604849-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7A0050	01/04/2017	01/04/17 14:21	
Lead	0.0031	0.0050	0.0028	1	B7A0050	01/04/2017	01/04/17 14:21	J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID IDW SOIL

Lab ID: 1604849-44

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.95	0.19	1	B6L0914	12/27/2016	12/27/16 15:34	
Surrogate: 4-Bromofluorobenzene	90.3 %	36 - 125			B6L0914	12/27/2016	12/27/16 15:34	

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	0.63	1	B6L0911	12/27/2016	12/27/16 14:30	
1,1,1-Trichloroethane	ND	5.0	0.63	1	B6L0911	12/27/2016	12/27/16 14:30	
1,1,2,2-Tetrachloroethane	ND	5.0	0.92	1	B6L0911	12/27/2016	12/27/16 14:30	
1,1,2-Trichloroethane	ND	5.0	1.4	1	B6L0911	12/27/2016	12/27/16 14:30	
1,1-Dichloroethane	ND	5.0	1.5	1	B6L0911	12/27/2016	12/27/16 14:30	
1,1-Dichloroethene	ND	5.0	0.69	1	B6L0911	12/27/2016	12/27/16 14:30	
1,1-Dichloropropene	ND	5.0	2.4	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2,3-Trichloropropane	ND	5.0	1.2	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2,3-Trichlorobenzene	ND	5.0	1.1	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2,4-Trichlorobenzene	ND	5.0	0.96	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2,4-Trimethylbenzene	ND	5.0	0.53	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2-Dibromo-3-chloropropane	ND	10	1.1	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2-Dibromoethane	ND	5.0	0.80	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2-Dichlorobenzene	ND	5.0	0.51	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2-Dichloroethane	ND	5.0	0.53	1	B6L0911	12/27/2016	12/27/16 14:30	
1,2-Dichloropropane	ND	5.0	0.76	1	B6L0911	12/27/2016	12/27/16 14:30	
1,3,5-Trimethylbenzene	ND	5.0	0.58	1	B6L0911	12/27/2016	12/27/16 14:30	
1,3-Dichlorobenzene	ND	5.0	0.63	1	B6L0911	12/27/2016	12/27/16 14:30	
1,3-Dichloropropane	ND	5.0	0.59	1	B6L0911	12/27/2016	12/27/16 14:30	
1,4-Dichlorobenzene	ND	5.0	0.73	1	B6L0911	12/27/2016	12/27/16 14:30	
2,2-Dichloropropane	ND	5.0	0.68	1	B6L0911	12/27/2016	12/27/16 14:30	
2-Chlorotoluene	ND	5.0	0.68	1	B6L0911	12/27/2016	12/27/16 14:30	
4-Chlorotoluene	ND	5.0	0.62	1	B6L0911	12/27/2016	12/27/16 14:30	
4-Isopropyltoluene	ND	5.0	0.63	1	B6L0911	12/27/2016	12/27/16 14:30	
Benzene	ND	5.0	0.59	1	B6L0911	12/27/2016	12/27/16 14:30	
Bromobenzene	ND	5.0	1.9	1	B6L0911	12/27/2016	12/27/16 14:30	
Bromochloromethane	ND	5.0	3.1	1	B6L0911	12/27/2016	12/27/16 14:30	
Bromodichloromethane	ND	5.0	1.0	1	B6L0911	12/27/2016	12/27/16 14:30	
Bromoform	ND	5.0	0.70	1	B6L0911	12/27/2016	12/27/16 14:30	
Bromomethane	ND	5.0	4.2	1	B6L0911	12/27/2016	12/27/16 14:30	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Client Sample ID IDW SOIL

Lab ID: 1604849-44

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon disulfide	ND	5.0	1.2	1	B6L0911	12/27/2016	12/27/16 14:30	
Carbon tetrachloride	ND	5.0	1.1	1	B6L0911	12/27/2016	12/27/16 14:30	
Chlorobenzene	ND	5.0	0.64	1	B6L0911	12/27/2016	12/27/16 14:30	
Chloroethane	ND	5.0	1.9	1	B6L0911	12/27/2016	12/27/16 14:30	
Chloroform	ND	5.0	1.4	1	B6L0911	12/27/2016	12/27/16 14:30	
Chloromethane	ND	5.0	1.9	1	B6L0911	12/27/2016	12/27/16 14:30	
cis-1,2-Dichloroethene	ND	5.0	0.87	1	B6L0911	12/27/2016	12/27/16 14:30	
cis-1,3-Dichloropropene	ND	5.0	0.79	1	B6L0911	12/27/2016	12/27/16 14:30	
Di-isopropyl ether	ND	5.0	0.51	1	B6L0911	12/27/2016	12/27/16 14:30	
Dibromochloromethane	ND	5.0	1.0	1	B6L0911	12/27/2016	12/27/16 14:30	
Dibromomethane	ND	5.0	0.99	1	B6L0911	12/27/2016	12/27/16 14:30	
Dichlorodifluoromethane	ND	5.0	2.2	1	B6L0911	12/27/2016	12/27/16 14:30	
Ethyl Acetate	ND	50	9.7	1	B6L0911	12/27/2016	12/27/16 14:30	
Ethyl Ether	ND	50	7.3	1	B6L0911	12/27/2016	12/27/16 14:30	
Ethyl tert-butyl ether	ND	5.0	1.4	1	B6L0911	12/27/2016	12/27/16 14:30	
Ethylbenzene	ND	5.0	0.65	1	B6L0911	12/27/2016	12/27/16 14:30	
Freon-113	ND	5.0	1.0	1	B6L0911	12/27/2016	12/27/16 14:30	
Hexachlorobutadiene	ND	5.0	0.78	1	B6L0911	12/27/2016	12/27/16 14:30	
Isopropylbenzene	ND	5.0	0.59	1	B6L0911	12/27/2016	12/27/16 14:30	
m,p-Xylene	ND	10	1.2	1	B6L0911	12/27/2016	12/27/16 14:30	
Methylene chloride	ND	5.0	1.4	1	B6L0911	12/27/2016	12/27/16 14:30	
MTBE	ND	5.0	0.50	1	B6L0911	12/27/2016	12/27/16 14:30	
n-Butylbenzene	ND	5.0	0.75	1	B6L0911	12/27/2016	12/27/16 14:30	
n-Propylbenzene	ND	5.0	0.55	1	B6L0911	12/27/2016	12/27/16 14:30	
Naphthalene	ND	5.0	1.2	1	B6L0911	12/27/2016	12/27/16 14:30	
o-Xylene	ND	5.0	0.86	1	B6L0911	12/27/2016	12/27/16 14:30	
sec-Butylbenzene	ND	5.0	0.79	1	B6L0911	12/27/2016	12/27/16 14:30	
Styrene	ND	5.0	0.82	1	B6L0911	12/27/2016	12/27/16 14:30	
tert-Amyl methyl ether	ND	5.0	1.5	1	B6L0911	12/27/2016	12/27/16 14:30	
tert-Butanol	ND	100	5.9	1	B6L0911	12/27/2016	12/27/16 14:30	
tert-Butylbenzene	ND	5.0	0.57	1	B6L0911	12/27/2016	12/27/16 14:30	
Tetrachloroethene	ND	5.0	0.65	1	B6L0911	12/27/2016	12/27/16 14:30	
Toluene	ND	5.0	0.80	1	B6L0911	12/27/2016	12/27/16 14:30	
trans-1,2-Dichloroethene	ND	5.0	1.5	1	B6L0911	12/27/2016	12/27/16 14:30	
trans-1,3-Dichloropropene	ND	5.0	0.63	1	B6L0911	12/27/2016	12/27/16 14:30	
Trichloroethene	ND	5.0	1.1	1	B6L0911	12/27/2016	12/27/16 14:30	
Trichlorofluoromethane	ND	5.0	0.89	1	B6L0911	12/27/2016	12/27/16 14:30	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID IDW SOIL

Lab ID: 1604849-44

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl acetate	ND	50	5.7	1	B6L0911	12/27/2016	12/27/16 14:30	
Vinyl chloride	ND	5.0	2.0	1	B6L0911	12/27/2016	12/27/16 14:30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>98.3 %</i>		<i>12 - 186</i>		B6L0911	12/27/2016	<i>12/27/16 14:30</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>109 %</i>		<i>23 - 162</i>		B6L0911	12/27/2016	<i>12/27/16 14:30</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>105 %</i>		<i>23 - 179</i>		B6L0911	12/27/2016	<i>12/27/16 14:30</i>	
<i>Surrogate: Toluene-d8</i>	<i>111 %</i>		<i>26 - 164</i>		B6L0911	12/27/2016	<i>12/27/16 14:30</i>	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID Composite IDW SOIL Lab ID: 1604849-45

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B7A0004	01/03/2017	01/03/17 15:54	
Arsenic	3.5	1.0	0.70	1	B7A0004	01/03/2017	01/03/17 15:54	
Barium	97	1.0	0.10	1	B7A0004	01/03/2017	01/03/17 15:54	
Beryllium	0.31	1.0	0.04	1	B7A0004	01/03/2017	01/03/17 15:54	J
Cadmium	ND	1.0	0.09	1	B7A0004	01/03/2017	01/03/17 15:54	
Chromium	12	1.0	0.12	1	B7A0004	01/03/2017	01/03/17 15:54	
Cobalt	5.5	1.0	0.10	1	B7A0004	01/03/2017	01/03/17 15:54	
Copper	13	2.0	0.11	1	B7A0004	01/03/2017	01/03/17 15:54	
Lead	22	1.0	0.11	1	B7A0004	01/03/2017	01/03/17 15:54	
Molybdenum	ND	1.0	0.13	1	B7A0004	01/03/2017	01/03/17 15:54	
Nickel	9.1	1.0	0.10	1	B7A0004	01/03/2017	01/03/17 15:54	
Selenium	ND	1.0	0.88	1	B7A0004	01/03/2017	01/03/17 15:54	
Silver	ND	1.0	0.04	1	B7A0004	01/03/2017	01/03/17 15:54	
Thallium	ND	1.0	0.42	1	B7A0004	01/03/2017	01/03/17 15:54	
Vanadium	25	1.0	0.19	1	B7A0004	01/03/2017	01/03/17 15:54	
Zinc	48	1.0	0.18	1	B7A0004	01/03/2017	01/03/17 15:54	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.04	0.10	0.02	1	B7A0005	01/03/2017	01/03/17 16:05	J

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	160	10	10	10	B6L1010	12/28/2016	12/28/16 23:21	
ORO	550	10	10	10	B6L1010	12/28/2016	12/28/16 23:21	
Surrogate: p-Terphenyl	0%		18 - 130		B6L1010	12/28/2016	12/28/16 23:21	S4



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Client Sample ID Composite IDW SOIL Lab ID: 1604849-45

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B6L1043	12/29/2016	12/29/16 13:58	
4,4'-DDE	ND	2.0	0.20	1	B6L1043	12/29/2016	12/29/16 13:58	
4,4'-DDT	ND	2.0	0.13	1	B6L1043	12/29/2016	12/29/16 13:58	
Aldrin	ND	1.0	0.27	1	B6L1043	12/29/2016	12/29/16 13:58	
alpha-BHC	ND	1.0	0.20	1	B6L1043	12/29/2016	12/29/16 13:58	
alpha-Chlordane	ND	1.0	0.21	1	B6L1043	12/29/2016	12/29/16 13:58	
beta-BHC	ND	1.0	0.23	1	B6L1043	12/29/2016	12/29/16 13:58	
Chlordane	ND	8.5	0.90	1	B6L1043	12/29/2016	12/29/16 13:58	
delta-BHC	ND	1.0	0.21	1	B6L1043	12/29/2016	12/29/16 13:58	
Dieldrin	ND	2.0	0.25	1	B6L1043	12/29/2016	12/29/16 13:58	
Endosulfan I	ND	1.0	0.21	1	B6L1043	12/29/2016	12/29/16 13:58	
Endosulfan II	ND	2.0	0.22	1	B6L1043	12/29/2016	12/29/16 13:58	
Endosulfan sulfate	ND	2.0	0.21	1	B6L1043	12/29/2016	12/29/16 13:58	
Endrin	ND	2.0	0.23	1	B6L1043	12/29/2016	12/29/16 13:58	
Endrin aldehyde	ND	2.0	0.28	1	B6L1043	12/29/2016	12/29/16 13:58	
Endrin ketone	ND	2.0	0.20	1	B6L1043	12/29/2016	12/29/16 13:58	
gamma-BHC	ND	1.0	0.20	1	B6L1043	12/29/2016	12/29/16 13:58	
gamma-Chlordane	ND	1.0	0.23	1	B6L1043	12/29/2016	12/29/16 13:58	
Heptachlor	ND	1.0	0.19	1	B6L1043	12/29/2016	12/29/16 13:58	
Heptachlor epoxide	ND	1.0	0.20	1	B6L1043	12/29/2016	12/29/16 13:58	
Methoxychlor	ND	5.0	0.18	1	B6L1043	12/29/2016	12/29/16 13:58	
Toxaphene	ND	50	8.2	1	B6L1043	12/29/2016	12/29/16 13:58	
Surrogate: Decachlorobiphenyl	63.8 %		27 - 123		B6L1043	12/29/2016	12/29/16 13:58	
Surrogate: Tetrachloro-m-xylene	43.8 %		26 - 108		B6L1043	12/29/2016	12/29/16 13:58	



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Project Number : ROOSEVELT HS, 265642
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Reported : 01/05/2017

Client Sample ID AA2684-6 @ 0.5 - DUP
Lab ID: 1604849-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	28	1.0	0.70	1	B6L1079	12/30/2016	12/30/16 18:11	



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Project Number : ROOSEVELT HS, 265642
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Client Sample ID AA2543-7 @ 2.5 - DUP

Lab ID: 1604849-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	0.70	1	B6L1079	12/30/2016	12/30/16 18:12	



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Project Number : ROOSEVELT HS, 265642

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Reported : 01/05/2017

Client Sample ID AA2038-7 @ 3.5 - DUP

Lab ID: 1604849-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B6L1079	12/30/2016	12/30/16 18:13	



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Project Number : ROOSEVELT HS, 265642

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Reported : 01/05/2017

Client Sample ID AA2249-5 @ 0.5 - DUP

Lab ID: 1604849-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	0.70	1	B6L1079	12/30/2016	12/30/16 18:14	



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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1069 - EPA 3050B_S									
Blank (B6L1069-BLK1)				Prepared: 12/30/2016 Analyzed: 12/30/2016					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B6L1069-BS1)				Prepared: 12/30/2016 Analyzed: 12/30/2016					
Arsenic	45.3718	1.0	50.0000		90.7	80 - 120			
Lead	46.2843	1.0	50.0000		92.6	80 - 120			
Duplicate (B6L1069-DUP1)				Source: 1604849-01		Prepared: 12/30/2016 Analyzed: 12/30/2016			
Arsenic	2.10437	1.0		1.74227	NR		18.8	20	
Lead	2.99196	1.0		2.49079	NR		18.3	20	
Matrix Spike (B6L1069-MS1)				Source: 1604849-01		Prepared: 12/30/2016 Analyzed: 12/30/2016			
Arsenic	91.0358	1.0	125.000	1.74227	71.4	59 - 103			
Lead	90.0068	1.0	125.000	2.49079	70.0	34 - 129			
Matrix Spike Dup (B6L1069-MSD1)				Source: 1604849-01		Prepared: 12/30/2016 Analyzed: 12/30/2016			
Arsenic	87.9210	1.0	125.000	1.74227	68.9	59 - 103	3.48	20	
Lead	84.5472	1.0	125.000	2.49079	65.6	34 - 129	6.26	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1070 - EPA 3050B_S

Blank (B6L1070-BLK1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6L1070-BS1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	45.7817	1.0	50.0000		91.6	80 - 120			
Lead	47.1998	1.0	50.0000		94.4	80 - 120			

Duplicate (B6L1070-DUP1)

Source: 1604849-20

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	1.59535	1.0		1.45216	NR		9.40	20	
Lead	3.54879	1.0		4.01796	NR		12.4	20	

Matrix Spike (B6L1070-MS1)

Source: 1604849-20

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	101.213	1.0	125.000	1.45216	79.8	59 - 103			
Lead	101.264	1.0	125.000	4.01796	77.8	34 - 129			

Matrix Spike Dup (B6L1070-MSD1)

Source: 1604849-20

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	96.5750	1.0	125.000	1.45216	76.1	59 - 103	4.69	20	
Lead	98.6066	1.0	125.000	4.01796	75.7	34 - 129	2.66	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1072 - EPA 3050B_S

Blank (B6L1072-BLK1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6L1072-BS1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	47.5049	1.0	50.0000		95.0	80 - 120			
Lead	48.2032	1.0	50.0000		96.4	80 - 120			

Duplicate (B6L1072-DUP1)

Source: 1604849-39

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	2.75636	1.0		3.03630	NR		9.67	20	
Lead	32.8274	1.0		34.8456	NR		5.96	20	

Matrix Spike (B6L1072-MS1)

Source: 1604849-39

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	98.2024	1.0	125.000	3.03630	76.1	59 - 103			
Lead	125.473	1.0	125.000	34.8456	72.5	34 - 129			

Matrix Spike Dup (B6L1072-MSD1)

Source: 1604849-39

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	108.164	1.0	125.000	3.03630	84.1	59 - 103	9.65	20	
Lead	167.780	1.0	125.000	34.8456	106	34 - 129	28.9	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1079 - EPA 3050B_S

Blank (B6L1079-BLK1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	ND	1.0			NR	
Lead	ND	1.0			NR	

LCS (B6L1079-BS1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	48.0357	1.0	50.0000	96.1	80 - 120
Lead	49.3521	1.0	50.0000	98.7	80 - 120

Duplicate (B6L1079-DUP1)

Source: 1604849-49

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	5.78606	1.0		5.42701	NR	6.40	20
Lead	6.74328	1.0		5.55612	NR	19.3	20

Matrix Spike (B6L1079-MS1)

Source: 1604849-49

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	113.976	1.0	125.000	5.42701	86.8	59 - 103
Lead	117.400	1.0	125.000	5.55612	89.5	34 - 129

Matrix Spike Dup (B6L1079-MSD1)

Source: 1604849-49

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	108.323	1.0	125.000	5.42701	82.3	59 - 103	5.09	20
Lead	106.049	1.0	125.000	5.55612	80.4	34 - 129	10.2	20



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0050 - EPA 3010A_W

Blank (B7A0050-BLK1)

Prepared: 1/4/2017 Analyzed: 1/4/2017

Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				

LCS (B7A0050-BS1)

Prepared: 1/4/2017 Analyzed: 1/4/2017

Arsenic	0.964949	0.010	1.00000		96.5	80 - 120			
Lead	0.997662	0.0050	1.00000		99.8	80 - 120			

Duplicate (B7A0050-DUP1)

Source: 1604849-43

Prepared: 1/4/2017 Analyzed: 1/4/2017

Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		0.003149	NR			20	

Matrix Spike (B7A0050-MS1)

Source: 1604849-43

Prepared: 1/4/2017 Analyzed: 1/4/2017

Arsenic	2.42311	0.010	2.50000	ND	96.9	74 - 123			
Lead	2.50194	0.0050	2.50000	0.003149	100	78 - 109			

Matrix Spike Dup (B7A0050-MSD1)

Source: 1604849-43

Prepared: 1/4/2017 Analyzed: 1/4/2017

Arsenic	2.44750	0.010	2.50000	ND	97.9	74 - 123	1.00	20	
Lead	2.52577	0.0050	2.50000	0.003149	101	78 - 109	0.948	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0004 - EPA 3050B_S

Blank (B7A0004-BLK1)

Prepared: 1/3/2017 Analyzed: 1/3/2017

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	0.114873	1.0			NR				J
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				

LCS (B7A0004-BS1)

Prepared: 1/3/2017 Analyzed: 1/3/2017

Antimony	45.4856	2.0	50.0000	91.0	80 - 120
Arsenic	44.1011	1.0	50.0000	88.2	80 - 120
Barium	46.9346	1.0	50.0000	93.9	80 - 120
Beryllium	45.3091	1.0	50.0000	90.6	80 - 120
Cadmium	44.3620	1.0	50.0000	88.7	80 - 120
Chromium	47.4531	1.0	50.0000	94.9	80 - 120
Cobalt	47.1584	1.0	50.0000	94.3	80 - 120
Copper	47.8330	2.0	50.0000	95.7	80 - 120
Lead	45.0429	1.0	50.0000	90.1	80 - 120
Molybdenum	46.5002	1.0	50.0000	93.0	80 - 120
Nickel	45.8046	1.0	50.0000	91.6	80 - 120
Selenium	41.5727	1.0	50.0000	83.1	80 - 120
Silver	45.5647	1.0	50.0000	91.1	80 - 120
Thallium	44.8291	1.0	50.0000	89.7	80 - 120
Vanadium	48.0737	1.0	50.0000	96.1	80 - 120
Zinc	43.6208	1.0	50.0000	87.2	80 - 120

Duplicate (B7A0004-DUP1)

Source: 1604885-08

Prepared: 1/3/2017 Analyzed: 1/3/2017

Antimony	ND	2.0	ND	NR		20	
Arsenic	4.11027	1.0	4.23777	NR	3.05	20	
Barium	88.6676	1.0	87.0324	NR	1.86	20	
Beryllium	0.294282	1.0	0.279713	NR	5.08	20	J
Cadmium	ND	1.0	ND	NR		20	
Chromium	12.5669	1.0	12.1870	NR	3.07	20	



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0004 - EPA 3050B_S (continued)

Duplicate (B7A0004-DUP1) - Continued

Source: 1604885-08

Prepared: 1/3/2017 Analyzed: 1/3/2017

Cobalt	6.45496	1.0		5.79102	NR		10.8	20	
Copper	18.4374	2.0		17.5433	NR		4.97	20	
Lead	57.4205	1.0		48.3584	NR		17.1	20	
Molybdenum	ND	1.0		ND	NR			20	
Nickel	10.6517	1.0		10.1686	NR		4.64	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		ND	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	21.8034	1.0		20.5497	NR		5.92	20	
Zinc	316.010	1.0		108.249	NR		97.9	20	R

Matrix Spike (B7A0004-MS1)

Source: 1604885-08

Prepared: 1/3/2017 Analyzed: 1/3/2017

Antimony	81.2605	2.0	125.000	ND	65.0	34 - 103			
Arsenic	98.4936	1.0	125.000	4.23777	75.4	59 - 103			
Barium	179.535	1.0	125.000	87.0324	74.0	30 - 134			
Beryllium	98.8425	1.0	125.000	0.279713	78.9	62 - 105			
Cadmium	89.4773	1.0	125.000	ND	71.6	53 - 102			
Chromium	110.464	1.0	125.000	12.1870	78.6	51 - 111			
Cobalt	101.856	1.0	125.000	5.79102	76.9	55 - 105			
Copper	123.056	2.0	125.000	17.5433	84.4	53 - 126			
Lead	141.526	1.0	125.000	48.3584	74.5	34 - 129			
Molybdenum	97.2161	1.0	125.000	ND	77.8	57 - 105			
Nickel	103.925	1.0	125.000	10.1686	75.0	49 - 109			
Selenium	88.5136	1.0	125.000	ND	70.8	57 - 99			
Silver	99.0110	1.0	125.000	ND	79.2	64 - 105			
Thallium	90.6910	1.0	125.000	ND	72.6	46 - 105			
Vanadium	121.830	1.0	125.000	20.5497	81.0	60 - 109			
Zinc	175.949	1.0	250.000	108.249	27.1	29 - 122			M1

Matrix Spike Dup (B7A0004-MSD1)

Source: 1604885-08

Prepared: 1/3/2017 Analyzed: 1/3/2017

Antimony	86.0744	2.0	125.000	ND	68.9	34 - 103	5.75	20	
Arsenic	100.269	1.0	125.000	4.23777	76.8	59 - 103	1.79	20	
Barium	185.869	1.0	125.000	87.0324	79.1	30 - 134	3.47	20	
Beryllium	99.6240	1.0	125.000	0.279713	79.5	62 - 105	0.788	20	
Cadmium	93.4804	1.0	125.000	ND	74.8	53 - 102	4.38	20	
Chromium	120.159	1.0	125.000	12.1870	86.4	51 - 111	8.41	20	
Cobalt	105.321	1.0	125.000	5.79102	79.6	55 - 105	3.34	20	
Copper	128.535	2.0	125.000	17.5433	88.8	53 - 126	4.36	20	
Lead	147.768	1.0	125.000	48.3584	79.5	34 - 129	4.32	20	
Molybdenum	97.0018	1.0	125.000	ND	77.6	57 - 105	0.221	20	
Nickel	106.421	1.0	125.000	10.1686	77.0	49 - 109	2.37	20	
Selenium	93.3035	1.0	125.000	ND	74.6	57 - 99	5.27	20	



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Report To : John Nordenstam
Reported : 01/05/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7A0004 - EPA 3050B_S (continued)

Matrix Spike Dup (B7A0004-MSD1) - Continued

Source: 1604885-08

Prepared: 1/3/2017 Analyzed: 1/3/2017

Silver	104.601	1.0	125.000	ND	83.7	64 - 105	5.49	20	
Thallium	95.0180	1.0	125.000	ND	76.0	46 - 105	4.66	20	
Vanadium	126.292	1.0	125.000	20.5497	84.6	60 - 109	3.60	20	
Zinc	185.184	1.0	250.000	108.249	30.8	29 - 122	5.11	20	



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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0005 - EPA 7471_S									
Blank (B7A0005-BLK1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Mercury	ND	0.10			NR				
LCS (B7A0005-BS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Mercury	0.896537	0.10	0.833333		108	80 - 120			
Duplicate (B7A0005-DUP1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Mercury	0.123118	0.10		0.124592	NR		1.19	20	
Matrix Spike (B7A0005-MS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Mercury	0.994771	0.10	0.833333	0.124592	104	70 - 130			
Matrix Spike Dup (B7A0005-MSD1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Mercury	0.972866	0.10	0.833333	0.124592	102	70 - 130	2.23	20	
Post Spike (B7A0005-PS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Mercury	7.6917E-3		5.00000E-3	0.001495	124	85 - 115			M1



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Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0914 - GCVOA_S

Blank (B6L0914-BLK1)

Prepared: 12/27/2016 Analyzed: 12/27/2016

Gasoline Range Organics	ND	1.0				NR			
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Surrogate: 4-Bromofluorobenzene

0.1857

0.200000

92.9

36 - 125

LCS (B6L0914-BS1)

Prepared: 12/27/2016 Analyzed: 12/27/2016

Gasoline Range Organics	3.79100	1.0	5.00000		75.8	70 - 130			
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Surrogate: 4-Bromofluorobenzene

0.1544

0.200000

77.2

36 - 125

Matrix Spike (B6L0914-MS1)

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

Gasoline Range Organics	4.56800	1.0	5.00000	ND	91.4	32 - 161			
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Surrogate: 4-Bromofluorobenzene

0.1896

0.200000

94.8

36 - 125

Matrix Spike Dup (B6L0914-MSD1)

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

Gasoline Range Organics	3.20300	1.0	5.00000	ND	64.1	32 - 161	35.1	20	R
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Surrogate: 4-Bromofluorobenzene

0.1512

0.200000

75.6

36 - 125



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Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1010 - GCSEMI_DRO_LL_S

Blank (B6L1010-BLK1)

Prepared: 12/28/2016 Analyzed: 12/28/2016

DRO	ND	1.0			NR				
ORO	ND	1.0			NR				

Surrogate: <i>p</i> -Terphenyl	1.876		2.89667		64.8	18 - 130			
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LCS (B6L1010-BS1)

Prepared: 12/28/2016 Analyzed: 12/28/2016

DRO	16.5473	1.0	33.3333		49.6	34 - 120			
Surrogate: <i>p</i> -Terphenyl	1.908		2.89667		65.9	18 - 130			

Matrix Spike (B6L1010-MS1)

Source: 1604849-45

Prepared: 12/28/2016 Analyzed: 12/28/2016

DRO	149.533	10	33.3333	157.483	-23.9	12 - 132			M2
Surrogate: <i>p</i> -Terphenyl	0.000		2.89667		NR	18 - 130			S4

Matrix Spike Dup (B6L1010-MSD1)

Source: 1604849-45

Prepared: 12/28/2016 Analyzed: 12/28/2016

DRO	157.690	10	33.3333	157.483	0.620	12 - 132	5.31	20	M2
Surrogate: <i>p</i> -Terphenyl	0.000		2.89667		NR	18 - 130			S4



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Project Number : ROOSEVELT HS, 265642
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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1043 - GCSEMI_PCB/PEST_S

Blank (B6L1043-BLK1)

Prepared: 12/29/2016 Analyzed: 12/29/2016

4,4'-DDD	ND	2.0			NR
4,4'-DDD [2C]	ND	2.0			NR
4,4'-DDE	ND	2.0			NR
4,4'-DDE [2C]	ND	2.0			NR
4,4'-DDT	ND	2.0			NR
4,4'-DDT [2C]	ND	2.0			NR
Aldrin	ND	1.0			NR
Aldrin [2C]	ND	1.0			NR
alpha-BHC	ND	1.0			NR
alpha-BHC [2C]	ND	1.0			NR
alpha-Chlordane	ND	1.0			NR
alpha-Chlordane [2C]	ND	1.0			NR
beta-BHC	ND	1.0			NR
beta-BHC [2C]	ND	1.0			NR
Chlordane	ND	8.5			NR
Chlordane [2C]	ND	8.5			NR
delta-BHC	ND	1.0			NR
delta-BHC [2C]	ND	1.0			NR
Dieldrin	ND	2.0			NR
Dieldrin [2C]	ND	2.0			NR
Endosulfan I	ND	1.0			NR
Endosulfan I [2C]	ND	1.0			NR
Endosulfan II	ND	2.0			NR
Endosulfan II [2C]	ND	2.0			NR
Endosulfan sulfate	ND	2.0			NR
Endosulfan Sulfate [2C]	ND	2.0			NR
Endrin	ND	2.0			NR
Endrin [2C]	ND	2.0			NR
Endrin aldehyde	ND	2.0			NR
Endrin aldehyde [2C]	ND	2.0			NR
Endrin ketone	ND	2.0			NR
Endrin ketone [2C]	ND	2.0			NR
gamma-BHC	ND	1.0			NR
gamma-BHC [2C]	ND	1.0			NR
gamma-Chlordane	ND	1.0			NR
gamma-Chlordane [2C]	ND	1.0			NR
Heptachlor	ND	1.0			NR
Heptachlor [2C]	ND	1.0			NR
Heptachlor epoxide	ND	1.0			NR
Heptachlor epoxide [2C]	ND	1.0			NR
Methoxychlor	ND	5.0			NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1043 - GCSEMI_PCB/PEST_S (continued)

Blank (B6L1043-BLK1) - Continued

Prepared: 12/29/2016 Analyzed: 12/29/2016

Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
<i>Surrogate: Decachlorobiphenyl</i>	<i>14.24</i>		<i>16.6667</i>		<i>85.4</i>	<i>27 - 123</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>15.23</i>		<i>16.6667</i>		<i>91.4</i>	<i>27 - 123</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>15.54</i>		<i>16.6667</i>		<i>93.3</i>	<i>26 - 108</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>15.97</i>		<i>16.6667</i>		<i>95.8</i>	<i>26 - 108</i>		

LCS (B6L1043-BS1)

Prepared: 12/29/2016 Analyzed: 12/29/2016

4,4'-DDD	14.3180	2.0	16.6667		85.9	53 - 125		
4,4'-DDD [2C]	16.1012	2.0	16.6667		96.6	53 - 125		
4,4'-DDE	14.2513	2.0	16.6667		85.5	54 - 113		
4,4'-DDE [2C]	14.7245	2.0	16.6667		88.3	54 - 113		
4,4'-DDT	14.3382	2.0	16.6667		86.0	25 - 127		
4,4'-DDT [2C]	14.4488	2.0	16.6667		86.7	25 - 127		
Aldrin	13.9207	1.0	16.6667		83.5	59 - 107		
Aldrin [2C]	14.8757	1.0	16.6667		89.3	59 - 107		
alpha-BHC	14.1278	1.0	16.6667		84.8	59 - 104		
alpha-BHC [2C]	15.0430	1.0	16.6667		90.3	59 - 104		
alpha-Chlordane	13.9192	1.0	16.6667		83.5	54 - 110		
alpha-Chlordane [2C]	14.8793	1.0	16.6667		89.3	54 - 110		
beta-BHC	13.6168	1.0	16.6667		81.7	57 - 103		
beta-BHC [2C]	14.7803	1.0	16.6667		88.7	57 - 103		
delta-BHC	11.2052	1.0	16.6667		67.2	16 - 120		
delta-BHC [2C]	11.9850	1.0	16.6667		71.9	16 - 120		
Dieldrin	14.3398	2.0	16.6667		86.0	61 - 109		
Dieldrin [2C]	15.4952	2.0	16.6667		93.0	61 - 109		
Endosulfan I	13.7077	1.0	16.6667		82.2	60 - 106		
Endosulfan I [2C]	15.2040	1.0	16.6667		91.2	60 - 106		
Endosulfan II	13.5867	2.0	16.6667		81.5	59 - 108		
Endosulfan II [2C]	15.0460	2.0	16.6667		90.3	59 - 108		
Endosulfan sulfate	12.9927	2.0	16.6667		78.0	54 - 110		
Endosulfan Sulfate [2C]	14.1365	2.0	16.6667		84.8	54 - 110		
Endrin	14.5083	2.0	16.6667		87.0	63 - 112		
Endrin [2C]	15.8860	2.0	16.6667		95.3	63 - 112		
Endrin aldehyde	14.6862	2.0	16.6667		88.1	64 - 119		
Endrin aldehyde [2C]	15.0453	2.0	16.6667		90.3	64 - 119		
Endrin ketone	14.3710	2.0	16.6667		86.2	54 - 115		
Endrin ketone [2C]	15.5693	2.0	16.6667		93.4	54 - 115		
gamma-BHC	14.5520	1.0	16.6667		87.3	60 - 107		
gamma-BHC [2C]	15.5217	1.0	16.6667		93.1	60 - 107		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1043 - GCSEMI_PCB/PEST_S (continued)

LCS (B6L1043-BS1) - Continued

Prepared: 12/29/2016 Analyzed: 12/29/2016

gamma-Chlordane	13.7293	1.0	16.6667		82.4	57 - 106			
gamma-Chlordane [2C]	14.5123	1.0	16.6667		87.1	57 - 106			
Heptachlor	14.4332	1.0	16.6667		86.6	54 - 114			
Heptachlor [2C]	16.6702	1.0	16.6667		100	54 - 114			
Heptachlor epoxide	13.7447	1.0	16.6667		82.5	61 - 106			
Heptachlor epoxide [2C]	15.1358	1.0	16.6667		90.8	61 - 106			
Methoxychlor	14.8332	5.0	16.6667		89.0	18 - 138			
Methoxychlor [2C]	16.1077	5.0	16.6667		96.6	18 - 138			
<i>Surrogate: Decachlorobiphenyl</i>	<i>13.72</i>		<i>16.6667</i>		<i>82.3</i>	<i>27 - 123</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>14.24</i>		<i>16.6667</i>		<i>85.4</i>	<i>27 - 123</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>15.02</i>		<i>16.6667</i>		<i>90.1</i>	<i>26 - 108</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>13.90</i>		<i>16.6667</i>		<i>83.4</i>	<i>26 - 108</i>			

Duplicate (B6L1043-DUP1)

Source: 1604849-45

Prepared: 12/29/2016 Analyzed: 12/29/2016

4,4'-DDD	ND	2.0		ND	NR			20	
4,4'-DDD [2C]	ND	2.0		ND	NR			20	
4,4'-DDE	ND	2.0		ND	NR			20	
4,4'-DDE [2C]	ND	2.0		ND	NR			20	
4,4'-DDT	ND	2.0		ND	NR			20	
4,4'-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1043 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B6L1043-DUP1) - Continued

Source: 1604849-45

Prepared: 12/29/2016 Analyzed: 12/29/2016

Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	

Surrogate: Decachlorobiphenyl	10.85		16.6667		65.1	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	10.74		16.6667		64.4	27 - 123			
Surrogate: Tetrachloro-m-xylene	8.974		16.6667		53.8	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	9.968		16.6667		59.8	26 - 108			

Matrix Spike (B6L1043-MS1)

Source: 1604849-45

Prepared: 12/29/2016 Analyzed: 12/29/2016

4,4'-DDD	3.86117	2.0	16.6667	ND	23.2	25 - 141			M2
4,4'-DDD [2C]	3.86833	2.0	16.6667	ND	23.2	25 - 141			M2
4,4'-DDE	5.25800	2.0	16.6667	ND	31.5	22 - 141			
4,4'-DDE [2C]	5.23067	2.0	16.6667	ND	31.4	22 - 141			
4,4'-DDT	5.67983	2.0	16.6667	ND	34.1	15 - 136			
4,4'-DDT [2C]	6.80417	2.0	16.6667	ND	40.8	15 - 136			
Aldrin	4.78767	1.0	16.6667	ND	28.7	33 - 118			M2
Aldrin [2C]	4.79133	1.0	16.6667	ND	28.7	33 - 118			M2
alpha-BHC	4.10383	1.0	16.6667	ND	24.6	30 - 116			M2
alpha-BHC [2C]	4.46250	1.0	16.6667	ND	26.8	30 - 116			M2
alpha-Chlordane	4.66900	1.0	16.6667	ND	28.0	30 - 123			M2
alpha-Chlordane [2C]	4.49150	1.0	16.6667	ND	26.9	30 - 123			M2
beta-BHC	2.21883	1.0	16.6667	ND	13.3	24 - 121			M2
beta-BHC [2C]	2.58333	1.0	16.6667	ND	15.5	24 - 121			M2
delta-BHC	1.28167	1.0	16.6667	ND	7.69	7 - 120			
delta-BHC [2C]	1.22767	1.0	16.6667	ND	7.37	7 - 120			
Dieldrin	2.65783	2.0	16.6667	ND	15.9	25 - 136			M2
Dieldrin [2C]	2.65950	2.0	16.6667	ND	16.0	25 - 136			M2
Endosulfan I	2.93800	1.0	16.6667	ND	17.6	18 - 134			M2
Endosulfan I [2C]	2.90183	1.0	16.6667	ND	17.4	18 - 134			M2
Endosulfan II	1.27233	2.0	16.6667	ND	7.63	28 - 128			M2, J
Endosulfan II [2C]	1.41650	2.0	16.6667	ND	8.50	28 - 128			M2, J



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1043 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B6L1043-MS1) - Continued

Source: 1604849-45

Prepared: 12/29/2016 Analyzed: 12/29/2016

Endosulfan sulfate	1.09450	2.0	16.6667	ND	6.57	5 - 145			J
Endosulfan Sulfate [2C]	1.04933	2.0	16.6667	ND	6.30	5 - 145			J
Endrin	2.90000	2.0	16.6667	ND	17.4	26 - 142			M2
Endrin [2C]	2.79367	2.0	16.6667	ND	16.8	26 - 142			M2
Endrin aldehyde	1.21700	2.0	16.6667	ND	7.30	8 - 146			M2, J
Endrin aldehyde [2C]	1.40567	2.0	16.6667	ND	8.43	8 - 146			J
Endrin ketone	1.47950	2.0	16.6667	ND	8.88	16 - 139			M2, J
Endrin ketone [2C]	1.50550	2.0	16.6667	ND	9.03	16 - 139			M2, J
gamma-BHC	3.67550	1.0	16.6667	ND	22.1	30 - 122			M2
gamma-BHC [2C]	3.91483	1.0	16.6667	ND	23.5	30 - 122			M2
gamma-Chlordane	3.93450	1.0	16.6667	ND	23.6	18 - 132			
gamma-Chlordane [2C]	4.24817	1.0	16.6667	ND	25.5	18 - 132			
Heptachlor	5.08967	1.0	16.6667	ND	30.5	34 - 122			M2
Heptachlor [2C]	5.58350	1.0	16.6667	ND	33.5	34 - 122			M2
Heptachlor epoxide	2.97383	1.0	16.6667	ND	17.8	21 - 135			M2
Heptachlor epoxide [2C]	3.12683	1.0	16.6667	ND	18.8	21 - 135			M2
Methoxychlor	2.40367	5.0	16.6667	ND	14.4	8 - 162			J
Methoxychlor [2C]	3.64217	5.0	16.6667	ND	21.9	8 - 162			J
Surrogate: Decachlorobiphenyl	6.169		16.6667		37.0	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	6.320		16.6667		37.9	27 - 123			
Surrogate: Tetrachloro-m-xylene	5.700		16.6667		34.2	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	7.347		16.6667		44.1	26 - 108			

Matrix Spike Dup (B6L1043-MSD1)

Source: 1604849-45

Prepared: 12/29/2016 Analyzed: 12/29/2016

4,4'-DDD	3.63150	2.0	16.6667	ND	21.8	25 - 141	6.13	20	M2
4,4'-DDD [2C]	3.53800	2.0	16.6667	ND	21.2	25 - 141	8.92	20	M2
4,4'-DDE	5.06417	2.0	16.6667	ND	30.4	22 - 141	3.76	20	
4,4'-DDE [2C]	4.77217	2.0	16.6667	ND	28.6	22 - 141	9.17	20	
4,4'-DDT	5.36283	2.0	16.6667	ND	32.2	15 - 136	5.74	20	
4,4'-DDT [2C]	6.39417	2.0	16.6667	ND	38.4	15 - 136	6.21	20	
Aldrin	4.74650	1.0	16.6667	ND	28.5	33 - 118	0.864	20	M2
Aldrin [2C]	4.40033	1.0	16.6667	ND	26.4	33 - 118	8.51	20	M2
alpha-BHC	4.05100	1.0	16.6667	ND	24.3	30 - 116	1.30	20	M2
alpha-BHC [2C]	3.84967	1.0	16.6667	ND	23.1	30 - 116	14.7	20	M2
alpha-Chlordane	4.39767	1.0	16.6667	ND	26.4	30 - 123	5.99	20	M2
alpha-Chlordane [2C]	3.99833	1.0	16.6667	ND	24.0	30 - 123	11.6	20	M2
beta-BHC	1.98200	1.0	16.6667	ND	11.9	24 - 121	11.3	20	M2
beta-BHC [2C]	1.83417	1.0	16.6667	ND	11.0	24 - 121	33.9	20	M2, R3
delta-BHC	1.10850	1.0	16.6667	ND	6.65	7 - 120	14.5	20	M2
delta-BHC [2C]	0.891833	1.0	16.6667	ND	5.35	7 - 120	31.7	20	M2, R3, J
Dieldrin	2.32317	2.0	16.6667	ND	13.9	25 - 136	13.4	20	M2



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1043 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B6L1043-MSD1) - Continued

Source: 1604849-45

Prepared: 12/29/2016 Analyzed: 12/29/2016

Dieldrin [2C]	2.17867	2.0	16.6667	ND	13.1	25 - 136	19.9	20	M2
Endosulfan I	2.67033	1.0	16.6667	ND	16.0	18 - 134	9.55	20	M2
Endosulfan I [2C]	2.48067	1.0	16.6667	ND	14.9	18 - 134	15.6	20	M2
Endosulfan II	0.979667	2.0	16.6667	ND	5.88	28 - 128	26.0	20	M2, R3, J
Endosulfan II [2C]	1.10700	2.0	16.6667	ND	6.64	28 - 128	24.5	20	M2, R3, J
Endosulfan sulfate	0.863167	2.0	16.6667	ND	5.18	5 - 145	23.6	20	R3, J
Endosulfan Sulfate [2C]	0.862333	2.0	16.6667	ND	5.17	5 - 145	19.6	20	J
Endrin	2.48817	2.0	16.6667	ND	14.9	26 - 142	15.3	20	M2
Endrin [2C]	2.32417	2.0	16.6667	ND	13.9	26 - 142	18.3	20	M2
Endrin aldehyde	1.27150	2.0	16.6667	ND	7.63	8 - 146	4.38	20	M2, J
Endrin aldehyde [2C]	1.03683	2.0	16.6667	ND	6.22	8 - 146	30.2	20	M2, R3, J
Endrin ketone	1.22517	2.0	16.6667	ND	7.35	16 - 139	18.8	20	M2, J
Endrin ketone [2C]	1.12867	2.0	16.6667	ND	6.77	16 - 139	28.6	20	M2, R3, J
gamma-BHC	3.51567	1.0	16.6667	ND	21.1	30 - 122	4.45	20	M2
gamma-BHC [2C]	3.37367	1.0	16.6667	ND	20.2	30 - 122	14.8	20	M2
gamma-Chlordane	3.65833	1.0	16.6667	ND	21.9	18 - 132	7.27	20	
gamma-Chlordane [2C]	3.95133	1.0	16.6667	ND	23.7	18 - 132	7.24	20	
Heptachlor	5.08567	1.0	16.6667	ND	30.5	34 - 122	0.0786	20	M2
Heptachlor [2C]	5.24067	1.0	16.6667	ND	31.4	34 - 122	6.33	20	M2
Heptachlor epoxide	2.65033	1.0	16.6667	ND	15.9	21 - 135	11.5	20	M2
Heptachlor epoxide [2C]	2.67450	1.0	16.6667	ND	16.0	21 - 135	15.6	20	M2
Methoxychlor	1.99033	5.0	16.6667	ND	11.9	8 - 162	18.8	20	J
Methoxychlor [2C]	3.72583	5.0	16.6667	ND	22.4	8 - 162	2.27	20	J
Surrogate: Decachlorobiphenyl	6.242		16.6667		37.5	27 - 123			
Surrogate: Decachlorobiphenyl [2C]	5.773		16.6667		34.6	27 - 123			
Surrogate: Tetrachloro-m-xylene	5.732		16.6667		34.4	26 - 108			
Surrogate: Tetrachloro-m-xylene [2C]	6.366		16.6667		38.2	26 - 108			



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S

Blank (B6L0911-BLK1)

Prepared: 12/27/2016 Analyzed: 12/27/2016

1,1,1,2-Tetrachloroethane	ND	5.0			NR
1,1,1-Trichloroethane	ND	5.0			NR
1,1,2,2-Tetrachloroethane	ND	5.0			NR
1,1,2-Trichloroethane	ND	5.0			NR
1,1-Dichloroethane	ND	5.0			NR
1,1-Dichloroethene	ND	5.0			NR
1,1-Dichloropropene	ND	5.0			NR
1,2,3-Trichloropropane	ND	5.0			NR
1,2,3-Trichlorobenzene	ND	5.0			NR
1,2,4-Trichlorobenzene	ND	5.0			NR
1,2,4-Trimethylbenzene	ND	5.0			NR
1,2-Dibromo-3-chloropropane	ND	10			NR
1,2-Dibromoethane	ND	5.0			NR
1,2-Dichlorobenzene	ND	5.0			NR
1,2-Dichloroethane	ND	5.0			NR
1,2-Dichloropropane	ND	5.0			NR
1,3,5-Trimethylbenzene	ND	5.0			NR
1,3-Dichlorobenzene	ND	5.0			NR
1,3-Dichloropropane	ND	5.0			NR
1,4-Dichlorobenzene	ND	5.0			NR
2,2-Dichloropropane	ND	5.0			NR
2-Chlorotoluene	ND	5.0			NR
4-Chlorotoluene	ND	5.0			NR
4-Isopropyltoluene	ND	5.0			NR
Benzene	ND	5.0			NR
Bromobenzene	ND	5.0			NR
Bromochloromethane	ND	5.0			NR
Bromodichloromethane	ND	5.0			NR
Bromoform	ND	5.0			NR
Bromomethane	ND	5.0			NR
Carbon disulfide	ND	5.0			NR
Carbon tetrachloride	ND	5.0			NR
Chlorobenzene	ND	5.0			NR
Chloroethane	ND	5.0			NR
Chloroform	ND	5.0			NR
Chloromethane	ND	5.0			NR
cis-1,2-Dichloroethene	ND	5.0			NR
cis-1,3-Dichloropropene	ND	5.0			NR
Di-isopropyl ether	ND	5.0			NR
Dibromochloromethane	ND	5.0			NR
Dibromomethane	ND	5.0			NR



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S (continued)

Blank (B6L0911-BLK1) - Continued

Prepared: 12/27/2016 Analyzed: 12/27/2016

Dichlorodifluoromethane	ND	5.0				NR			
Ethyl Acetate	ND	50				NR			
Ethyl Ether	ND	50				NR			
Ethyl tert-butyl ether	ND	5.0				NR			
Ethylbenzene	ND	5.0				NR			
Freon-113	ND	5.0				NR			
Hexachlorobutadiene	ND	5.0				NR			
Isopropylbenzene	ND	5.0				NR			
m,p-Xylene	ND	10				NR			
Methylene chloride	ND	5.0				NR			
MTBE	ND	5.0				NR			
n-Butylbenzene	ND	5.0				NR			
n-Propylbenzene	ND	5.0				NR			
Naphthalene	ND	5.0				NR			
o-Xylene	ND	5.0				NR			
sec-Butylbenzene	ND	5.0				NR			
Styrene	ND	5.0				NR			
tert-Amyl methyl ether	ND	5.0				NR			
tert-Butanol	ND	100				NR			
tert-Butylbenzene	ND	5.0				NR			
Tetrachloroethene	ND	5.0				NR			
Toluene	ND	5.0				NR			
trans-1,2-Dichloroethene	ND	5.0				NR			
trans-1,3-Dichloropropene	ND	5.0				NR			
Trichloroethene	ND	5.0				NR			
Trichlorofluoromethane	ND	5.0				NR			
Vinyl acetate	ND	50				NR			
Vinyl chloride	ND	5.0				NR			

Surrogate: 1,2-Dichloroethane-d4	47.79		50.0000		95.6	12 - 186
Surrogate: 4-Bromofluorobenzene	52.74		50.0000		105	23 - 162
Surrogate: Dibromofluoromethane	46.79		50.0000		93.6	23 - 179
Surrogate: Toluene-d8	52.68		50.0000		105	26 - 164

LCS (B6L0911-BS1)

Prepared: 12/27/2016 Analyzed: 12/27/2016

1,1,1,2-Tetrachloroethane	51.6700	5.0	50.0000		103	78 - 119
1,1,1-Trichloroethane	50.9500	5.0	50.0000		102	75 - 123
1,1,2,2-Tetrachloroethane	45.2600	5.0	50.0000		90.5	65 - 117
1,1,2-Trichloroethane	46.1600	5.0	50.0000		92.3	79 - 108
1,1-Dichloroethane	49.5600	5.0	50.0000		99.1	69 - 120
1,1-Dichloroethene	38.9400	5.0	50.0000		77.9	59 - 126
1,1-Dichloropropene	51.4000	5.0	50.0000		103	76 - 121



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Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S (continued)

LCS (B6L0911-BS1) - Continued

Prepared: 12/27/2016 Analyzed: 12/27/2016

1,2,3-Trichloropropane	41.9700	5.0	50.0000		83.9	66 - 118			
1,2,3-Trichlorobenzene	54.0600	5.0	50.0000		108	75 - 116			
1,2,4-Trichlorobenzene	55.9300	5.0	50.0000		112	79 - 121			
1,2,4-Trimethylbenzene	52.9700	5.0	50.0000		106	80 - 118			
1,2-Dibromo-3-chloropropane	49.1500	10	50.0000		98.3	65 - 122			
1,2-Dibromoethane	49.0800	5.0	50.0000		98.2	77 - 115			
1,2-Dichlorobenzene	50.2000	5.0	50.0000		100	81 - 115			
1,2-Dichloroethane	48.0100	5.0	50.0000		96.0	70 - 122			
1,2-Dichloropropane	47.4400	5.0	50.0000		94.9	77 - 110			
1,3,5-Trimethylbenzene	51.3500	5.0	50.0000		103	79 - 119			
1,3-Dichlorobenzene	47.9300	5.0	50.0000		95.9	81 - 116			
1,3-Dichloropropane	47.9900	5.0	50.0000		96.0	79 - 113			
1,4-Dichlorobenzene	51.7700	5.0	50.0000		104	80 - 117			
2,2-Dichloropropane	50.9300	5.0	50.0000		102	70 - 129			
2-Chlorotoluene	48.6300	5.0	50.0000		97.3	76 - 119			
4-Chlorotoluene	50.1500	5.0	50.0000		100	79 - 119			
4-Isopropyltoluene	56.2400	5.0	50.0000		112	80 - 122			
Benzene	96.8500	5.0	100.000		96.8	79 - 111			
Bromobenzene	43.6100	5.0	50.0000		87.2	77 - 114			
Bromochloromethane	44.9500	5.0	50.0000		89.9	69 - 117			
Bromodichloromethane	49.1700	5.0	50.0000		98.3	79 - 114			
Bromoform	49.1300	5.0	50.0000		98.3	72 - 122			
Bromomethane	96.3400	5.0	50.0000		193	47 - 176			L4
Carbon disulfide	47.2500	5.0	50.0000		94.5	50 - 133			
Carbon tetrachloride	55.6500	5.0	50.0000		111	68 - 143			
Chlorobenzene	48.5200	5.0	50.0000		97.0	81 - 113			
Chloroethane	55.8200	5.0	50.0000		112	47 - 148			
Chloroform	47.2000	5.0	50.0000		94.4	77 - 116			
Chloromethane	44.0500	5.0	50.0000		88.1	39 - 141			
cis-1,2-Dichloroethene	47.8700	5.0	50.0000		95.7	68 - 120			
cis-1,3-Dichloropropene	54.1500	5.0	50.0000		108	74 - 113			
Di-isopropyl ether	47.7300	5.0	50.0000		95.5	62 - 124			
Dibromochloromethane	48.5600	5.0	50.0000		97.1	78 - 114			
Dibromomethane	46.6300	5.0	50.0000		93.3	74 - 112			
Dichlorodifluoromethane	56.2000	5.0	50.0000		112	49 - 138			
Ethyl Acetate	503.410	50	500.000		101	63 - 131			
Ethyl Ether	559.830	50	500.000		112	56 - 123			
Ethyl tert-butyl ether	52.8600	5.0	50.0000		106	68 - 121			
Ethylbenzene	94.3700	5.0	100.000		94.4	82 - 112			
Freon-113	41.5500	5.0	50.0000		83.1	65 - 133			
Hexachlorobutadiene	49.8700	5.0	50.0000		99.7	76 - 131			
Isopropylbenzene	54.8300	5.0	50.0000		110	77 - 122			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S (continued)

LCS (B6L0911-BS1) - Continued

Prepared: 12/27/2016 Analyzed: 12/27/2016

m,p-Xylene	98.4900	10	100.000		98.5	80 - 116			
Methylene chloride	45.7700	5.0	50.0000		91.5	67 - 144			
MTBE	46.5600	5.0	50.0000		93.1	62 - 120			
n-Butylbenzene	60.0200	5.0	50.0000		120	78 - 134			
n-Propylbenzene	50.4300	5.0	50.0000		101	77 - 125			
Naphthalene	57.5000	5.0	50.0000		115	66 - 125			
o-Xylene	94.7100	5.0	100.000		94.7	80 - 113			
sec-Butylbenzene	56.0300	5.0	50.0000		112	79 - 124			
Styrene	51.9700	5.0	50.0000		104	82 - 117			
tert-Amyl methyl ether	46.8700	5.0	50.0000		93.7	62 - 118			
tert-Butanol	218.720	100	250.000		87.5	35 - 127			
tert-Butylbenzene	53.4900	5.0	50.0000		107	78 - 121			
Tetrachloroethene	48.7200	5.0	50.0000		97.4	75 - 124			
Toluene	96.5300	5.0	100.000		96.5	79 - 115			
trans-1,2-Dichloroethene	47.1100	5.0	50.0000		94.2	65 - 127			
trans-1,3-Dichloropropene	46.5300	5.0	50.0000		93.1	73 - 115			
Trichloroethene	49.7200	5.0	50.0000		99.4	77 - 119			
Trichlorofluoromethane	52.0700	5.0	50.0000		104	57 - 134			
Vinyl acetate	503.640	50	500.000		101	62 - 147			
Vinyl chloride	47.9600	5.0	50.0000		95.9	53 - 133			
Surrogate: 1,2-Dichloroethane-d4	49.47		50.0000		98.9	12 - 186			
Surrogate: 4-Bromofluorobenzene	52.68		50.0000		105	23 - 162			
Surrogate: Dibromofluoromethane	47.83		50.0000		95.7	23 - 179			
Surrogate: Toluene-d8	50.26		50.0000		101	26 - 164			

Matrix Spike (B6L0911-MS1)

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

1,1,1,2-Tetrachloroethane	46.2300	5.0	50.0000	ND	92.5	45 - 124			
1,1,1-Trichloroethane	49.0900	5.0	50.0000	ND	98.2	53 - 125			
1,1,2,2-Tetrachloroethane	42.6500	5.0	50.0000	ND	85.3	42 - 117			
1,1,2-Trichloroethane	42.6700	5.0	50.0000	ND	85.3	48 - 120			
1,1-Dichloroethane	47.0800	5.0	50.0000	ND	94.2	54 - 116			
1,1-Dichloroethene	43.2900	5.0	50.0000	ND	86.6	47 - 123			
1,1-Dichloropropene	48.2700	5.0	50.0000	ND	96.5	48 - 126			
1,2,3-Trichloropropane	38.8000	5.0	50.0000	ND	77.6	46 - 118			
1,2,3-Trichlorobenzene	36.9200	5.0	50.0000	ND	73.8	1 - 132			
1,2,4-Trichlorobenzene	40.9200	5.0	50.0000	ND	81.8	2 - 138			
1,2,4-Trimethylbenzene	46.0700	5.0	50.0000	ND	92.1	32 - 129			
1,2-Dibromo-3-chloropropane	44.5100	10	50.0000	ND	89.0	34 - 130			
1,2-Dibromoethane	45.1400	5.0	50.0000	ND	90.3	45 - 125			
1,2-Dichlorobenzene	41.4500	5.0	50.0000	ND	82.9	25 - 130			
1,2-Dichloroethane	42.8900	5.0	50.0000	ND	85.8	51 - 119			



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S (continued)

Matrix Spike (B6L0911-MS1) - Continued

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

1,2-Dichloropropane	43.9600	5.0	50.0000	ND	87.9	54 - 113			
1,3,5-Trimethylbenzene	44.5300	5.0	50.0000	ND	89.1	34 - 128			
1,3-Dichlorobenzene	40.4000	5.0	50.0000	ND	80.8	26 - 130			
1,3-Dichloropropane	43.7600	5.0	50.0000	ND	87.5	53 - 117			
1,4-Dichlorobenzene	43.7100	5.0	50.0000	ND	87.4	26 - 130			
2,2-Dichloropropane	49.1100	5.0	50.0000	ND	98.2	52 - 128			
2-Chlorotoluene	42.3900	5.0	50.0000	ND	84.8	34 - 126			
4-Chlorotoluene	43.4400	5.0	50.0000	ND	86.9	32 - 128			
4-Isopropyltoluene	45.7600	5.0	50.0000	ND	91.5	28 - 133			
Benzene	89.9800	5.0	100.000	ND	90.0	55 - 113			
Bromobenzene	39.0000	5.0	50.0000	ND	78.0	36 - 122			
Bromochloromethane	42.9000	5.0	50.0000	ND	85.8	50 - 118			
Bromodichloromethane	45.3800	5.0	50.0000	ND	90.8	51 - 117			
Bromoform	45.4600	5.0	50.0000	ND	90.9	39 - 130			
Bromomethane	87.2500	5.0	50.0000	ND	174	38 - 151			M1
Carbon disulfide	49.5200	5.0	50.0000	ND	99.0	38 - 126			
Carbon tetrachloride	53.0000	5.0	50.0000	ND	106	43 - 141			
Chlorobenzene	43.4300	5.0	50.0000	ND	86.9	42 - 122			
Chloroethane	54.6100	5.0	50.0000	ND	109	42 - 129			
Chloroform	44.2100	5.0	50.0000	ND	88.4	56 - 117			
Chloromethane	41.7600	5.0	50.0000	ND	83.5	35 - 127			
cis-1,2-Dichloroethene	44.7300	5.0	50.0000	ND	89.5	50 - 118			
cis-1,3-Dichloropropene	49.7900	5.0	50.0000	ND	99.6	45 - 118			
Di-isopropyl ether	44.7800	5.0	50.0000	ND	89.6	51 - 119			
Dibromochloromethane	44.5000	5.0	50.0000	ND	89.0	47 - 120			
Dibromomethane	44.3800	5.0	50.0000	ND	88.8	48 - 118			
Dichlorodifluoromethane	55.5000	5.0	50.0000	ND	111	43 - 126			
Ethyl Acetate	465.860	50	500.000	ND	93.2	22 - 145			
Ethyl Ether	527.590	50	500.000	ND	106	49 - 114			
Ethyl tert-butyl ether	49.9200	5.0	50.0000	ND	99.8	54 - 120			
Ethylbenzene	84.4800	5.0	100.000	ND	84.5	42 - 123			
Freon-113	47.1700	5.0	50.0000	ND	94.3	45 - 132			
Hexachlorobutadiene	33.1300	5.0	50.0000	ND	66.3	4 - 135			
Isopropylbenzene	49.1000	5.0	50.0000	ND	98.2	40 - 127			
m,p-Xylene	88.0100	10	100.000	ND	88.0	39 - 127			
Methylene chloride	42.9900	5.0	50.0000	ND	86.0	51 - 140			
MTBE	43.7000	5.0	50.0000	ND	87.4	52 - 120			
n-Butylbenzene	45.9600	5.0	50.0000	ND	91.9	19 - 141			
n-Propylbenzene	43.9800	5.0	50.0000	ND	88.0	34 - 131			
Naphthalene	45.0200	5.0	50.0000	ND	90.0	11 - 136			
o-Xylene	84.3600	5.0	100.000	ND	84.4	40 - 124			
sec-Butylbenzene	46.2000	5.0	50.0000	ND	92.4	29 - 132			



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S (continued)

Matrix Spike (B6L0911-MS1) - Continued

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

Styrene	45.0900	5.0	50.0000	ND	90.2	36 - 130			
tert-Amyl methyl ether	44.3500	5.0	50.0000	ND	88.7	49 - 119			
tert-Butanol	210.340	100	250.000	ND	84.1	29 - 138			
tert-Butylbenzene	45.7400	5.0	50.0000	ND	91.5	34 - 129			
Tetrachloroethene	43.5100	5.0	50.0000	ND	87.0	37 - 132			
Toluene	89.7800	5.0	100.000	ND	89.8	48 - 122			
trans-1,2-Dichloroethene	45.0700	5.0	50.0000	ND	90.1	51 - 123			
trans-1,3-Dichloropropene	42.6300	5.0	50.0000	ND	85.3	38 - 125			
Trichloroethene	45.5900	5.0	50.0000	ND	91.2	41 - 136			
Trichlorofluoromethane	52.3100	5.0	50.0000	ND	105	44 - 126			
Vinyl acetate	413.780	50	500.000	ND	82.8	0 - 154			
Vinyl chloride	47.1700	5.0	50.0000	ND	94.3	47 - 122			
Surrogate: 1,2-Dichloroethane-d4	52.56		50.0000		105	12 - 186			
Surrogate: 4-Bromofluorobenzene	51.50		50.0000		103	23 - 162			
Surrogate: Dibromofluoromethane	49.59		50.0000		99.2	23 - 179			
Surrogate: Toluene-d8	52.00		50.0000		104	26 - 164			

Matrix Spike Dup (B6L0911-MSD1)

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

1,1,1,2-Tetrachloroethane	58.0500	5.0	50.0000	ND	116	45 - 124	22.7	20	R
1,1,1-Trichloroethane	64.9600	5.0	50.0000	ND	130	53 - 125	27.8	20	M1, R
1,1,2,2-Tetrachloroethane	61.8600	5.0	50.0000	ND	124	42 - 117	36.8	20	M1, R
1,1,2-Trichloroethane	69.4800	5.0	50.0000	ND	139	48 - 120	47.8	20	M1, R
1,1-Dichloroethane	62.4400	5.0	50.0000	ND	125	54 - 116	28.0	20	M1, R
1,1-Dichloroethene	63.1600	5.0	50.0000	ND	126	47 - 123	37.3	20	M1, R
1,1-Dichloropropene	62.5800	5.0	50.0000	ND	125	48 - 126	25.8	20	R
1,2,3-Trichloropropane	59.1900	5.0	50.0000	ND	118	46 - 118	41.6	20	M1, R
1,2,3-Trichlorobenzene	47.5400	5.0	50.0000	ND	95.1	1 - 132	25.1	20	R
1,2,4-Trichlorobenzene	47.7100	5.0	50.0000	ND	95.4	2 - 138	15.3	20	
1,2,4-Trimethylbenzene	48.6300	5.0	50.0000	ND	97.3	32 - 129	5.41	20	
1,2-Dibromo-3-chloropropane	79.8900	10	50.0000	ND	160	34 - 130	56.9	20	M1, R
1,2-Dibromoethane	75.3100	5.0	50.0000	ND	151	45 - 125	50.1	20	M1, R
1,2-Dichlorobenzene	48.8100	5.0	50.0000	ND	97.6	25 - 130	16.3	20	
1,2-Dichloroethane	67.1600	5.0	50.0000	ND	134	51 - 119	44.1	20	M1, R
1,2-Dichloropropane	60.6500	5.0	50.0000	ND	121	54 - 113	31.9	20	M1, R
1,3,5-Trimethylbenzene	47.2600	5.0	50.0000	ND	94.5	34 - 128	5.95	20	
1,3-Dichlorobenzene	44.4200	5.0	50.0000	ND	88.8	26 - 130	9.48	20	
1,3-Dichloropropane	62.0400	5.0	50.0000	ND	124	53 - 117	34.6	20	M1, R
1,4-Dichlorobenzene	47.5300	5.0	50.0000	ND	95.1	26 - 130	8.37	20	
2,2-Dichloropropane	63.6500	5.0	50.0000	ND	127	52 - 128	25.8	20	R
2-Chlorotoluene	45.5700	5.0	50.0000	ND	91.1	34 - 126	7.23	20	
4-Chlorotoluene	46.6400	5.0	50.0000	ND	93.3	32 - 128	7.10	20	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/05/2017

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S (continued)

Matrix Spike Dup (B6L0911-MSD1) - Continued

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

4-Isopropyltoluene	48.9400	5.0	50.0000	ND	97.9	28 - 133	6.72	20	
Benzene	118.370	5.0	100.000	ND	118	55 - 113	27.3	20	M1, R
Bromobenzene	44.3300	5.0	50.0000	ND	88.7	36 - 122	12.8	20	
Bromochloromethane	63.7300	5.0	50.0000	ND	127	50 - 118	39.1	20	M1, R
Bromodichloromethane	62.1500	5.0	50.0000	ND	124	51 - 117	31.2	20	M1, R
Bromoform	71.5300	5.0	50.0000	ND	143	39 - 130	44.6	20	M1, R
Bromomethane	100.800	5.0	50.0000	ND	202	38 - 151	14.4	20	M1
Carbon disulfide	64.9200	5.0	50.0000	ND	130	38 - 126	26.9	20	M1, R
Carbon tetrachloride	69.6700	5.0	50.0000	ND	139	43 - 141	27.2	20	R
Chlorobenzene	51.6700	5.0	50.0000	ND	103	42 - 122	17.3	20	
Chloroethane	63.7900	5.0	50.0000	ND	128	42 - 129	15.5	20	
Chloroform	59.7700	5.0	50.0000	ND	120	56 - 117	29.9	20	M1, R
Chloromethane	55.7500	5.0	50.0000	ND	112	35 - 127	28.7	20	R
cis-1,2-Dichloroethene	60.5800	5.0	50.0000	ND	121	50 - 118	30.1	20	M1, R
cis-1,3-Dichloropropene	72.4000	5.0	50.0000	ND	145	45 - 118	37.0	20	M1, R
Di-isopropyl ether	62.5800	5.0	50.0000	ND	125	51 - 119	33.2	20	M1, R
Dibromochloromethane	60.7300	5.0	50.0000	ND	121	47 - 120	30.8	20	M1, R
Dibromomethane	69.0100	5.0	50.0000	ND	138	48 - 118	43.4	20	M1, R
Dichlorodifluoromethane	72.6400	5.0	50.0000	ND	145	43 - 126	26.8	20	M1, R
Ethyl Acetate	955.680	50	500.000	ND	191	22 - 145	68.9	20	M1, R
Ethyl Ether	872.350	50	500.000	ND	174	49 - 114	49.3	20	M1, R
Ethyl tert-butyl ether	73.0800	5.0	50.0000	ND	146	54 - 120	37.7	20	M1, R
Ethylbenzene	98.0800	5.0	100.000	ND	98.1	42 - 123	14.9	20	
Freon-113	65.6500	5.0	50.0000	ND	131	45 - 132	32.8	20	R
Hexachlorobutadiene	35.1700	5.0	50.0000	ND	70.3	4 - 135	5.97	20	
Isopropylbenzene	51.7900	5.0	50.0000	ND	104	40 - 127	5.33	20	
m,p-Xylene	100.990	10	100.000	ND	101	39 - 127	13.7	20	
Methylene chloride	57.7900	5.0	50.0000	ND	116	51 - 140	29.4	20	R
MTBE	71.2000	5.0	50.0000	ND	142	52 - 120	47.9	20	M1, R
n-Butylbenzene	48.9400	5.0	50.0000	ND	97.9	19 - 141	6.28	20	
n-Propylbenzene	46.4600	5.0	50.0000	ND	92.9	34 - 131	5.48	20	
Naphthalene	68.6700	5.0	50.0000	ND	137	11 - 136	41.6	20	M1, R
o-Xylene	98.9800	5.0	100.000	ND	99.0	40 - 124	15.9	20	
sec-Butylbenzene	48.7600	5.0	50.0000	ND	97.5	29 - 132	5.39	20	
Styrene	54.5200	5.0	50.0000	ND	109	36 - 130	18.9	20	
tert-Amyl methyl ether	68.9200	5.0	50.0000	ND	138	49 - 119	43.4	20	M1, R
tert-Butanol	483.950	100	250.000	ND	194	29 - 138	78.8	20	M1, R
tert-Butylbenzene	48.6000	5.0	50.0000	ND	97.2	34 - 129	6.06	20	
Tetrachloroethene	51.3100	5.0	50.0000	ND	103	37 - 132	16.5	20	
Toluene	118.690	5.0	100.000	ND	119	48 - 122	27.7	20	R
trans-1,2-Dichloroethene	58.4100	5.0	50.0000	ND	117	51 - 123	25.8	20	R
trans-1,3-Dichloropropene	65.7400	5.0	50.0000	ND	131	38 - 125	42.7	20	M1, R



Certificate of Analysis

TRC

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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L0911 - MSVOA_S (continued)

Matrix Spike Dup (B6L0911-MSD1) - Continued

Source: 1604833-01

Prepared: 12/27/2016 Analyzed: 12/27/2016

Trichloroethene	59.0400	5.0	50.0000	ND	118	41 - 136	25.7	20	R
Trichlorofluoromethane	65.6500	5.0	50.0000	ND	131	44 - 126	22.6	20	M1, R
Vinyl acetate	630.490	50	500.000	ND	126	0 - 154	41.5	20	R
Vinyl chloride	65.0300	5.0	50.0000	ND	130	47 - 122	31.8	20	R, M1
Surrogate: 1,2-Dichloroethane-d4	71.40		50.0000		143	12 - 186			
Surrogate: 4-Bromofluorobenzene	57.04		50.0000		114	23 - 162			
Surrogate: Dibromofluoromethane	54.81		50.0000		110	23 - 179			
Surrogate: Toluene-d8	54.28		50.0000		109	26 - 164			



Certificate of Analysis

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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/05/2017

Notes and Definitions

S4	Surrogate was diluted out.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 2 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATL COC Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VDA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C
		4. SEALED	<input type="checkbox"/>

Company: TRC		Address: 9685 RESEARCH DRIVE		Tel:	
Attn: JOHN NORDENSTAM		City: IRVINE		State: CA Zip: 92618 Fax:	
Company: TRC		Address: 9685 RESEARCH DRIVE		Email:	
City: IRVINE		State: CA Zip: 92618		SEND INVOICE TO: <input checked="" type="checkbox"/> Same as SEND REPORT TO	

Project Name: ROOSEVELT HS		Quote No: E161131		Special Instructions/Comments:	
Project No.: 265642		PO #: 100816			
Sampler: R SURRENCY					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1204849-11	AA2684-6 e 2.5		12-21-16	0905
2	1204849-12	AA2684-6 e 3.5			0910
3	1204849-13	AA2684-5 e 0.5			0915
4	1204849-14	AA2684-5 e 2.5			0920
5	1204849-15	AA2684-5 e 3.5			0922
6	1204849-16	AA2543-8 e 0.5			0925
7	1204849-17	AA2543-8 e 2.5			0930
8	1204849-18	AA2543-8 e 3.5			0932
9	1204849-19	AA2543-7 e 0.5			0935
10	1204849-20	AA2543-7 e 2.5			0940

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.		Signature		Date: 12/21/16	
Submitter Print Name		Signature		Date: 12/21/16	
Relinquished by: (Signature and Printed Name)		Relinquished by: (Signature and Printed Name)		Relinquished by: (Signature and Printed Name)	
Date: 12/21/16		Date: 12/21/16		Date: 12/21/16	
Time: 1330		Time: 1330		Time: 1330	

CHAIN OF CUSTODY RECORD

Page 3 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VDA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C
<input type="checkbox"/>	<input type="checkbox"/>	4. SEALED	<input type="checkbox"/>

Company: TRC		Address: 9685 RESEARCH DRIVE		Tel:	
Attn: JOHN NORDENSTAM		City: IRVINE		State: CA Zip: 92612	
Company: TRC		Address:		Email:	
Address: 9685 RESEARCH DRIVE		City:		State: CA Zip: 92612	
City: IRVINE		State: CA		Zip: 92612	
SEND REPORT TO:		SEND INVOICE TO:		same as SEND REPORT TO	

Project Name: ROOSEVELT HS		Quote No: E161131		Special Instructions/Comments:	
Project No: 265642		PO #: 100816			
Sampler: R SURRENY					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	1604 849 - 21	AA 2543-7 e 3.5		12-21-16	0942
2	1604 849 - 22	AA 2038-9 e 0.5			0953
3	1604 849 - 23	AA 2038-9 e 2.5			0955
4	1604 849 - 24	AA 2038-9 e 3.5			0957
5	1604 849 - 25	AA 2038-8 e 0.5			1000
6	1604 849 - 26	AA 2038-8 e 2.5			1002
7	1604 849 - 27	AA 2038-8 e 3.5			1004
8	1604 849 - 28	AA 2038-7 e 0.5			1008
9	1604 849 - 29	AA 2038-7 e 2.5			1010
10	1604 849 - 30	AA 2038-7 e 3.5			1012

1. Samples receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM. 2. Samples received after 3:00 PM. 3. The following turnaround time conditions apply: TAT = 0: 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3: 20% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) 4. Weekend, holiday, after-hours work - ask for quote. 5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TAT's will incur a surcharge 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. 9. Storage and Report Fees: - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat and report; \$35 per reprocessed EDD. 10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	
---	--

Relinquished by: (Signature and Printed Name)	Date: 12/21/16	Time: 1330	Received by: (Signature and Printed Name)	Date: 12/21/16	Time: 1335
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

CHAIN OF CUSTODY RECORD

Page 5 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VIA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:	<input type="checkbox"/> 7. COOLER TEMP, deg C:	3. CONTAINER INTACT	<input type="checkbox"/> 8. PRESERVED
		4. SEALED	<input type="checkbox"/> 9. COOLER TEMP, deg C:

Company: TRC		Address: 9685 RESEARCH DRIVE		Tel:	
City: IRVINE		State: CA		Zip: 92618	
Attn: JOHN NORDENSTAM		Email:		SEND INVOICE TO: X same as SEND REPORT TO	
Company: TRC		Address:		State: Zip:	
City: IRVINE		State: CA		Zip: 92618	

Project Name: ROSEVELT HS		Quote No: F161131		Special Instructions/Comments:	
Project No: 265642		PO #: 100816			
Sampler: R SURGENCY					
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	100816	AA 2249-5 e 2.5	12-21-16	1142	
2		AA 2249-5 e 3.5		1144	
3		EB-23		1205	
4		IDW SOIL		1220	
5					
6					
7					
8					
9					
10					

Project Samples		Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC	
1. Sample receiving hours: 7:30 AM to 7:00 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM		8260 / 624 (Volatiles)		8015 (GRO)		8015 (PRO) + CRO		8270 (Semi-volatiles)	
2. Samples Submitted AFTER 3:00 PM, are considered received the following business day at 8:00 AM.		6010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
3. The following turnaround time conditions apply:		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
TAT = 1 : 50% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
TAT = 2 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
TAT = 3 : 200% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
TAT = 4 : 200% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
4. Weekend, holiday, after-hours work - ask for quote.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
7. Electronic records maintained for five (5) years from report date.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
8. Hard copy reports will be disposed of after 45 calendar days from report date.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
9. Storage and Report Fees:		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
- Liquid and solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage is requested.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reproprocessed EDO.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.		8010 / 7000 (Title 22 Metals)		8082 (PCBs)		8081 (Organochlorine Pesticides)		8081 (Organochlorine Pesticides)	
Relinquished by: (Signature and Printed Name) <u>John Nordenstam</u>		Date: <u>12/21/16</u>		Time: <u>1330</u>		Received by: (Signature and Printed Name) <u>John Nordenstam</u>		Date: <u>12/21/16</u>	
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name)		Date:	
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name)		Date:	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

Date: 12/21/16 Time: 1330

Carmen Aguila

From: Rachelle Arada
Sent: Thursday, December 22, 2016 3:14 PM
To: Carmen Aguila; Fernando Diwa
Cc: customer.relations@atlglobal.com
Subject: FW: LAUSD Roosevelt HS - Compositing Instructions for IDW Soil Sample
Attachments: DOC122216.pdf

Importance: High

Please log accordingly. Thanks.

From: Nordenstam, John [<mailto:jnordenstam@trcsolutions.com>]
Sent: Thursday, December 22, 2016 3:08 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Compositing Instructions for IDW Soil Sample
Importance: High

Rachelle – Here are additional instructions for the IDW Soil Sample from LAUSD Roosevelt HS. Please analyze only one of the TerraCore sets for TPH-G and VOCs; hold all other analyses on the extra TerraCores. Composite all three sample jars for this sample (Composite 3:1) and analyze the composite sample for all other analyses (see attachment). Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

Company: TRC		Address: 9685 RESEARCH DRIVE		Tel:	
City: IRVINE		State: CA		Zip: 92618	
Fax:					
SEND REPORT TO:		SEND INVOICE TO:		<input checked="" type="checkbox"/> same as SEND REPORT TO	
Attn: JOHN NORDENSTAM		Attn:		Email:	
Company: TRC		Company:			
Address: 9685 RESEARCH DRIVE		Address:			
City: IRVINE		City:		State:	
Zip: 92618		Zip: 92618		Zip:	

Project Name:		Quote No:		Special Instructions/Comments:			
Project No.:		PO #:					
Sampler:		Lab No.					
		Sample ID / Location					
		Sample Description					
		Date					
		Time					
1	ROOSEVELT HS	AA-249-50 2.5	12-21-16	1142			
2	265642	AA-249-50 3.5		1144			
3	R SURRENCY	EB-23		1205			
4		IDW SOIL		1220			
5							
6							
7							
8							
9							
10							

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature

Submitter Print Name

Signature

samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for h/v (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
 • Liquid & solid samples: Complimentary storage for forty-h v (45) calendar days from receipt of samples, \$2/sample/month if extended storage or hold is requested;
 • Extended storage: \$20/sample/week if extended storage is requested;
 • Complimentary storage for ten (10) calendar days from receipt of samples, \$207/sample/week if extended storage is requested;
 • Hard copy and regenerated reports/EODS: \$17.50 per hard copy request; \$50.00 per regenerated/reformat ed report;
 \$35 per processed EDO.
10. Rush TOLP/STLC samples, add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted After 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply: PAY IF RECEIVED BY 9:00 AM
TAT = 1: 100% SURCHARGE NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% SURCHARGE NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 3: 30% SURCHARGE 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 10% SURCHARGE 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)
Weekend, holiday, after-hours work - ask for quote.
Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab ... ask for quote.
Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air

Page

inquired by: (Signature and Printed Name)	Date: 12/21/16	Time: 1330	Received by: (Signature and Printed Name)	Date:	Time:
inquired by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
inquired by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

Carmen Aguila

From: Rachelle Arada
Sent: Tuesday, December 27, 2016 4:25 PM
To: Carmen Aguila; Fernando Diwa
Cc: customer.relations@atlglobal.com
Subject: FW: LAUSD Roosevelt HS - Duplicates for Soil Samples Collected 12/21/16
Attachments: DOC122716.pdf

FYI. I added these in Element. Thanks.

From: Nordenstam, John [<mailto:jnordenstam@trcsolutions.com>]
Sent: Tuesday, December 27, 2016 4:12 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Duplicates for Soil Samples Collected 12/21/16

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on December 21, 2016, at LAUSD Roosevelt High School (see attachment):

- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic using EPA Method 6010B:
 - [AA2684-6@0.5](#) - Arsenic
 - [AA2543-7@2.5](#) – Arsenic
 - [AA2038-7@3.5](#) – Arsenic
 - [AA2249-5@0.5](#) – Arsenic

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com



January 30, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604849
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on December 21, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA2543-8 @ 0.5	1604849-16	Soil	12/21/16 9:25	12/21/16 13:30
AA2543-8 @ 2.5	1604849-17	Soil	12/21/16 9:30	12/21/16 13:30
AA2543-7 @ 0.5	1604849-19	Soil	12/21/16 9:35	12/21/16 13:30
AA2543-7 @ 2.5	1604849-20	Soil	12/21/16 9:40	12/21/16 13:30
AA2038-9 @ 0.5	1604849-22	Soil	12/21/16 9:53	12/21/16 13:30
AA2038-9 @ 2.5	1604849-23	Soil	12/21/16 9:55	12/21/16 13:30
AA2038-8 @ 0.5	1604849-25	Soil	12/21/16 10:00	12/21/16 13:30
AA2038-8 @ 2.5	1604849-26	Soil	12/21/16 10:02	12/21/16 13:30
AA2038-7 @ 0.5	1604849-28	Soil	12/21/16 10:08	12/21/16 13:30
AA2038-7 @ 2.5	1604849-29	Soil	12/21/16 10:10	12/21/16 13:30

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AA2543-8 @ 0.5
Lab ID: 1604849-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	39	1.0	0.11	1	B6L1069	12/30/2016	12/30/16 15:27	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AA2543-8 @ 2.5

Lab ID: 1604849-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.4	1.0	0.11	1	B6L1069	12/30/2016	12/30/16 16:14	



Certificate of Analysis

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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AA2543-7 @ 0.5

Lab ID: 1604849-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	29	1.0	0.11	1	B6L1069	12/30/2016	12/30/16 15:30	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AA2543-7 @ 2.5

Lab ID: 1604849-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.0	1.0	0.11	1	B6L1070	12/30/2016	12/30/16 15:34	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AA2038-9 @ 0.5

Lab ID: 1604849-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	150	1.0	0.11	1	B6L1070	12/30/2016	12/30/16 15:41	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AA2038-9 @ 2.5

Lab ID: 1604849-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	0.11	1	B6L1070	12/30/2016	12/30/16 15:42	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AA2038-8 @ 0.5
Lab ID: 1604849-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	59	1.0	0.11	1	B6L1070	12/30/2016	12/30/16 15:45	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Client Sample ID AA2038-8 @ 2.5

Lab ID: 1604849-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B6L1070	12/30/2016	12/30/16 15:46	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AA2038-7 @ 0.5

Lab ID: 1604849-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	40	1.0	0.11	1	B6L1070	12/30/2016	12/30/16 15:48	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Client Sample ID AA2038-7 @ 2.5

Lab ID: 1604849-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	37	1.0	0.11	1	B6L1070	12/30/2016	12/30/16 15:49	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B6L1069 - EPA 3050B_S

Blank (B6L1069-BLK1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6L1069-BS1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	45.3718	1.0	50.0000		90.7	80 - 120			
Lead	46.2843	1.0	50.0000		92.6	80 - 120			

Duplicate (B6L1069-DUP1)

Source: 1604849-01

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	2.10437	1.0		1.74227	NR		18.8	20	
Lead	2.99196	1.0		2.49079	NR		18.3	20	

Matrix Spike (B6L1069-MS1)

Source: 1604849-01

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	91.0358	1.0	125.000	1.74227	71.4	59 - 103			
Lead	90.0068	1.0	125.000	2.49079	70.0	34 - 129			

Matrix Spike Dup (B6L1069-MSD1)

Source: 1604849-01

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	87.9210	1.0	125.000	1.74227	68.9	59 - 103	3.48	20	
Lead	84.5472	1.0	125.000	2.49079	65.6	34 - 129	6.26	20	



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 01/30/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B6L1070 - EPA 3050B_S

Blank (B6L1070-BLK1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				

LCS (B6L1070-BS1)

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	45.7817	1.0	50.0000		91.6	80 - 120			
Lead	47.1998	1.0	50.0000		94.4	80 - 120			

Duplicate (B6L1070-DUP1)

Source: 1604849-20

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	1.59535	1.0		1.45216	NR		9.40	20	
Lead	3.54879	1.0		4.01796	NR		12.4	20	

Matrix Spike (B6L1070-MS1)

Source: 1604849-20

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	101.213	1.0	125.000	1.45216	79.8	59 - 103			
Lead	101.264	1.0	125.000	4.01796	77.8	34 - 129			

Matrix Spike Dup (B6L1070-MSD1)

Source: 1604849-20

Prepared: 12/30/2016 Analyzed: 12/30/2016

Arsenic	96.5750	1.0	125.000	1.45216	76.1	59 - 103	4.69	20	
Lead	98.6066	1.0	125.000	4.01796	75.7	34 - 129	2.66	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 01/30/2017

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Diane Galvan

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, January 23, 2017 5:34 PM
To: Diane Galvan
Cc: Rachelle Arada; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Diane – you are correct; there is not a sample labeled P16c-3.5 My mistake – sorry for the confusion.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Diane Galvan [mailto:Diane@atlglobal.com]
Sent: Monday, January 23, 2017 1:43 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: Rachelle Arada <Rachelle@atlglobal.com>; customer.relations@atlglobal.com
Subject: RE: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Hi John,

I have received your request but don't see sample labeled P16c-3.5 under ATL WO# 1604231 in our system.

Thanks,

Diane

From: Nordenstam, John [mailto:jnordenstam@trcsolutions.com]
Sent: Monday, January 23, 2017 11:45 AM
To: Diane Galvan
Subject: FW: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Diane – I understand that Rachelle is out of the office. Please see email below for request for additional analyses of samples from LAUSD Roosevelt HS. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John

Sent: Monday, January 23, 2017 11:21 AM

To: Rachelle Arada <Rachelle@atlglobal.com>

Cc: Edric Caballero (edric@atlglobal.com) <edric@atlglobal.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>

Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for As and Pb

Rachelle – we need to conduct additional analyses for arsenic and lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 35 samples to be analyzed for arsenic and/or lead. Refer to the summary of sample IDs and corresponding lab report numbers presented below. Please include TRC PO # 100816 on your invoice.

Area 3 (Lab report #1604231)

- B-13a-2.5 for As and Pb
- B-13b-2.5 for As
- B-13c-2.5 for Pb
- B-13d-0.5 for As
- B-13d-2.5 for As
- B-14a-2.5 for As
- B-14b-2.5 for As
- B-15a-2.5 for As
- B-15b-0.5 for Pb
- B-15b-2.5 for Pb
- B-16a-2.5 for As
- C-13c-2.5 for Pb
- C-17b-2.5 for Pb

Area 5 (Lab report #1604222)

- AUD-3a-2.5 for Pb
- AUD-3b-2.5 for Pb
- AUD-3c-2.5 for Pb
- AUD-4c-2.5 for Pb
- AUD-5b-2.5 for Pb
- AUD-6b-2.5 for Pb

Area 6

- CR1-2d-2.5 for Pb (Lab report #1604246)
- CR1-4b-2.5 for Pb (Lab report #1604246)
- P16c-2.5 for Pb (Lab report #1604231)
- P16c-3.5 for Pb (Lab report #1604231)
- AA2038-7-0.5 for Pb (Lab report # 1604849)
- AA2038-7-2.5 for Pb (Lab report # 1604849)
- AA2038-8-0.5 for Pb (Lab report # 1604849)
- AA2038-8-2.5 for Pb (Lab report # 1604849)
- AA2038-9-0.5 for Pb (Lab report # 1604849)
- AA2038-9-2.5 for Pb (Lab report # 1604849)
- AA2543-7-0.5 for Pb (Lab report # 1604849)
- AA2543-7-2.5 for Pb (Lab report # 1604849)
- AA2543-8-0.5 for Pb (Lab report # 1604849)
- AA2543-8-2.5 for Pb (Lab report # 1604849)

Area 9 (Lab report #1604222)

- X-17b-2.5 As
- Y-17c-2.5 As

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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February 08, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604849
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on December 21, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram below it.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 02/08/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA2038-9 @ 0.5	1604849-22	Soil	12/21/16 9:53	12/21/16 13:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 02/08/2017

Client Sample ID AA2038-9 @ 0.5
Lab ID: 1604849-22

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.1	1.0	0.057	20	B7B0164	02/06/2017	02/06/17 17:07	D1



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 02/08/2017

QUALITY CONTROL SECTION

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7B0164 - STLC_S Extraction										
Blank (B7B0164-BLK1)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	ND	1.0	0.057			NR				
Blank (B7B0164-BLK2)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	ND	1.0	0.057			NR				
LCS (B7B0164-BS1)					Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	2.05504			2.00000		103	80 - 120			
Duplicate (B7B0164-DUP1)					Source: 1604231-02 Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	5.45957	1.0	0.057		6.75438	NR		21.2	20	R
Duplicate (B7B0164-DUP2)					Source: 1700454-03 Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	4.88367	1.0	0.057		4.74528	NR		2.87	20	
Matrix Spike (B7B0164-MS1)					Source: 1604231-02 Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	7.56159			2.50000	6.75438	32.3	44 - 130			M1
Matrix Spike (B7B0164-MS2)					Source: 1700454-03 Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	7.09335			2.50000	4.74528	93.9	44 - 130			
Matrix Spike Dup (B7B0164-MSD1)					Source: 1604231-02 Prepared: 2/6/2017 Analyzed: 2/6/2017					
Lead	7.64388			2.50000	6.75438	35.6	44 - 130	1.08	20	M1



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 02/08/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, February 01, 2017 2:09 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC Extraction for Lead

Rachelle – we need to conduct additional analyses for lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 3 samples to be analyzed for STLC extraction for lead:

Area 3 (Lab report #1604231)

- B-13a-2.5
- B-15b-0.5

Area 6 (Lab report # 1604849)

- AA2038-9-0.5

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



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February 17, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604849
Client Reference : ROOSEVELT HS, 265642

Enclosed are the results for sample(s) received on December 21, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is placed above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA2038-9 @ 0.5	1604849-22	Soil	12/21/16 9:53	12/21/16 13:30

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

Client Sample ID AA2038-9 @ 0.5
Lab ID: 1604849-22

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.040	0.25	0.014	5	B7B0422	02/15/2017	02/15/17 14:49	J



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Project Number : ROOSEVELT HS, 265642
Report To : John Nordenstam
Reported : 02/17/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7B0422 - EPA 3010A_S										
Blank (B7B0422-BLK1)					Prepared: 2/15/2017 Analyzed: 2/15/2017					
Lead	ND	0.050	0.0028		NR					
LCS (B7B0422-BS1)					Prepared: 2/15/2017 Analyzed: 2/15/2017					
Lead	0.961200	0.050	0.0028	1.00000		96.1	80 - 120			
Duplicate (B7B0422-DUP1)					Source: 1604231-02 Prepared: 2/15/2017 Analyzed: 2/15/2017					
Lead	0.045264	0.25	0.014		0.049816	NR		9.58	20	J
Matrix Spike (B7B0422-MS1)					Source: 1604231-02 Prepared: 2/15/2017 Analyzed: 2/15/2017					
Lead	2.44560	0.25	0.014	2.50000	0.049816	95.8	78 - 109			
Matrix Spike Dup (B7B0422-MSD1)					Source: 1604231-02 Prepared: 2/15/2017 Analyzed: 2/15/2017					
Lead	2.39376	0.25	0.014	2.50000	0.049816	93.8	78 - 109	2.14	20	



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Project Number : ROOSEVELT HS, 265642

Report To : John Nordenstam

Reported : 02/17/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Thursday, February 09, 2017 10:54 AM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for TCLP Extraction for Lead

Rachelle – we need to conduct additional analyses for lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 2 samples to be analyzed for TCLP extraction for lead:

Area 3 (Lab report #1604231)

- B-13a-2.5

Area 6 (Lab report # 1604849)

- AA2038-9-0.5

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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From: Nordenstam, John
Sent: Wednesday, February 01, 2017 2:09 PM
To: Rachelle Arada <Rachelle@atlglobal.com>
Cc: Edric Caballero (edric@atlglobal.com) <edric@atlglobal.com>; Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: LAUSD Roosevelt HS - Additional Laboratory Analyses of Soil Samples for STLC Extraction for Lead

Rachelle – we need to conduct additional analyses for lead on the soil samples collected from LAUSD Roosevelt HS in Los Angeles. There are a total of 3 samples to be analyzed for STLC extraction for lead:

Area 3 (Lab report #1604231)

- B-13a-2.5
- B-15b-0.5

Area 6 (Lab report # 1604849)

- AA2038-9-0.5

Please include TRC PO # 100816 on your invoice. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



April 03, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701285
Client Reference : Roosevelt HS, 265642 / TA02

Enclosed are the results for sample(s) received on March 25, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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TRC

9685 Research Drive

Irvine , CA 92618

Project Number : Roosevelt HS, 265642 / TA02

Report To : John Nordenstam

Reported : 04/03/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H-2-3.5	1701285-01	Soil	3/25/17 8:00	3/25/17 16:00
H-2b1-0.5	1701285-02	Soil	3/25/17 8:05	3/25/17 16:00
H-2b1-2.5	1701285-03	Soil	3/25/17 8:10	3/25/17 16:00
H-2b1-3.5	1701285-04	Soil	3/25/17 8:15	3/25/17 16:00
H-2c1-0.5	1701285-05	Soil	3/25/17 8:20	3/25/17 16:00
H-2c1-2.5	1701285-06	Soil	3/25/17 8:25	3/25/17 16:00
H-2c1-3.5	1701285-07	Soil	3/25/17 8:30	3/25/17 16:00
H-2d1-0.5	1701285-08	Soil	3/25/17 8:35	3/25/17 16:00
H-2d1-2.5	1701285-09	Soil	3/25/17 8:40	3/25/17 16:00
H-2d1-3.5	1701285-10	Soil	3/25/17 8:45	3/25/17 16:00
PE-3-3.5	1701285-11	Soil	3/25/17 9:00	3/25/17 16:00
PE-3b1-0.5	1701285-12	Soil	3/25/17 9:10	3/25/17 16:00
PE-3b1-2.5	1701285-13	Soil	3/25/17 9:15	3/25/17 16:00
PE-3b1-3.5	1701285-14	Soil	3/25/17 9:20	3/25/17 16:00
PE-3c1-0.5	1701285-15	Soil	3/25/17 9:25	3/25/17 16:00
PE-3c1-2.5	1701285-16	Soil	3/25/17 9:30	3/25/17 16:00
PE-3c1-3.5	1701285-17	Soil	3/25/17 9:35	3/25/17 16:00
C-18-0.5	1701285-18	Soil	3/25/17 10:21	3/25/17 16:00
C-18-2.5	1701285-19	Soil	3/25/17 10:25	3/25/17 16:00
C-18a-0.5	1701285-20	Soil	3/25/17 10:30	3/25/17 16:00
C-18a-2.5	1701285-21	Soil	3/25/17 10:35	3/25/17 16:00
C-18c-0.5	1701285-22	Soil	3/25/17 10:15	3/25/17 16:00
C-18c-2.5	1701285-23	Soil	3/25/17 10:20	3/25/17 16:00
B-16a-3.5	1701285-24	Soil	3/25/17 11:00	3/25/17 16:00
B-13a-3.5	1701285-25	Soil	3/25/17 11:10	3/25/17 16:00
X-14-3.5	1701285-26	Soil	3/25/17 12:00	3/25/17 16:00
W-14-3.5	1701285-27	Soil	3/25/17 12:10	3/25/17 16:00
X-18-0.5	1701285-28	Soil	3/25/17 12:15	3/25/17 16:00
X-18-2.5	1701285-29	Soil	3/25/17 12:20	3/25/17 16:00
X-18a-0.5	1701285-30	Soil	3/25/17 12:25	3/25/17 16:00
X-18a-2.5	1701285-31	Soil	3/25/17 12:30	3/25/17 16:00
X-18c-0.5	1701285-32	Soil	3/25/17 12:35	3/25/17 16:00
X-18c-2.5	1701285-33	Soil	3/25/17 12:40	3/25/17 16:00
Z-17-0.5	1701285-34	Soil	3/25/17 12:42	3/25/17 16:00
Z-17-2.5	1701285-35	Soil	3/25/17 12:45	3/25/17 16:00
Z-17b-0.5	1701285-36	Soil	3/25/17 12:47	3/25/17 16:00
Z-17b-2.5	1701285-37	Soil	3/25/17 12:50	3/25/17 16:00



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Z-17d-0.5	1701285-38	Soil	3/25/17 12:52	3/25/17 16:00
Z-17d-2.5	1701285-39	Soil	3/25/17 12:55	3/25/17 16:00
CR1-5d1-0.5	1701285-40	Soil	3/25/17 12:57	3/25/17 16:00
CR1-5d1-2.5	1701285-41	Soil	3/25/17 13:00	3/25/17 16:00
P-15-3.5	1701285-42	Soil	3/25/17 13:45	3/25/17 16:00
Q15a-4.5	1701285-43	Soil	3/25/17 14:05	3/25/17 16:00
Q15d-3.5	1701285-44	Soil	3/25/17 14:10	3/25/17 16:00
Q15d-4.5	1701285-45	Soil	3/25/17 14:15	3/25/17 16:00
P15d1-0.5	1701285-46	Soil	3/25/17 14:20	3/25/17 16:00
P15d1-2.5	1701285-47	Soil	3/25/17 14:25	3/25/17 16:00
P15d1-3.5	1701285-48	Soil	3/25/17 14:30	3/25/17 16:00
P15d1-4.5	1701285-49	Soil	3/25/17 14:40	3/25/17 16:00
EB-24-3/25/17	1701285-50	Water	3/25/17 14:40	3/25/17 16:00
H-2d1-3.5 DUP	1701285-51	Soil	3/25/17 8:45	3/25/17 16:00
C-18a-0.5 DUP	1701285-52	Soil	3/25/17 10:30	3/25/17 16:00
B-16a-3.5 DUP	1701285-53	Soil	3/25/17 11:00	3/25/17 16:00
CR1-5d1-0.5 DUP	1701285-54	Soil	3/25/17 12:57	3/25/17 16:00
P15d1-4.5 DUP	1701285-55	Soil	3/25/17 14:40	3/25/17 16:00

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Reported : 04/03/2017

Client Sample ID H-2-3.5

Lab ID: 1701285-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.8	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:06	



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Client Sample ID H-2b1-0.5

Lab ID: 1701285-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.2	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:09	



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Client Sample ID H-2b1-2.5

Lab ID: 1701285-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.8	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:10	



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Client Sample ID H-2b1-3.5

Lab ID: 1701285-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.2	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:12	



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Client Sample ID H-2c1-0.5

Lab ID: 1701285-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	71	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:13	



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Reported : 04/03/2017

Client Sample ID H-2c1-2.5

Lab ID: 1701285-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.4	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:16	



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Client Sample ID H-2c1-3.5

Lab ID: 1701285-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.0	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:17	



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Client Sample ID H-2d1-0.5

Lab ID: 1701285-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	92	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:19	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.5	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:35	D1



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Client Sample ID H-2d1-2.5

Lab ID: 1701285-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.0	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:20	



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Reported : 04/03/2017

Client Sample ID H-2d1-3.5

Lab ID: 1701285-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.1	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:21	



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Client Sample ID PE-3-3.5

Lab ID: 1701285-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	110	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:22	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.4	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:39	D1



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Client Sample ID PE-3b1-0.5

Lab ID: 1701285-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.0	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:23	



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Client Sample ID PE-3b1-2.5

Lab ID: 1701285-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	87	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:24	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.4	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:40	D1



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Client Sample ID PE-3b1-3.5

Lab ID: 1701285-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	40	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:25	



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Client Sample ID PE-3c1-0.5

Lab ID: 1701285-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.0	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:26	



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Client Sample ID PE-3c1-2.5

Lab ID: 1701285-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:30	



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Client Sample ID PE-3c1-3.5

Lab ID: 1701285-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.6	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:31	



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Client Sample ID C-18-0.5

Lab ID: 1701285-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	53	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:32	



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Client Sample ID C-18-2.5

Lab ID: 1701285-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.9	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:33	



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Client Sample ID C-18a-0.5

Lab ID: 1701285-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	47	1.0	0.11	1	B7C0931	03/28/2017	03/29/17 11:34	



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Client Sample ID C-18a-2.5

Lab ID: 1701285-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.3	1.0	0.11	1	B7C0932	03/28/2017	03/29/17 11:38	



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Client Sample ID C-18c-0.5

Lab ID: 1701285-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	17	1.0	0.11	1	B7C0932	03/28/2017	03/29/17 11:45	



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Client Sample ID C-18c-2.5

Lab ID: 1701285-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.5	1.0	0.11	1	B7C0932	03/28/2017	03/29/17 11:46	



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Client Sample ID B-16a-3.5

Lab ID: 1701285-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 11:47	



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Client Sample ID B-13a-3.5

Lab ID: 1701285-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	82	1.0	0.11	1	B7C0932	03/28/2017	03/29/17 11:48	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.6	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:42	D1



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Project Number : Roosevelt HS, 265642 / TA02
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Reported : 04/03/2017

Client Sample ID X-14-3.5

Lab ID: 1701285-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	17	1.0	0.11	1	B7C0932	03/28/2017	03/29/17 11:49	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID W-14-3.5

Lab ID: 1701285-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	29	1.0	0.11	1	B7C0932	03/28/2017	03/29/17 11:50	



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Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID X-18-0.5

Lab ID: 1701285-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 11:51	



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Reported : 04/03/2017

Client Sample ID X-18-2.5

Lab ID: 1701285-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 11:52	



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Client Sample ID X-18a-0.5

Lab ID: 1701285-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 11:53	



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Reported : 04/03/2017

Client Sample ID X-18a-2.5

Lab ID: 1701285-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 11:57	



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Reported : 04/03/2017

Client Sample ID X-18c-0.5

Lab ID: 1701285-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 11:58	



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Client Sample ID X-18c-2.5

Lab ID: 1701285-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 11:59	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Z-17-0.5

Lab ID: 1701285-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 12:00	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Z-17-2.5

Lab ID: 1701285-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 12:02	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Z-17b-0.5

Lab ID: 1701285-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 12:03	



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Project Number : Roosevelt HS, 265642 / TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID Z-17b-2.5

Lab ID: 1701285-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 12:04	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Z-17d-0.5

Lab ID: 1701285-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 12:05	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Z-17d-2.5

Lab ID: 1701285-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 12:06	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID CR1-5d1-0.5

Lab ID: 1701285-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.9	1.0	0.70	1	B7C0932	03/28/2017	03/29/17 12:07	
Lead	51	1.0	0.11	1	B7C0932	03/28/2017	03/29/17 12:07	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID CR1-5d1-2.5

Lab ID: 1701285-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B7C0933	03/28/2017	03/29/17 12:11	
Lead	3.8	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:11	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID P-15-3.5

Lab ID: 1701285-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	24	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:15	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Q15a-4.5

Lab ID: 1701285-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	140	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:16	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.2	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:43	D1



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Q15d-3.5

Lab ID: 1701285-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.5	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:17	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Q15d-4.5

Lab ID: 1701285-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.9	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:18	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID P15d1-0.5

Lab ID: 1701285-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:22	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID P15d1-2.5

Lab ID: 1701285-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:23	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID P15d1-3.5

Lab ID: 1701285-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	280	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:24	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	20	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:44	D1



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID P15d1-4.5

Lab ID: 1701285-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:25	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID EB-24-3/25/17

Lab ID: 1701285-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7C1019	03/30/2017	03/30/17 16:31	
Lead	ND	0.0050	0.0028	1	B7C1019	03/30/2017	03/30/17 16:31	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID H-2d1-3.5 DUP

Lab ID: 1701285-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.4	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:26	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID C-18a-0.5 DUP

Lab ID: 1701285-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	42	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:27	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID B-16a-3.5 DUP

Lab ID: 1701285-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.2	1.0	0.70	1	B7C0933	03/28/2017	03/29/17 12:28	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID CR1-5d1-0.5 DUP

Lab ID: 1701285-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.6	1.0	0.70	1	B7C0933	03/28/2017	03/29/17 12:29	
Lead	79	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:29	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID P15d1-4.5 DUP

Lab ID: 1701285-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:30	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7C0931 - EPA 3050B_S										
Blank (B7C0931-BLK1)					Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7C0931-BS1)					Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	42.8487	1.0	0.70	50.0000		85.7	80 - 120			
Lead	43.7652	1.0	0.11	50.0000		87.5	80 - 120			
Duplicate (B7C0931-DUP1)					Source: 1701285-01 Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	3.84164	1.0	0.70		4.10814			6.70	20	
Lead	3.64416	1.0	0.11		3.76447			3.25	20	
Matrix Spike (B7C0931-MS1)					Source: 1701285-01 Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	82.0254	1.0	0.70	125.000	4.10814	62.3	59 - 103			
Lead	83.4118	1.0	0.11	125.000	3.76447	63.7	34 - 129			
Matrix Spike Dup (B7C0931-MSD1)					Source: 1701285-01 Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	83.4606	1.0	0.70	125.000	4.10814	63.5	59 - 103	1.73	20	
Lead	82.2822	1.0	0.11	125.000	3.76447	62.8	34 - 129	1.36	20	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0932 - EPA 3050B_S

Blank (B7C0932-BLK1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	ND	1.0	0.70	
Lead	ND	1.0	0.11	

LCS (B7C0932-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	41.8714	1.0	0.70	50.0000	83.7	80 - 120
Lead	42.7646	1.0	0.11	50.0000	85.5	80 - 120

Duplicate (B7C0932-DUP1)

Source: 1701285-21

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	1.95124	1.0	0.70	2.07181	5.99	20
Lead	5.77309	1.0	0.11	5.33904	7.81	20

Matrix Spike (B7C0932-MS1)

Source: 1701285-21

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	89.2524	1.0	0.70	125.000	2.07181	69.7	59 - 103
Lead	93.8962	1.0	0.11	125.000	5.33904	70.8	34 - 129

Matrix Spike Dup (B7C0932-MSD1)

Source: 1701285-21

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	92.5811	1.0	0.70	125.000	2.07181	72.4	59 - 103	3.66	20
Lead	97.1128	1.0	0.11	125.000	5.33904	73.4	34 - 129	3.37	20



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0933 - EPA 3050B_S

Blank (B7C0933-BLK1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							

LCS (B7C0933-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	43.8312	1.0	0.70	50.0000		87.7	80 - 120			
Lead	44.8640	1.0	0.11	50.0000		89.7	80 - 120			

Duplicate (B7C0933-DUP1)

Source: 1701285-41

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	2.90540	1.0	0.70		2.59387			11.3	20	
Lead	3.88071	1.0	0.11		3.82095			1.55	20	

Matrix Spike (B7C0933-MS1)

Source: 1701285-41

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	93.9866	1.0	0.70	125.000	2.59387	73.1	59 - 103			
Lead	95.8736	1.0	0.11	125.000	3.82095	73.6	34 - 129			

Matrix Spike Dup (B7C0933-MSD1)

Source: 1701285-41

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	93.9766	1.0	0.70	125.000	2.59387	73.1	59 - 103	0.0106	20	
Lead	96.4274	1.0	0.11	125.000	3.82095	74.1	34 - 129	0.576	20	



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1019 - EPA 3010A_W

Blank (B7C1019-BLK1)

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	ND	0.010	0.0067	
Lead	ND	0.0050	0.0028	

LCS (B7C1019-BS1)

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	0.973979	0.010	0.0067	1.00000	97.4	80 - 120
Lead	0.979356	0.0050	0.0028	1.00000	97.9	80 - 120

Duplicate (B7C1019-DUP1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	ND	0.010	0.0067	ND		NR	20
Lead	ND	0.0050	0.0028	ND		NR	20

Matrix Spike (B7C1019-MS1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	2.34740	0.010	0.0067	2.50000	ND	93.9	74 - 123
Lead	2.43337	0.0050	0.0028	2.50000	ND	97.3	78 - 109

Matrix Spike Dup (B7C1019-MSD1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	2.33846	0.010	0.0067	2.50000	ND	93.5	74 - 123	0.381	20
Lead	2.42520	0.0050	0.0028	2.50000	ND	97.0	78 - 109	0.336	20



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/03/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1079 - STLC_S Extraction

Blank (B7C1079-BLK1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	ND	1.0	0.057						
Blank (B7C1079-BLK2)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	ND	1.0	0.057						
LCS (B7C1079-BS1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	1.86808			2.00000		93.4	80 - 120		
Duplicate (B7C1079-DUP1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	2.45894	1.0	0.057		2.49773			1.57	20
Duplicate (B7C1079-DUP2)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	0.508343	1.0	0.057		11.1368			183	20 R, J
Matrix Spike (B7C1079-MS1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	4.47787			2.50000	2.49773	79.2	44 - 130		
Matrix Spike (B7C1079-MS2)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	11.8151			2.50000	11.1368	27.1	44 - 130		M1
Matrix Spike Dup (B7C1079-MSD1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	4.54333			2.50000	2.49773	81.8	44 - 130	1.45	20



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Project Number : Roosevelt HS, 265642 / TA02

Report To : John Nordenstam

Reported : 04/03/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

3275 Walnut Ave., Signal Hill, CA 90755

Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Method of Transport		For Laboratory Use Only				ATLCOG Ver. 20130715			
		Sample Conditions Upon Receipt							
		Condition		Y	N	Condition		Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED		<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (Y/N)		<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT		<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP, deg C:			
<input type="checkbox"/> Other: _____		4. SEALED		<input type="checkbox"/>	<input type="checkbox"/>				

Company: THE SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel:	
City: IRVINE		State: CA		Zip: 92618	
Fax:					
SEND REPORT TO:		SEND INVOICE TO:			
Attn:		Email:			
Company:					
Address:					
City:		State:		Zip:	
Attn:		Email:			
Company:					
Address:					
City:		State:		Zip:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:		PO #:			
Sampler:		100816			
Lab No.		Sample Description		Time	
		Sample ID / Location		Date	
1	1711289-H	C-18a-2.5		3/25/17	1035
2	20	C-18c-0.5		3/25/17	1015
3	21	C-18c-2.5		3/25/17	1020
4	22	B-16a-3.5		3/25/17	1100
5	23	B-13a-3.5		3/25/17	1110
6	24	X-14-3.5		3/25/17	1200
7	25	W-14-3.5		3/25/17	1210
8	26	X-18-0.5		3/25/17	1215
9	27	X-18-2.5		3/25/17	1220
10	28	X-18a-0.5		3/25/17	1225

samples will be disposed of after 14 calendar days after receipt of samples.

Electronic records maintained for five (5) years from report date.

Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees:

- Extended storage: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if retained & solid samples; \$20/sample/week if extended storage is requested.
- Extended storage: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformatted report; \$35 per reprocessed EDD.

Q. Rush TCU/STLC samples: add 2 days to analysis TAT for extraction on procedure.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name Allen Ramirez Signature Allen TR

Relinquished by: (Signature and Printed Name)	Relinquished by: (Signature and Printed Name)	Relinquished by: (Signature and Printed Name)	Relinquished by: (Signature and Printed Name)
<i>[Signature]</i> Alicia Perez	<i>[Signature]</i> Alicia Perez	<i>[Signature]</i> Alicia Perez	<i>[Signature]</i> Alicia Perez
Date: 3/25/17	Date: 3/25/17	Date: 3/25/17	Date: 3/25/17
Time: 1:30	Time: 1:30	Time: 1:30	Time: 1:30
Received by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Received by: (Signature and Printed Name)
<i>[Signature]</i> Alicia Perez	<i>[Signature]</i> Alicia Perez	<i>[Signature]</i> Alicia Perez	<i>[Signature]</i> Alicia Perez
Date: 3/25/17	Date: 3/25/17	Date: 3/25/17	Date: 3/25/17
Time: 1:50	Time: 1:50	Time: 1:50	Time: 1:50

ADVANCED TECHNOLOGY
LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 5 of 5

CHAIN OF CUSTODY RECORD

For Laboratory Use Only

ATLCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt							
		Condition		Y	N	Condition		Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED		<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (VOA)		<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT		<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg. C:			
<input type="checkbox"/> Other: _____		4. SEALED		<input type="checkbox"/>	<input type="checkbox"/>				

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel:	
City: IRVINE		State: CA		Zip: 92618	
Fax:		SEND INVOICE TO:		Email: <input checked="" type="checkbox"/> same as SEND REPORT TO	
Attn: JOHN NORDENSTAM jnordenstam@trcsolutions.com		Attn:		Email:	
Company: TRC SOLUTIONS, INC		Company:			
Address: 9685 RESEARCH DRIVE		Address:			
City: IRVINE		City:		State: CA	
Zip: 92618		Zip:		State:	

CUSTOMER

Project Name:	Quote No:	Special Instructions/Comments:

Project Name: ROOSEVELT HS	Quote No: E178241	Special Instructions/Comments:	<div> <div>Encircle or Write Requested Analysis</div> <div>Encircle Sample Matrix</div> <div>TAT</div> </div>
Project No.: 265642/TA02	PO #: 100816		
Sampler: Glucose Cefalu			

Sample Description

[illegible]

PROJECT SAMPLES

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples received after 7:30 PM on Monday - Friday will be received and received the following business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 0 - 30000+ Surcharge. SAME BUSINESS DAY if received by 9:00 AM
TAT = 1 - 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2 - 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3 - 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4 - 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5 - 10% Surcharge 5TH BUSINESS DAY (COB 5:00 PM)
TAT = 6 - NO SURCHARGE. 6TH BUSINESS DAY. ask for quote.
4. Weekend and holidays are not included in the above turn-around, ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects resulting shorter TATs will incur a surcharge.
6. Samples received after 7:30 PM on Monday - Friday will be received and received the following business day at 8:00 AM.
7. Liquid and solid samples will be disposed of after 15 calendar days from receipt of samples; air samples will be disposed of after 30 calendar days from receipt of samples; air

samples will be disposed of after 14 calendar days after receipt of samples.

Electronic records maintained for five (5) years from report date.

Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees:

Liquid & solid samples: Complementary storage for forty-hr vs (45) calendar days from receipt of samples; \$2/sample/month if extended storage is requested.

All samples: Complementary storage for ten (10) calendar days from receipt of samples; \$200/sample/week if extended storage is requested.

Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per reprocesed EDO.

Hard copy and regenerated reports/EDOs: add 2 days to analysis TAT for extraction on procedure.

Unanalyzed samples will incur a disposal fee of \$21 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted

Submitter Print Name Allen Ramirez Signature Allen Ramirez

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>[Signature]</i>	3/25/17	1500	Alan Pernier	3-25-17	1500
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>[Signature]</i>	3-23-17	1600	<i>[Signature]</i> Alan Pernier	3/25/17	1600
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>[Signature]</i>			<i>[Signature]</i>		

Date:	Time:
5-17	1500
5-17	1700
5-17	1800

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, March 27, 2017 10:58 AM
To: Marnellie Ramos
Cc: Carmen Aguila; customer.relations@atlglobal.com
Subject: RE: Roosevelt HS - received 03/25/2017 and 03/26/2017

Marnellie – Please see my responses below in red.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Marnellie Ramos [mailto:Marnellie@atlglobal.com]
Sent: Monday, March 27, 2017 10:22 AM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: Carmen Aguila <Carmen@atlglobal.com>; customer.relations@atlglobal.com
Subject: Roosevelt HS - received 03/25/2017 and 03/26/2017

Hi John,

For samples collected on 03/25/17 the collection time in the chain of custody (CoC) does not match the container label for sample P15d1-4.5. On the CoC, the collection time is 14:35 but on the container it is 14:40. **Please use the sample time indicated on the sample container.**

For samples collected on 3/26/17, do you also need a 2 day TAT for IA-8-2.5, IA-8-3.5, IA-8-4.5, IA-7-0.5, IA-7-2.5, IA-7-3.5, IA-7-4.5, Q-15d1-0.5 & Q-15d1-2.5? TAT is not marked on the CoC. **YES, please analyze these samples on a 48 hour TAT.**

Please advise. I attached a copy of the CoC for your reference.

Thanks,
Marnellie



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 236
Fax: (562) 989-8807

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Nevada and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, March 27, 2017 11:33 AM
To: Rachelle Arada
Cc: Carmen Aguila; Maxwell, Jeff
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected March 25, 2017
Attachments: LAUSD Roosevelt - GC_3-25-17.pdf; LAUSD Roosevelt - AR_3-25-17.pdf

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on March 25, 2017, at LAUSD Roosevelt High School (see attachments):

- Please add the analysis for lead for the following samples:
 - CR1-5d1-0.5
 - CR1-5d1-2.5
- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and/or Lead (EPA Method 6010B) as specified below.
 - H-2d1-3.5 for lead
 - C-18a-0.5 for lead
 - B-16a-3.5 for arsenic
 - CR1-5d1-0.5 for arsenic and lead
 - P15d1-4.5 for lead
 - AUD-3a1-0.5 for lead
 - AA1917-4-3.5 for lead
 - AA2684-2-3.5 for arsenic
- **Sample turnaround time (TAT)** - The TAT was not indicated on the COC for the following samples. Please analyze these samples on a 48 hour TAT:
 - CR1-5d1-0.5
 - P15d1-0.5
 - P15d1-2.5
 - P15d1-3.5
 - P15d1-4.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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CHAIN OF CUSTODY RECORD

Page 1 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only
Sample Conditions Upon Receipt

Method of Transport	Condition	Y	N
ATL Client	1. CHILLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FieldEx	2. HEADSPACE (NOA)	<input type="checkbox"/>	<input type="checkbox"/>
GSD	3. CONTAINER INTACT	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other:	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

Company: **ATC SOLVENTS INC**
Address: **10655 SE 10th Ave**
City: **LAKE HAVAS**
State: **AZ**
Zip: **86403**
Tel: **928-226-1111**
Fax: **928-226-1111**

Project Name: **605-06345**
Project No: **256117102**
PO#: **PO036**
Sampler: **Glucose Cefan**

Quote No: **256117102**

SEND REPORT TO:
Attn: **Glucose Cefan**
Email: **glucose@atcsolvents.com**
Company: **ATC SOLVENTS INC**
Address: **10655 SE 10th Ave**
City: **LAKE HAVAS**
State: **AZ**
Zip: **86403**
Tel: **928-226-1111**
Fax: **928-226-1111**

ITEM	Lab No.	Sample Description		Date	Time	Encircle or Write Requested Analysis												Encircle Sample Matrix		Container	REMARKS
		Sample ID / Location				8260 (GRO)	8015 (GRO)	8270 (Sem-Volatiles)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)	8015 (DRO)		
1		41-2-23-5		4/23/13	0800																
2		41-2-261-2-5		3/23/13	0800																
3		41-2-261-2-5		3/23/13	0800																
4		41-2-261-2-5		3/23/13	0800																
5		41-2-261-2-5		3/23/13	0800																
6		41-2-261-2-5		3/23/13	0800																
7		41-2-261-2-5		3/23/13	0800																
8		41-2-261-2-5		3/23/13	0800																
9		41-2-261-2-5		3/23/13	0800																
10		41-2-261-2-5		3/23/13	0800																

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **Glucose Cefan**
Submitted Print Name: **Glucose Cefan**
Signature: **Glucose Cefan**

Date: **3/23/13**
Time: **1000**

Relinquished by: (Signature and Printed Name)
Relinquished by: **Glucose Cefan**
Relinquished by: **Glucose Cefan**
Relinquished by: **Glucose Cefan**

Date: **3/23/13**
Time: **1000**



CHAIN OF CUSTODY RECORD

Page 2 of 5

ADVANCED TECHNOLOGY
LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATCCOC Ver: 20130715	
Sample Conditions Upon Receipt			
Condition	Y	N	
1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
2. HEADSPACE (NDA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input type="checkbox"/>
3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg C <input type="checkbox"/>
4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company:	ATC SOLUTIONS, INC.	Address:	1605 PASEO DE LA VISTA	City:	IRVINE	State:	CA	Zip:	92614
Attn:	SAVIN, NADINE	Email:	nsavin@atcsolutions.com	Phone:	949-261-1102	Fax:	949-261-1103		
Company:	ATC SOLUTIONS, INC.	Address:	1605 PASEO DE LA VISTA	City:	IRVINE	State:	CA	Zip:	92614
Attn:	SAVIN, NADINE	Email:	nsavin@atcsolutions.com	Phone:	949-261-1102	Fax:	949-261-1103		

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8250 (G) 624 (Volatiles)	SOIL / SEDIMENT / SLUDGE	1	<input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB <input type="checkbox"/> Level IV
2	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8082 (PCB)	WATER / STORM / WASTE	1	
3	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	WATER / DRINKING / GROUND	1	
4	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	SOILS / WIFE / FILTER	1	
5	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	WATER / STORM / WASTE	1	
6	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	SOILS / WIFE / FILTER	1	
7	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	WATER / STORM / WASTE	1	
8	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	SOILS / WIFE / FILTER	1	
9	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	WATER / STORM / WASTE	1	
10	PC-3-3-3-5	PC-3-3-3-5	PC-3-3-3-5	3/15/17	0900	8081 (Organochlorine Residues)	SOILS / WIFE / FILTER	1	

Project Name:		Quote No:	Special Instructions/Comments:
200 SEVEN HILLS		8171334	
Project No:		PO#	
2656421102		1605	
Sampler:		Field Note	
Waste Cellar		1605	
Relinquished by: (Signature and Printed Name)		Date:	Time:
Relinquished by: (Signature and Printed Name)		Date:	Time:
Relinquished by: (Signature and Printed Name)		Date:	Time:

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Submitter: Print Name	Signature
Submitter: Print Name	Signature
Date:	Time:
Date:	Time:
Date:	Time:

Samples will be disposed of after 14 calendar days after receipt of samples.	
7. Electronic records maintained for five (5) years from report date.	
8. Hard copy reports will be disposed of after 45 calendar days from report date.	
9. Liquid & solid samples: Complementary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.	
- Air samples: Complementary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.	
- Hard copy and regenerated reports: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$55 per reprocessed EDD.	
10. Most CC/SYS/IC samples: add 2 days to analysis TAT for extraction on procedure.	
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	

Relinquished by: (Signature and Printed Name)		Date:	Time:
Relinquished by: (Signature and Printed Name)		Date:	Time:
Relinquished by: (Signature and Printed Name)		Date:	Time:



CHAIN OF CUSTODY RECORD

ADVANCED TECHNOLOGIES
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Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 5 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only
Sample Conditions Upon Receipt

Method of Transport	Condition	Y	N
<input type="checkbox"/> Client	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (VOC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

ATLCOG Ver: 20130715

Company: THE SOLUTIONS, INC.
Address: 16650 BLOSSOM RD
City: BAKERSFIELD
State: CA
Zip: 93311
Tel: (805) 338-0000
Fax: (805) 338-0000

SEND REPORT TO: [] same as SEND REPORT TO

Attn: [] Email: []

Company: [] Address: [] City: [] State: [] Zip: []

Project Name:		Quote No:	Special Instructions/Comments:	
6055-001-15		5-12-0241	[]	
Project No:		PO #:	[]	
2656421/1403		100816	[]	
Sampler:		6055-001-15	[]	
Lab No.		Sample Description		Time
ITEM	Sample ID / Location	Date	Time	
1	6055-001-15	3/26/13	1300	[]
2	6055-001-15	3/26/13	1345	
3	6055-001-15	3/26/13	1405	
4	6055-001-15	3/26/13	1410	
5	6055-001-15	3/26/13	1415	
6	6055-001-15	3/26/13	1420	
7	6055-001-15	3/26/13	1425	
8	6055-001-15	3/26/13	1430	
9	6055-001-15	3/26/13	1435	
10	6055-001-15	3/26/13	1440	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter: Print Name: [] Signature: [] Date: [] Time: []

Relinquished by: (Signature and Printed Name) [] Date: [] Time: []

Relinquished by: (Signature and Printed Name) [] Date: [] Time: []

Relinquished by: (Signature and Printed Name) [] Date: [] Time: []

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, March 29, 2017 4:35 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: RE: Rush TAT Results - Roosevelt HS, 265642 / TA02 (ATL# 1701285)

Importance: High

Rachelle – Please conduct STLC extractions for lead on a 48 hour TAT for the following samples included on this lab report :

- H-2d1-0.5
- PE-3-3.5
- PE-3b1-2.5
- B-13a-3.5
- Q15a-4.5
- P15d1-3.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Rachelle Arada [mailto:Rachelle@atlglobal.com]
Sent: Wednesday, March 29, 2017 3:45 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com
Subject: Rush TAT Results - Roosevelt HS, 265642 / TA02 (ATL# 1701285)

Hi John,

Please find your rush TAT results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*



April 07, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701285
Client Reference : Roosevelt HS, 265642 / TA02

Enclosed are the results for sample(s) received on March 25, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is placed above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/07/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PE-3-3.5	1701285-11	Soil	3/25/17 9:00	3/25/17 16:00
P15d1-3.5	1701285-48	Soil	3/25/17 14:30	3/25/17 16:00

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/07/2017

Client Sample ID PE-3-3.5

Lab ID: 1701285-11

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.044	0.25	0.014	5	B7D0101	04/05/2017	04/05/17 18:02	D1, J



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/07/2017

Client Sample ID P15d1-3.5

Lab ID: 1701285-48

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.080	0.25	0.014	5	B7D0101	04/05/2017	04/06/17 09:21	D1, J



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Project Number : Roosevelt HS, 265642 / TA02
Report To : John Nordenstam
Reported : 04/07/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0101 - EPA 3010A_S										
Blank (B7D0101-BLK1)					Prepared: 4/5/2017 Analyzed: 4/6/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0101-BLK2)					Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	3.0343E-3	0.050	0.0028							J
LCS (B7D0101-BS1)					Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.887995	0.050	0.0028	1.00000		88.8	80 - 120			
Duplicate (B7D0101-DUP1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.041521	0.25	0.014		0.043901			5.57	20	J
Duplicate (B7D0101-DUP2)					Source: 1701286-10 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.157194	0.25	0.014		0.168966			7.22	20	J
Matrix Spike (B7D0101-MS1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.34773	0.25	0.014	2.50000	0.043901	92.2	78 - 109			
Matrix Spike (B7D0101-MS2)					Source: 1701286-10 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.35472	0.25	0.014	2.50000	0.168966	87.4	78 - 109			
Matrix Spike Dup (B7D0101-MSD1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.35137	0.25	0.014	2.50000	0.043901	92.3	78 - 109	0.155	20	



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Project Number : Roosevelt HS, 265642 / TA02

Report To : John Nordenstam

Reported : 04/07/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, April 03, 2017 5:54 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: RE: Rush TAT Results - Roosevelt HS, 265642 / TA02 (ATL# 1701285)

Rachelle – Please conduct TCLP extractions for lead on a 3-day TAT for the following samples included on this lab report:

- PE-3-3.5
- P15d1-3.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Wednesday, March 29, 2017 4:35 PM
To: 'Rachelle Arada' <Rachelle@atlglobal.com>
Cc: Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: RE: Rush TAT Results - Roosevelt HS, 265642 / TA02 (ATL# 1701285)
Importance: High

Rachelle – Please conduct STLC extractions for lead on a 48 hour TAT for the following samples included on this lab report :

- H-2d1-0.5
- PE-3-3.5
- PE-3b1-2.5
- B-13a-3.5
- Q15a-4.5
- P15d1-3.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



April 11, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701286

Client Reference : ROOSEVELT HS, 265642/TA02

Enclosed are the results for sample(s) received on March 25, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram to the left.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-6-4.5	1701286-01	Soil	3/25/17 8:40	3/25/17 16:00
B-7-0.5	1701286-02	Soil	3/25/17 9:55	3/25/17 16:00
B-7-2.5	1701286-03	Soil	3/25/17 9:59	3/25/17 16:00
B-7-3.5	1701286-04	Soil	3/25/17 10:02	3/25/17 16:00
B-7-4.5	1701286-05	Soil	3/25/17 10:05	3/25/17 16:00
C-7-0.5	1701286-06	Soil	3/25/17 10:30	3/25/17 16:00
C-7-2.5	1701286-07	Soil	3/25/17 10:33	3/25/17 16:00
C-7-3.5	1701286-08	Soil	3/25/17 10:36	3/25/17 16:00
C-7-4.5	1701286-09	Soil	3/25/17 10:39	3/25/17 16:00
AUD-3a1-0.5	1701286-10	Soil	3/25/17 11:30	3/25/17 16:00
AUD-3a1-2.5	1701286-11	Soil	3/25/17 11:33	3/25/17 16:00
AUD-3b1-0.5	1701286-12	Soil	3/25/17 11:42	3/25/17 16:00
AUD-3b1-2.5	1701286-13	Soil	3/25/17 11:45	3/25/17 16:00
AUD-3c1-0.5	1701286-14	Soil	3/25/17 12:05	3/25/17 16:00
AUD-3c1-2.5	1701286-15	Soil	3/25/17 12:08	3/25/17 16:00
AUD-4c1-0.5	1701286-16	Soil	3/25/17 12:22	3/25/17 16:00
AUD-4c1-2.5	1701286-17	Soil	3/25/17 12:25	3/25/17 16:00
AA1917-4-3.5	1701286-18	Soil	3/25/17 12:55	3/25/17 16:00
AA2543-2-3.5	1701286-19	Soil	3/25/17 13:20	3/25/17 16:00
AA2543-1-3.5	1701286-20	Soil	3/25/17 13:39	3/25/17 16:00
AA2684-3-3.5	1701286-21	Soil	3/25/17 13:55	3/25/17 16:00
AA2684-2-3.5	1701286-22	Soil	3/25/17 14:10	3/25/17 16:00
AA2684-6-4.5	1701286-23	Soil	3/25/17 14:32	3/25/17 16:00
EB-25-3/25/17	1701286-24	Water	3/25/17 14:59	3/25/17 16:00
AUD-3a1-0.5 DUP	1701286-25	Soil	3/25/17 11:30	3/25/17 16:00
AA1917-4-3.5 DUP	1701286-26	Soil	3/25/17 12:55	3/25/17 16:00
AA2684-2-3.5 DUP	1701286-27	Soil	3/25/17 14:10	3/25/17 16:00

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID C-6-4.5

Lab ID: 1701286-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	57	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:43	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID B-7-0.5

Lab ID: 1701286-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	15	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:50	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID B-7-2.5

Lab ID: 1701286-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.3	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:51	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID B-7-3.5

Lab ID: 1701286-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.3	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:18	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID B-7-4.5

Lab ID: 1701286-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.0	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:22	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID C-7-0.5

Lab ID: 1701286-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	23	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:23	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID C-7-2.5

Lab ID: 1701286-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:25	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID C-7-3.5

Lab ID: 1701286-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	16	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:26	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID C-7-4.5

Lab ID: 1701286-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:29	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AUD-3a1-0.5

Lab ID: 1701286-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	110	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 14:53	

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.17	0.25	0.014	5	B7D0101	04/05/2017	04/06/17 09:23	D1, J

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.6	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:48	D1



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AUD-3a1-2.5

Lab ID: 1701286-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.7	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:31	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AUD-3b1-0.5

Lab ID: 1701286-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:33	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID AUD-3b1-2.5

Lab ID: 1701286-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.2	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:34	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AUD-3c1-0.5

Lab ID: 1701286-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	100	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:35	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.3	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:49	D1



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Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AUD-3c1-2.5

Lab ID: 1701286-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	43	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:36	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID AUD-4c1-0.5

Lab ID: 1701286-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:37	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID AUD-4c1-2.5

Lab ID: 1701286-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.4	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:38	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AA1917-4-3.5

Lab ID: 1701286-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	120	1.0	0.11	1	B7C0935	03/28/2017	03/29/17 13:39	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.43	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:50	D1, J



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID AA2543-2-3.5

Lab ID: 1701286-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.2	1.0	0.70	1	B7C0935	03/28/2017	03/29/17 13:43	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID AA2543-1-3.5

Lab ID: 1701286-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	23	1.0	0.70	1	B7C0935	03/28/2017	03/29/17 13:44	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID AA2684-3-3.5

Lab ID: 1701286-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	15	1.0	0.70	1	B7C0935	03/28/2017	03/29/17 13:45	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Client Sample ID AA2684-2-3.5

Lab ID: 1701286-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B7C0935	03/28/2017	03/29/17 13:46	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AA2684-6-4.5

Lab ID: 1701286-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	0.70	1	B7C0935	03/28/2017	03/29/17 13:47	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID EB-25-3/25/17

Lab ID: 1701286-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.0093	0.010	0.0067	1	B7C1019	03/30/2017	03/30/17 16:37	J
Lead	0.0029	0.0050	0.0028	1	B7C1019	03/30/2017	03/30/17 16:37	J



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
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Client Sample ID AUD-3a1-0.5 DUP

Lab ID: 1701286-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	110	1.0	0.11	1	B7C0936	03/28/2017	03/29/17 13:51	

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.16	0.25	0.014	5	B7D0207	04/08/2017	04/10/17 09:30	D1, J

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.7	1.0	0.057	20	B7D0116	04/05/2017	04/05/17 17:01	D1



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Reported : 04/11/2017

Client Sample ID AA1917-4-3.5 DUP

Lab ID: 1701286-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	0.11	1	B7C0936	03/28/2017	03/29/17 13:52	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Client Sample ID AA2684-2-3.5 DUP

Lab ID: 1701286-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 13:53	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7C0934 - EPA 3050B_S										
Blank (B7C0934-BLK1)					Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7C0934-BS1)					Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	43.2679	1.0	0.70	50.0000		86.5	80 - 120			
Lead	44.1917	1.0	0.11	50.0000		88.4	80 - 120			
Duplicate (B7C0934-DUP1)					Source: 1701286-01 Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	1.91126	1.0	0.70		2.01115			5.09	20	
Lead	30.9559	1.0	0.11		56.8536			59.0	20	R
Matrix Spike (B7C0934-MS1)					Source: 1701286-01 Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	74.3914	1.0	0.70	125.000	2.01115	57.9	59 - 103			M1
Lead	104.802	1.0	0.11	125.000	56.8536	38.4	34 - 129			
Matrix Spike Dup (B7C0934-MSD1)					Source: 1701286-01 Prepared: 3/28/2017 Analyzed: 3/29/2017					
Arsenic	91.1469	1.0	0.70	125.000	2.01115	71.3	59 - 103	20.2	20	R
Lead	129.905	1.0	0.11	125.000	56.8536	58.4	34 - 129	21.4	20	R



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0935 - EPA 3050B_S

Blank (B7C0935-BLK1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							

LCS (B7C0935-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	43.7090	1.0	0.70	50.0000		87.4	80 - 120			
Lead	44.3466	1.0	0.11	50.0000		88.7	80 - 120			

Duplicate (B7C0935-DUP1)

Source: 1701286-04

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	1.73966	1.0	0.70		1.76574			1.49	20	
Lead	4.44746	1.0	0.11		9.30362			70.6	20	R

Matrix Spike (B7C0935-MS1)

Source: 1701286-04

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	80.4004	1.0	0.70	125.000	1.76574	62.9	59 - 103			
Lead	82.6163	1.0	0.11	125.000	9.30362	58.7	34 - 129			

Matrix Spike Dup (B7C0935-MSD1)

Source: 1701286-04

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	82.4768	1.0	0.70	125.000	1.76574	64.6	59 - 103	2.55	20	
Lead	85.2446	1.0	0.11	125.000	9.30362	60.8	34 - 129	3.13	20	



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Reported : 04/11/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0936 - EPA 3050B_S

Blank (B7C0936-BLK1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							

LCS (B7C0936-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	42.5346	1.0	0.70	50.0000		85.1	80 - 120			
Lead	43.7952	1.0	0.11	50.0000		87.6	80 - 120			

Duplicate (B7C0936-DUP1)

Source: 1701289-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	1.40598	1.0	0.70		1.71413			19.8	20	
Lead	3.52968	1.0	0.11		3.80413			7.48	20	

Matrix Spike (B7C0936-MS1)

Source: 1701289-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	91.9454	1.0	0.70	125.000	1.71413	72.2	59 - 103			
Lead	94.6870	1.0	0.11	125.000	3.80413	72.7	34 - 129			

Matrix Spike Dup (B7C0936-MSD1)

Source: 1701289-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	85.8440	1.0	0.70	125.000	1.71413	67.3	59 - 103	6.86	20	
Lead	89.2776	1.0	0.11	125.000	3.80413	68.4	34 - 129	5.88	20	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1019 - EPA 3010A_W

Blank (B7C1019-BLK1)

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	ND	0.010	0.0067							
Lead	ND	0.0050	0.0028							

LCS (B7C1019-BS1)

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	0.973979	0.010	0.0067	1.00000		97.4	80 - 120			
Lead	0.979356	0.0050	0.0028	1.00000		97.9	80 - 120			

Duplicate (B7C1019-DUP1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	ND	0.010	0.0067		ND			NR	20	
Lead	ND	0.0050	0.0028		ND			NR	20	

Matrix Spike (B7C1019-MS1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	2.34740	0.010	0.0067	2.50000	ND	93.9	74 - 123			
Lead	2.43337	0.0050	0.0028	2.50000	ND	97.3	78 - 109			

Matrix Spike Dup (B7C1019-MSD1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	2.33846	0.010	0.0067	2.50000	ND	93.5	74 - 123	0.381	20	
Lead	2.42520	0.0050	0.0028	2.50000	ND	97.0	78 - 109	0.336	20	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0101 - EPA 3010A_S										
Blank (B7D0101-BLK1)					Prepared: 4/5/2017 Analyzed: 4/6/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0101-BLK2)					Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	3.0343E-3	0.050	0.0028							J
LCS (B7D0101-BS1)					Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.887995	0.050	0.0028	1.00000		88.8	80 - 120			
Duplicate (B7D0101-DUP1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.041521	0.25	0.014		0.043901			5.57	20	J
Duplicate (B7D0101-DUP2)					Source: 1701286-10 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.157194	0.25	0.014		0.168966			7.22	20	J
Matrix Spike (B7D0101-MS1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.34773	0.25	0.014	2.50000	0.043901	92.2	78 - 109			
Matrix Spike (B7D0101-MS2)					Source: 1701286-10 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.35472	0.25	0.014	2.50000	0.168966	87.4	78 - 109			
Matrix Spike Dup (B7D0101-MSD1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.35137	0.25	0.014	2.50000	0.043901	92.3	78 - 109	0.155	20	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
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TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7D0207 - EPA 3010A_S

Blank (B7D0207-BLK1)

Prepared: 4/8/2017 Analyzed: 4/10/2017

Lead ND 0.050 0.0028

LCS (B7D0207-BS1)

Prepared: 4/8/2017 Analyzed: 4/10/2017

Lead 0.932459 0.050 0.0028 1.00000 93.2 80 - 120

Duplicate (B7D0207-DUP1)

Source: 1701286-25

Prepared: 4/8/2017 Analyzed: 4/10/2017

Lead 0.161623 0.25 0.014 0.162560 0.578 20 J

Matrix Spike (B7D0207-MS1)

Source: 1701286-25

Prepared: 4/8/2017 Analyzed: 4/10/2017

Lead 2.54475 0.25 0.014 2.50000 0.162560 95.3 78 - 109

Matrix Spike Dup (B7D0207-MSD1)

Source: 1701286-25

Prepared: 4/8/2017 Analyzed: 4/10/2017

Lead 2.38647 0.25 0.014 2.50000 0.162560 89.0 78 - 109 6.42 20



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/11/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1079 - STLC_S Extraction

Blank (B7C1079-BLK1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	ND	1.0	0.057						
Blank (B7C1079-BLK2)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	ND	1.0	0.057						
LCS (B7C1079-BS1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	1.86808			2.00000	93.4	80 - 120			
Duplicate (B7C1079-DUP1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	2.45894	1.0	0.057		2.49773			1.57	20
Duplicate (B7C1079-DUP2)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	0.508343	1.0	0.057		11.1368			183	20 R, J
Matrix Spike (B7C1079-MS1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	4.47787			2.50000	2.49773	79.2	44 - 130		
Matrix Spike (B7C1079-MS2)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	11.8151			2.50000	11.1368	27.1	44 - 130		M1
Matrix Spike Dup (B7C1079-MSD1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	4.54333			2.50000	2.49773	81.8	44 - 130	1.45	20



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7D0116 - STLC_S Extraction

Blank (B7D0116-BLK1)

Prepared: 4/5/2017 Analyzed: 4/5/2017

Lead ND 1.0 0.057

LCS (B7D0116-BS1)

Prepared: 4/5/2017 Analyzed: 4/5/2017

Lead 1.91201 2.00000 95.6 80 - 120

Duplicate (B7D0116-DUP1)

Source: 1700881-17RE2

Prepared: 4/5/2017 Analyzed: 4/5/2017

Lead 32.6760 1.0 0.057 32.5572 0.364 20

Matrix Spike (B7D0116-MS1)

Source: 1700881-17RE2

Prepared: 4/5/2017 Analyzed: 4/5/2017

Lead 32.8798 2.50000 32.5572 12.9 44 - 130 M1

Matrix Spike Dup (B7D0116-MSD1)

Source: 1700881-17RE2

Prepared: 4/5/2017 Analyzed: 4/5/2017

Lead 33.1859 2.50000 32.5572 25.1 44 - 130 0.926 20 M1



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/11/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



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Page 1 of 3

ADVANCED TECHNOLOGY

Instruction: Complete all shaded areas.

Company: _____
Address: 9685 RFSFARCT DRIVE _____
Tel: _____

City:	TORONTO	State:	CA	Zip:	M5G 1K7	Fax:	
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	S E N D I N V O I C E T O :	X same as SEND REPORT TO
	S E N D R E P O R T T O :	

Attn: Travis Email: travis@...

Company: _____

Company: _____

U
N
H
S
F
S
U
H

Address: 2185 REEFVIEW CT NW

City:	State:	Zip:
City:	State:	Zip:

[illegible]

Project Name:	Quote No:	Special Instructions/Comments:	Encircle Sample Matrix	Container	4C/UC/UC
		Encircle or Write Requested Analysis		Container	4C/UC/UC


TIME	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	46
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 HAW HOCHSCHULE FÜR ANGEWANDTE WISSENSCHAFTEN

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As the authorized agent of the company above, I hereby

purchase laboratory services from ATL as shown above and

[illegible]

Mouskoud
 bollelau, abtge, chours vorte - ask for nurse
 TAX = 5; NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
 requested.
 -Hard copy and regenerated reports (EDMS: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report:

\$35 per reprocessed EDD.

10. Rush TCLP/SILC samples: add 2 days to analysis TAT for extraction on procedure.

5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge.
respective to the subcontract lab—ask for quote.

Signature _____
Schmitter Print Name _____

6. Liquid and solid samples will be disposed or after 42 calendar days from receipt on samples, air

11. Unanalyzed samples will incur a disposal fee of \$7/ per sample.

Remitted: 3-25-17
Date: 3-25-17
Reinquired by: (Signature and Printed Name) *Alfonso*
Received by: (Signature and Printed Name) *Alfonso*

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name)	Date:	Time:
Received by: (Signature and Printed Name)	Date:	Time:

1000

CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas.

Method of Transport		Condition		Y		N		Condition	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 2. HEADSPACE (VDA)	<input type="checkbox"/>	<input type="checkbox"/> 6. PRESERVED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	<input type="checkbox"/>	<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/> 7. COOLER TEMP. deg C:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Company: TRC SOLUTIONS, INC.		Address: 9685 RESEARCH DRIVE		Tel: _____	
Attn: JOHN NORDENSTAM		City: IRVINE		State: CA Zip: 92618	
Company: TRC SOLUTIONS, INC.		Address: _____		Email: _____	
Address: 9685 RESEARCH DRIVE		City: _____		State: _____ Zip: _____	
City: IRVINE		State: CA		Zip: 92618	

Project Name: ROOSEVELT HS		Quote No: E178241	Special Instructions/Comments:	
Project No.: 265642 / TA02		PO #: 100816		
Sampler: RAMIREZ				
ITEM	Lab No.	Sample ID / Location	Date	Time
1	170 D26-21	AA2684-3-3.5	3-25-17	1355
2	170 D26-22	AA2684-2-3.5	3-25-17	1410
3	170 D26-23	AA2684-6-4.5	3-25-17	1432
4	170 D26-24	EB-25-3/25/17	3-25-17	1459
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As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Allan Ramirez** Signature: *Allan Ramirez*

Date: **3/25/17** Time: **1600**

Received by: (Signature and Printed Name) **Allan Ramirez** Date: **3-25-17** Time: **1600**

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, March 27, 2017 11:33 AM
To: Rachelle Arada
Cc: Carmen Aguila; Maxwell, Jeff
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected March 25, 2017
Attachments: LAUSD Roosevelt - GC_3-25-17.pdf; LAUSD Roosevelt - AR_3-25-17.pdf

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on March 25, 2017, at LAUSD Roosevelt High School (see attachments):

- Please add the analysis for lead for the following samples:
 - CR1-5d1-0.5
 - CR1-5d1-2.5
- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and/or Lead (EPA Method 6010B) as specified below.
 - H-2d1-3.5 for lead
 - C-18a-0.5 for lead
 - B-16a-3.5 for arsenic
 - CR1-5d1-0.5 for arsenic and lead
 - P15d1-4.5 for lead
 - AUD-3a1-0.5 for lead
 - AA1917-4-3.5 for lead
 - AA2684-2-3.5 for arsenic
- **Sample turnaround time (TAT)** - The TAT was not indicated on the COC for the following samples. Please analyze these samples on a 48 hour TAT:
 - CR1-5d1-0.5
 - P15d1-0.5
 - P15d1-2.5
 - P15d1-3.5
 - P15d1-4.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Page 2 of 3

Method of Transport		Simple Conditions Upon Receipt						ATLCCDC Ver: 20130715	
		Condition		Y	N	Condition		Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED		<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH CDC		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (VOL)		<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT		<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP, deg C:			
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Company: TRC SOLUTIONS, INC.		Address: 9625 LESTER AVE		Tel: _____	
City: IRVINE		State: CA		Zip: 92618	
Fax: _____					
SEND REPORT TO:					
Attn: JOHN NOIDENSTAM		Email: _____		SEND INVOICE TO: <input checked="" type="checkbox"/> same as SEND REPORT TO	
Company: TRC SOLUTIONS, INC.		Address: _____		Email: _____	
City: _____		State: _____		Zip: _____	
Zip: _____		City: _____		State: _____	
State: _____		Zip: _____		City: _____	
City: IRVINE		State: CA		Zip: 92618	

ITEM	Lab No.	Sample Description	Special Instructions/Comments		Encircle or Write Requested Analysis										Encircle Sample Matrix				Container		REMARKS																																																																																																																																																																																																																																																																																																																																							
			Quota No.	Project No.	PO #	8260 (GRO)	8015 (GRO)	8270 (Semi-volatiles)	8081 (Organochlorine pesticides)	8082 (PCBs)	6010 / 7000 (Trace Metals)	LEAD	COPPER	ZINC	MANGANESE	NICKEL	CHROMIUM	IRON	Cadmium	Barium		Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium	Molybdenum	Cobalt	Manganese	Zinc	Nickel	Chromium	Iron	Cadmium	Barium	Strontium	Selenium	Vanadium

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p style="text-align: right;"><i>[Signature]</i> _____ Submitter Print Name</p>	<p>Date: <u>7/25/17</u> Time: <u>1600</u></p> <p>Date: _____ Time: _____</p> <p>Date: _____ Time: _____</p>
--	---

<p>samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. Storage and Report Fees: - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested. Hard copy and regenerated reports/EODs: \$175.00 per hard copy report requested; \$50.00 per regenerated/reforms; ad report request and hard copy report add 2 days to analyze time for extraction on procedure. 10. Rush TCG/STC pick up and 2 day to analyze TAX for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>	<p>Received by: (Signature and Printed Name) <i>[Signature]</i> _____ Time: _____</p> <p>Date: _____</p> <p>Received by: (Signature and Printed Name) _____ Time: _____</p> <p>Date: _____</p> <p>Received by: (Signature and Printed Name) _____ Time: _____</p> <p>Date: _____</p>
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CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Y	<input type="checkbox"/> H
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnSite	<input type="checkbox"/> Condition	<input type="checkbox"/> Condition
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 2. # OF SAMPLES MATCH COC
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. HEADSPACE (NDA)	<input type="checkbox"/> 4. PRESERVED
		<input type="checkbox"/> 5. CONTAINER INTACT	<input type="checkbox"/> 6. COOLER TEMP, deg C
		<input type="checkbox"/> 7. COOLER TEMP, deg C	<input type="checkbox"/> 8. SEALED

Customer Information:
Company: TEC SOLUTIONS, INC.
Address: 1000 N. GARDEN ST. #100
City: ANAHEIM State: CA Zip: 92810
Tel: (714) 771-1111 Fax: (714) 771-1111

Project Information:
Project Name: PROJECT 100
Project No: 100
Sample: 100
Lab No: 100

Special Instructions/Comments:
100

SEND REPORT TO:
Attn: JOHN NORDEN
Company: TEC SOLUTIONS, INC.
Address: 1000 N. GARDEN ST. #100
City: ANAHEIM State: CA Zip: 92810
Tel: (714) 771-1111 Fax: (714) 771-1111

SEND INVOICE TO:
Attn: JOHN NORDEN
Company: TEC SOLUTIONS, INC.
Address: 1000 N. GARDEN ST. #100
City: ANAHEIM State: CA Zip: 92810
Tel: (714) 771-1111 Fax: (714) 771-1111

ITEM	Lab No.	Sample ID / Location	Sample Description	Special Instructions/Comments		Encircle or Write Requested Analysis										Encircle Sample Matrix					TAT	Container			REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				Quote No:		8260 / 624 (Volatiles)	8015 (GRO)	8015 (PRO)	8270 (Semi-Volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	6010 / 7000 (The 22 Metals)	7140 / 6010 (Liquids)	7140 / 6010 (Liquids)	7140 / 6010 (Liquids)	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIFE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL		Type: 1=Glass, 2=Plastic, 3=Metal	Seal: 1=Seal, 2=Seal, 3=Seal	Preservative: 1=HCl, 2=HNO3, 3=H2SO4, 4=H2O																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: [Signature] Date: 3/25/17

Submitter Print Name: John Norden

TERMS:
1. Samples received hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The fee for 1000 Surcharge, SAME BUSINESS DAY if received by 8:00 AM
TAT = 1: 1000 Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 500 Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 300 Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 200 Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 Business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples, air respective to the subcontract ask - ask for quote.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$200 sample/week if extended storage is requested.
- Extended storage or field is requested.
- Hard copy and regenerated reports/EDDs: \$15.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reprocessed EDD.
10. Rush TAT/STC samples: add a days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

CUSTODY:
Relinquished by: [Signature] Date: 3/25/17
Relinquished by: [Signature] Date: 3/25/17
Relinquished by: [Signature] Date: 3/25/17
Relinquished by: [Signature] Date: 3/25/17

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Friday, March 31, 2017 4:40 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: FW: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Rachelle – Please conduct an additional STLC extraction for lead on a 3 day TAT for **Sample AUD-3a1-0.5 DUP** included on this lab report. Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Wednesday, March 29, 2017 4:37 PM
To: 'Rachelle Arada' <Rachelle@atlglobal.com>
Cc: Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Rachelle – Please conduct STLC extractions for lead on a 48 hour TAT for the following samples included on this lab report:

- AUD-3a1-0.5
- AUD-3c1-0.5
- AA1917-4-3.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Rachelle Arada [<mailto:Rachelle@atlglobal.com>]
Sent: Wednesday, March 29, 2017 4:04 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com
Subject: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, April 03, 2017 5:58 PM
To: Rachelle Arada
Cc: Maxwell, Jeff
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Rachelle – Please conduct a TCLP extraction for lead on a 3-day TAT for the following sample included on this lab report:

- AUD-3a1-0.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Wednesday, March 29, 2017 4:37 PM
To: 'Rachelle Arada' <Rachelle@atlglobal.com>
Cc: Maxwell, Jeff <JMaxwell@trcsolutions.com>
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Rachelle – Please conduct STLC extractions for lead on a 48 hour TAT for the following samples included on this lab report:

- AUD-3a1-0.5
- AUD-3c1-0.5
- AA1917-4-3.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Rachelle Arada [<mailto:Rachelle@atlglobal.com>]
Sent: Wednesday, March 29, 2017 4:04 PM

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Thursday, April 06, 2017 12:51 PM
To: Rachelle Arada
Cc: Maxwell, Jeff; customer.relations@atlglobal.com
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Rachelle – Please conduct a TCLP extraction for lead on a 3 day TAT for this sample (**AUD-3a1-0.5 DUP**). Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Rachelle Arada [mailto:Rachelle@atlglobal.com]
Sent: Thursday, April 06, 2017 10:10 AM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: Maxwell, Jeff <JMaxwell@trcsolutions.com>; customer.relations@atlglobal.com
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Hi John,

Please find the STLC results attached. Work order is pending TCLP results which is scheduled to be completed by tomorrow. If I can further assist, please let me know. Thanks.

Rachelle

From: Rachelle Arada
Sent: Wednesday, April 05, 2017 7:13 PM
To: Nordenstam, John
Cc: Maxwell, Jeff; customer.relations@atlglobal.com
Subject: Re: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)

Good evening John.

I just wanted to let you know that the STLC results will not be available tonight. We had to recalibrate our instruments due to power outage this afternoon that put us behind schedule. I will provide another update tomorrow. Sorry for the delay. Thanks.

Rachelle

Sent from my LG Phoenix 2, an AT&T 4G LTE smartphone

----- Original message-----

From: Nordenstam, John
Date: Fri, Mar 31, 2017 4:40 PM
To: Rachelle Arada;
Cc: Maxwell, Jeff;
Subject: FW: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701286)



April 03, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701287

Client Reference : ROOSEVELT HS, 265642/TA02

Enclosed are the results for sample(s) received on March 26, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IA-8-0.5	1701287-01	Soil	3/26/17 7:45	3/26/17 11:45
IA-8-2.5	1701287-02	Soil	3/26/17 7:49	3/26/17 11:45
IA-8-3.5	1701287-03	Soil	3/26/17 7:52	3/26/17 11:45
IA-8-4.5	1701287-04	Soil	3/26/17 7:55	3/26/17 11:45
IA-7-0.5	1701287-05	Soil	3/26/17 8:03	3/26/17 11:45
IA-7-2.5	1701287-06	Soil	3/26/17 8:06	3/26/17 11:45
IA-7-3.5	1701287-07	Soil	3/26/17 8:08	3/26/17 11:45
IA-7-4.5	1701287-08	Soil	3/26/17 8:10	3/26/17 11:45
Q-15d1-0.5	1701287-09	Soil	3/26/17 8:30	3/26/17 11:45
Q-15d1-2.5	1701287-10	Soil	3/26/17 8:33	3/26/17 11:45
Q-15d1-3.5	1701287-11	Soil	3/26/17 8:36	3/26/17 11:45
Q-15d1-4.5	1701287-12	Soil	3/26/17 8:39	3/26/17 11:45
IM-1-3.5	1701287-13	Soil	3/26/17 9:02	3/26/17 11:45
IM-2-3.5	1701287-14	Soil	3/26/17 9:13	3/26/17 11:45
IM-5d-4.5	1701287-15	Soil	3/26/17 9:20	3/26/17 11:45
IM-5-3.5	1701287-16	Soil	3/26/17 9:23	3/26/17 11:45
IM-4-3.5	1701287-17	Soil	3/26/17 9:36	3/26/17 11:45
IM-3c-4.5	1701287-18	Soil	3/26/17 9:45	3/26/17 11:45
CRA-2-3.5	1701287-19	Soil	3/26/17 9:57	3/26/17 11:45
CRA-2c-4.5	1701287-20	Soil	3/26/17 10:09	3/26/17 11:45
EB-27-3/26/17	1701287-21	Water	3/26/17 10:31	3/26/17 11:45
Q-15d1-2.5 Dup	1701287-22	Soil	3/26/17 8:33	3/26/17 11:45
IM-5d-4.5 Dup	1701287-23	Soil	3/26/17 9:20	3/26/17 11:45
CRA-2c-4.5 Dup	1701287-24	Soil	3/26/17 10:09	3/26/17 11:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IA-8-0.5

Lab ID: 1701287-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:32	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IA-8-2.5

Lab ID: 1701287-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:35	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IA-8-3.5

Lab ID: 1701287-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:36	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IA-8-4.5

Lab ID: 1701287-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.6	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:37	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IA-7-0.5

Lab ID: 1701287-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:39	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IA-7-2.5

Lab ID: 1701287-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.9	1.0	0.11	1	B7C0933	03/28/2017	03/29/17 12:40	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IA-7-3.5

Lab ID: 1701287-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.8	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 14:51	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IA-7-4.5

Lab ID: 1701287-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:53	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID Q-15d1-0.5

Lab ID: 1701287-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.8	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:54	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID Q-15d1-2.5

Lab ID: 1701287-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.3	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:55	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID Q-15d1-3.5

Lab ID: 1701287-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.0	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:57	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID Q-15d1-4.5

Lab ID: 1701287-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.3	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 12:58	



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IM-1-3.5

Lab ID: 1701287-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	1.0	0.70	1	B7C0934	03/28/2017	03/29/17 12:59	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IM-2-3.5

Lab ID: 1701287-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	63	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 13:02	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IM-5d-4.5

Lab ID: 1701287-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B7C0934	03/28/2017	03/29/17 13:04	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IM-5-3.5

Lab ID: 1701287-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	0.70	1	B7C0934	03/28/2017	03/29/17 13:05	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IM-4-3.5

Lab ID: 1701287-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7C0934	03/28/2017	03/29/17 13:06	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IM-3c-4.5

Lab ID: 1701287-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	0.70	1	B7C0934	03/28/2017	03/29/17 13:07	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID CRA-2-3.5

Lab ID: 1701287-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	23	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 13:08	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID CRA-2c-4.5

Lab ID: 1701287-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 14:52	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID EB-27-3/26/17

Lab ID: 1701287-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7C0910	03/28/2017	03/28/17 17:39	
Lead	ND	0.0050	0.0028	1	B7C0910	03/28/2017	03/28/17 17:39	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID Q-15d1-2.5 Dup

Lab ID: 1701287-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.2	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 13:10	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID IM-5d-4.5 Dup

Lab ID: 1701287-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	10	1.0	0.70	1	B7C0934	03/28/2017	03/29/17 13:11	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID CRA-2c-4.5 Dup

Lab ID: 1701287-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.9	1.0	0.11	1	B7C0934	03/28/2017	03/29/17 13:12	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0910 - EPA 3010A_W

Blank (B7C0910-BLK1)

Prepared: 3/28/2017 Analyzed: 3/28/2017

Arsenic	ND	0.010	0.0067
Lead	ND	0.0050	0.0028

LCS (B7C0910-BS1)

Prepared: 3/28/2017 Analyzed: 3/28/2017

Arsenic	0.866296	0.010	0.0067	1.00000	86.6	80 - 120
Lead	0.873581	0.0050	0.0028	1.00000	87.4	80 - 120

Duplicate (B7C0910-DUP1)

Source: 1701287-21

Prepared: 3/28/2017 Analyzed: 3/28/2017

Arsenic	ND	0.010	0.0067	ND		NR	20
Lead	ND	0.0050	0.0028	ND		NR	20

Matrix Spike (B7C0910-MS1)

Source: 1701287-21

Prepared: 3/28/2017 Analyzed: 3/28/2017

Arsenic	2.24209	0.010	0.0067	2.50000	ND	89.7	74 - 123
Lead	2.25475	0.0050	0.0028	2.50000	ND	90.2	78 - 109

Matrix Spike Dup (B7C0910-MSD1)

Source: 1701287-21

Prepared: 3/28/2017 Analyzed: 3/28/2017

Arsenic	2.14296	0.010	0.0067	2.50000	ND	85.7	74 - 123	4.52	20
Lead	2.14111	0.0050	0.0028	2.50000	ND	85.6	78 - 109	5.17	20



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0933 - EPA 3050B_S

Blank (B7C0933-BLK1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	ND	1.0	0.70
Lead	ND	1.0	0.11

LCS (B7C0933-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	43.8312	1.0	0.70	50.0000	87.7	80 - 120
Lead	44.8640	1.0	0.11	50.0000	89.7	80 - 120

Duplicate (B7C0933-DUP1)

Source: 1701285-41

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	2.90540	1.0	0.70	2.59387	11.3	20
Lead	3.88071	1.0	0.11	3.82095	1.55	20

Matrix Spike (B7C0933-MS1)

Source: 1701285-41

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	93.9866	1.0	0.70	125.000	2.59387	73.1	59 - 103
Lead	95.8736	1.0	0.11	125.000	3.82095	73.6	34 - 129

Matrix Spike Dup (B7C0933-MSD1)

Source: 1701285-41

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	93.9766	1.0	0.70	125.000	2.59387	73.1	59 - 103	0.0106	20
Lead	96.4274	1.0	0.11	125.000	3.82095	74.1	34 - 129	0.576	20



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7C0934 - EPA 3050B_S

Blank (B7C0934-BLK1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							

LCS (B7C0934-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	43.2679	1.0	0.70	50.0000		86.5	80 - 120			
Lead	44.1917	1.0	0.11	50.0000		88.4	80 - 120			

Duplicate (B7C0934-DUP1)

Source: 1701286-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	1.91126	1.0	0.70		2.01115			5.09	20	
Lead	30.9559	1.0	0.11		56.8536			59.0	20	R

Matrix Spike (B7C0934-MS1)

Source: 1701286-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	74.3914	1.0	0.70	125.000	2.01115	57.9	59 - 103			M1
Lead	104.802	1.0	0.11	125.000	56.8536	38.4	34 - 129			

Matrix Spike Dup (B7C0934-MSD1)

Source: 1701286-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	91.1469	1.0	0.70	125.000	2.01115	71.3	59 - 103	20.2	20	R
Lead	129.905	1.0	0.11	125.000	56.8536	58.4	34 - 129	21.4	20	R



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 2 of 3

Instruction: Complete all shaded areas.

Method of Transport		Simple Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> OnTrac	2. HEADSPACE (VDA)	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Other:		3. CONTAINER IMPACT	<input type="checkbox"/> Y <input type="checkbox"/> N
		4. SEALED	<input type="checkbox"/> Y <input type="checkbox"/> N

Company: TRC SOLUTIONS, INC.		Tel: _____	
Address: 9685 RESEARCH DRIVE		State: CA Zip: 92618	
City: IRVINE		Fax: _____	
Attn: JOHN NORDENSTAM jnordenstam@trcsolutions.com		SEND INVOICE TO: _____ Email: _____	
Company: TRC SOLUTIONS, INC.		Attn: _____	
Address: 9685 RESEARCH DRIVE		City: _____	
State: CA Zip: 92618		State: _____ Zip: _____	

Project Name: ROOSEVELT HS		Quote No: E178241	Special Instructions/Comments:	
Project No.: 265642/TA02		PO #: 100816		
Sampler: RAMIREZ				
ITEM	Lab No.	Sample ID / Location	Date	Time
1	1701287-11	Q-15d1-3.5	3-26-17	0836
2	-12	Q-15d1-4.5		0839
3	-13	IM-1-3.5		0902
4	-14	IM-2-3.5		0913
5	-15	IM-5d1-4.5		0920
6	-16	IM-5-3.5		0927
7	-17	IM-4-3.5		0936
8	-18	IM-3c-4.5		0945
9	-19	CPA-2-3.5		0957
10	-20	CPA-2c-4.5		1009

<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>Signature: <u>Allen Ramirez</u> Date: <u>3/26/17</u> Time: <u>11:45</u></p> <p>Submitter Print Name: _____ Signature: _____</p>		<p>Relinquished by: (Signature and Printed Name) <u>Allen Ramirez</u> Date: <u>3-26-17</u> Time: <u>11:45</u></p> <p>Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____</p> <p>Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____</p>	
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CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt			
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y	N	Condition
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC <input type="checkbox"/>
<input type="checkbox"/> GSO		2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED <input type="checkbox"/>
<input type="checkbox"/> Other:		3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP, deg. C: <input type="checkbox"/>
		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>	

Company: TRC SOLUTIONS, INC.		Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA		Zip: 92618		Tel: 92618	
Attn: JOHN NORDENSTAM		Email: john.nordenstam@trcsolutions.com		Company: TRC SOLUTIONS, INC.		Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA	
City: IRVINE		State: CA		Zip: 92618		City: IRVINE		State: CA		Zip: 92618	

Project Name: ROOSEVELT HS		Quote No: E178241	Special Instructions/Comments:	
Project No.: 265642 / TAO2		PO #: 100816		
Sampler: RAMIREZ				
ITEM	Lab No.	Sample ID / Location	Date	Time
1	1701257	EB-27-3/26/17	3-26-17	1031
2	1701257			
3				
4				
5				
6				
7				
8				
9				
10				

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **Allen Ramirez** Signature: **Allen Ramirez**

Date: **3/26/17** Time: **1145**

Received by: (Signature and Printed Name) **Allen Ramirez** Date: **3-26-17** Time: **1145**

Relinquished by: (Signature and Printed Name) **Allen Ramirez** Date: **3-26-17** Time: **1145**

Relinquished by: (Signature and Printed Name) **Allen Ramirez** Date: **3-26-17** Time: **1145**

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, March 27, 2017 12:57 PM
To: Rachelle Arada
Cc: Carmen Aguila; Maxwell, Jeff
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected March 26, 2017
Attachments: LAUSD Roosevelt - AR_3-26-17.pdf; LAUSD Roosevelt - GC_3-26-17.pdf

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on March 26, 2017, at LAUSD Roosevelt High School (see attachments):

- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and/or Lead (EPA Method 6010B) as specified below.
 - o CR1-4b1-0.5 for lead
 - o AA2543-5-3.5 for arsenic
 - o Q-15d1-2.5 for lead
 - o IM-5d-4.5 for arsenic
 - o CRA-2c-4.5 for lead
- **Sample turnaround time (TAT)** - The TAT was not indicated on the COC for the following samples. Please analyze these samples on a 48 hour TAT:
 - o IA-8-2.5
 - o IA-8-3.5
 - o IA-8-4.5
 - o IA-7-0.5
 - o IA-7-2.5
 - o IA-7-3.5
 - o IA-7-4.5
 - o Q-15d1-0.5
 - o Q-15d1-2.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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CHAIN OF CUSTODY RECORD

LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Page 1 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCCOC Ver: 20130715

Method of Transport	Condition	Y	N
<input type="checkbox"/> AIL	Condition		
<input type="checkbox"/> FedEx	Condition		
<input type="checkbox"/> GSO	Condition		
<input type="checkbox"/> Other:	Condition		

1. CRILLED ☐ 5. # OF SAMPLES MATCH COC ☐ 6. PRESERVED ☐ 7. COOLER TEMP. deg C ☐ 8. SEALED ☐

Company: **TEC SOLUTIONS, INC.** Address: **7705 PESTER DRIVE** City: **LOS ANGELES** State: **CA** Zip: **90048**
Attn: **JOHN NOLEN** Email: **JOHN.NOLEN@TECSOL.COM** Tel: **310-591-1111**
Company: **TEC SOLUTIONS, INC.** Address: **7705 PESTER DRIVE** City: **LOS ANGELES** State: **CA** Zip: **90048**
Address: **7705 PESTER DRIVE** City: **LOS ANGELES** State: **CA** Zip: **90048**
City: **LOS ANGELES** State: **CA** Zip: **90048**

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	End Circle Sample Matrix	Container	QA/QC
1	TA-8-2-5	TA-8-2-5	TA-8-2-5	8/2/08	0749	8260 (Volatiles)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
2	TA-8-2-5	TA-8-2-5	TA-8-2-5	8/2/08	0749	8082 (PCBs)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
3	TA-8-2-5	TA-8-2-5	TA-8-2-5	8/2/08	0749	8015 (PCBs)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
4	TA-8-2-5	TA-8-2-5	TA-8-2-5	8/2/08	0749	8015 (PCBs)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
5	TA-7-0-5	TA-7-0-5	TA-7-0-5	8/2/08	0803	8260 (Volatiles)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
6	TA-7-2-5	TA-7-2-5	TA-7-2-5	8/2/08	0806	8015 (PCBs)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
7	TA-7-2-5	TA-7-2-5	TA-7-2-5	8/2/08	0808	8015 (PCBs)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
8	TA-7-4-5	TA-7-4-5	TA-7-4-5	8/2/08	0810	8015 (PCBs)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
9	Q-15-11-0-5	Q-15-11-0-5	Q-15-11-0-5	8/2/08	0820	8260 (Volatiles)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3
10	Q-15-11-0-5	Q-15-11-0-5	Q-15-11-0-5	8/2/08	0823	8260 (Volatiles)	ACETONE	15 mL	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H2O2, 5-NaOH, 7-Na2S2O3

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: **John Nolen** Signature: **[Signature]** Date: **8/2/08** Time: **11:42**

Received by: (Signature and Printed Name) **John Nolen** Date: **8/2/08** Time: **11:42**

Relinquished by: (Signature and Printed Name) **John Nolen** Date: **8/2/08** Time: **11:42**

Relinquished by: (Signature and Printed Name) **John Nolen** Date: **8/2/08** Time: **11:42**



CHAIN OF CUSTODY RECORD

Page 2 of 3

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCC Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt	
Y	N	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Condition	<input type="checkbox"/> Y
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (NOA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP, deg C:
		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/>

Company: **TECHNOLOGICAL SOLUTIONS, INC.** Address: **9635 RIVERVIEW DR** City: **IRVINE** State: **CA** Zip: **92618** Tel: **949-261-1110**

Attn: **JOHN D'AMICO** Email: **JD@TECHSOL.COM** SEND REPORT TO: **JOHN D'AMICO** Email: **JD@TECHSOL.COM** SEND INVOICE TO: **JOHN D'AMICO** Email: **JD@TECHSOL.COM**

Company: **TECHNOLOGICAL SOLUTIONS, INC.** Address: **9635 RIVERVIEW DR** City: **IRVINE** State: **CA** Zip: **92618** Tel: **949-261-1110**

Attn: **JOHN D'AMICO** Email: **JD@TECHSOL.COM** SEND REPORT TO: **JOHN D'AMICO** Email: **JD@TECHSOL.COM** SEND INVOICE TO: **JOHN D'AMICO** Email: **JD@TECHSOL.COM**

ITEM	Lab No.	Sample ID / Location	Date	Time	Special Instructions/Comments
1	Q-1581-3.5	Q-1581-3.5	3-26-17	0836	
2	Q-1581-4.5	Q-1581-4.5		0839	
3	IM-4-3.5	IM-4-3.5		0832	
4	IM-4-3.5	IM-4-3.5		0913	
5	IM-5-4.5	IM-5-4.5		0910	
6	IM-5-4.5	IM-5-4.5		0927	
7	IM-4-3.5	IM-4-3.5		0936	
8	IM-30-4.5	IM-30-4.5		0945	
9	GA-2-3.5	GA-2-3.5		0957	
10	GA-2-4.5	GA-2-4.5		1009	

Project Name: **PROJECT VULTAS** Quote No: **100816**

Project No: **100816** PO #:

Sampler: **100816**

Lab No: **100816**

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **John D'Amico** Date: **3/26/17** Time: **11:45**

Submitter Print Name: **John D'Amico** Signature: **John D'Amico** Date: **3/26/17** Time: **11:45**

Relinquished by: (Signature and Printed Name) **John D'Amico** Date: **3/26/17** Time: **11:45**

Relinquished by: (Signature and Printed Name) **John D'Amico** Date: **3/26/17** Time: **11:45**

Relinquished by: (Signature and Printed Name) **John D'Amico** Date: **3/26/17** Time: **11:45**

CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver. 20130715

Method of Transport		Sample Conditions Upon Receipt	
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	<input type="checkbox"/> Condition	<input type="checkbox"/> Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 5. # OF SAMPLES MATCH COC
<input type="checkbox"/> GSO	<input type="checkbox"/> Other:	<input type="checkbox"/> 2. HEADSPACE (VOA)	<input type="checkbox"/> 6. PRESERVED
<input type="checkbox"/> Other:		<input type="checkbox"/> 3. CONTAINER INTACT	<input type="checkbox"/> 7. COOLER TEMP. deg C
<input type="checkbox"/> Other:		<input type="checkbox"/> 4. SEALED	<input type="checkbox"/> 8. OTHER

Company: **ATC SOLUTIONS, INC.** Address: **2883 W. STATE ST. #100** City: **LOS ANGELES, CA** State: **CA** Zip: **90007** Tel: **(310) 471-1111** Fax: **(310) 471-1112**

Attn: **JOHN NORDENSTAM** Email: **john@atcsolutions.com**

Company: **ATC SOLUTIONS, INC.** Address: **2883 W. STATE ST. #100** City: **LOS ANGELES, CA** State: **CA** Zip: **90007** Tel: **(310) 471-1111** Fax: **(310) 471-1112**

Attn: **JOHN NORDENSTAM** Email: **john@atcsolutions.com**

SEND REPORT TO: ☐ same as SEND REPORT TO

ITEM	Lab No.	Sample Description		Date	Time	Encircle or Write Requested Analysis										Encircle Sample Matrix		Container	QA/QC	
		Sample ID / Location	Special Instructions/Comments			8260 (GC/MS)	8210 (GC/MS)	8211 (GC/MS)	8212 (GC/MS)	8213 (GC/MS)	8214 (GC/MS)	8215 (GC/MS)	8216 (GC/MS)	8217 (GC/MS)	8218 (GC/MS)	8219 (GC/MS)	8220 (GC/MS)			
1	265641/TA02	265641/TA02	PO# 100816	7/26/17	10:31															
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter: **ATC SOLUTIONS, INC.** Signature: **[Signature]** Date: **7/26/17** Time: **11:12**

Relinquished by: (Signature and Printed Name) **JOHN NORDENSTAM** Date: **7/26/17** Time: **11:12**

Relinquished by: (Signature and Printed Name) **JOHN NORDENSTAM** Date: **7/26/17** Time: **11:12**

Relinquished by: (Signature and Printed Name) **JOHN NORDENSTAM** Date: **7/26/17** Time: **11:12**



April 03, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701288
Client Reference : Roosevelt HS, 265642

Enclosed are the results for sample(s) received on March 26, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IDW SOIL A	1701288-01	Soil	3/26/17 10:45	3/26/17 11:46
IDW SOIL COMPOSITE	1701288-05	Soil	3/26/17 0:00	3/26/17 11:46

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
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Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IDW SOIL A

Lab ID: 1701288-01

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.5	0.30	1	B7C0866	03/27/2017	03/27/17 19:18	
Surrogate: 4-Bromofluorobenzene	90.0 %		36 - 125		B7C0866	03/27/2017	03/27/17 19:18	



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TRC
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Irvine, CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IDW SOIL COMPOSITE

Lab ID: 1701288-05

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B7C1055	03/31/2017	04/03/17 11:27	
Arsenic	7.0	1.0	0.70	1	B7C1055	03/31/2017	04/03/17 11:27	
Barium	100	1.0	0.10	1	B7C1055	03/31/2017	04/03/17 11:27	
Beryllium	0.31	1.0	0.04	1	B7C1055	03/31/2017	04/03/17 11:27	J
Cadmium	ND	1.0	0.09	1	B7C1055	03/31/2017	04/03/17 11:27	
Chromium	13	1.0	0.12	1	B7C1055	03/31/2017	04/03/17 11:27	
Cobalt	5.7	1.0	0.10	1	B7C1055	03/31/2017	04/03/17 11:27	
Copper	15	2.0	0.11	1	B7C1055	03/31/2017	04/03/17 11:27	
Lead	16	1.0	0.11	1	B7C1055	03/31/2017	04/03/17 11:27	
Molybdenum	0.16	1.0	0.13	1	B7C1055	03/31/2017	04/03/17 11:27	J
Nickel	11	1.0	0.10	1	B7C1055	03/31/2017	04/03/17 11:27	
Selenium	ND	1.0	0.88	1	B7C1055	03/31/2017	04/03/17 11:27	
Silver	ND	1.0	0.04	1	B7C1055	03/31/2017	04/03/17 11:27	
Thallium	ND	1.0	0.42	1	B7C1055	03/31/2017	04/03/17 11:27	
Vanadium	25	1.0	0.19	1	B7C1055	03/31/2017	04/03/17 11:27	
Zinc	44	1.0	0.18	1	B7C1055	03/31/2017	04/03/17 11:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.06	0.10	0.02	1	B7C1057	03/31/2017	04/03/17 14:15	J

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C10-C22	56	20	20	20	B7C0918	03/28/2017	03/29/17 22:19	
C23-C36	690	20	20	20	B7C0918	03/28/2017	03/29/17 22:19	
Surrogate: p-Terphenyl	0%	18 - 130			B7C0918	03/28/2017	03/29/17 22:19	S4



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID IDW SOIL COMPOSITE

Lab ID: 1701288-05

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.22	1	B7C0882	03/27/2017	03/28/17 13:11	
4,4'-DDE	0.88	2.0	0.20	1	B7C0882	03/27/2017	03/28/17 13:11	J
4,4'-DDT	0.60	2.0	0.13	1	B7C0882	03/27/2017	03/28/17 13:11	J
Aldrin	ND	1.0	0.27	1	B7C0882	03/27/2017	03/28/17 13:11	
alpha-BHC	ND	1.0	0.20	1	B7C0882	03/27/2017	03/28/17 13:11	
alpha-Chlordane	0.46	1.0	0.21	1	B7C0882	03/27/2017	03/28/17 13:11	J
beta-BHC	ND	1.0	0.23	1	B7C0882	03/27/2017	03/28/17 13:11	
Chlordane	5.0	8.5	0.90	1	B7C0882	03/27/2017	03/28/17 13:11	J
delta-BHC	ND	1.0	0.21	1	B7C0882	03/27/2017	03/28/17 13:11	
Dieldrin	ND	2.0	0.25	1	B7C0882	03/27/2017	03/28/17 13:11	
Endosulfan I	ND	1.0	0.21	1	B7C0882	03/27/2017	03/28/17 13:11	
Endosulfan II	ND	2.0	0.22	1	B7C0882	03/27/2017	03/28/17 13:11	
Endosulfan sulfate	ND	2.0	0.21	1	B7C0882	03/27/2017	03/28/17 13:11	
Endrin	ND	2.0	0.23	1	B7C0882	03/27/2017	03/28/17 13:11	
Endrin aldehyde	ND	2.0	0.28	1	B7C0882	03/27/2017	03/28/17 13:11	
Endrin ketone	ND	2.0	0.20	1	B7C0882	03/27/2017	03/28/17 13:11	
gamma-BHC	ND	1.0	0.20	1	B7C0882	03/27/2017	03/28/17 13:11	
gamma-Chlordane	0.39	1.0	0.23	1	B7C0882	03/27/2017	03/28/17 13:11	J
Heptachlor	ND	1.0	0.19	1	B7C0882	03/27/2017	03/28/17 13:11	
Heptachlor epoxide	ND	1.0	0.20	1	B7C0882	03/27/2017	03/28/17 13:11	
Methoxychlor	ND	5.0	0.18	1	B7C0882	03/27/2017	03/28/17 13:11	
Toxaphene	ND	50	8.2	1	B7C0882	03/27/2017	03/28/17 13:11	
<i>Surrogate: Decachlorobiphenyl</i>	<i>59.0 %</i>		<i>27 - 123</i>		B7C0882	03/27/2017	<i>03/28/17 13:11</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>59.5 %</i>		<i>26 - 108</i>		B7C0882	03/27/2017	<i>03/28/17 13:11</i>	



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 04/03/2017

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1055 - EPA 3050B_S

Blank (B7C1055-BLK1)

Prepared: 3/31/2017 Analyzed: 4/3/2017

Antimony	ND	2.0	0.32
Arsenic	ND	1.0	0.70
Barium	ND	1.0	0.10
Beryllium	ND	1.0	0.04
Cadmium	ND	1.0	0.09
Chromium	0.597992	1.0	0.12
Cobalt	ND	1.0	0.10
Copper	ND	2.0	0.11
Lead	ND	1.0	0.11
Molybdenum	ND	1.0	0.13
Nickel	ND	1.0	0.10
Selenium	ND	1.0	0.88
Silver	ND	1.0	0.04
Thallium	ND	1.0	0.42
Vanadium	ND	1.0	0.19
Zinc	ND	1.0	0.18

J

LCS (B7C1055-BS1)

Prepared: 3/31/2017 Analyzed: 4/3/2017

Antimony	45.4360	2.0	0.32	50.0000	90.9	80 - 120
Arsenic	44.3420	1.0	0.70	50.0000	88.7	80 - 120
Barium	46.6386	1.0	0.10	50.0000	93.3	80 - 120
Beryllium	45.3669	1.0	0.04	50.0000	90.7	80 - 120
Cadmium	43.8356	1.0	0.09	50.0000	87.7	80 - 120
Chromium	47.0271	1.0	0.12	50.0000	94.1	80 - 120
Cobalt	46.9260	1.0	0.10	50.0000	93.9	80 - 120
Copper	47.1545	2.0	0.11	50.0000	94.3	80 - 120
Lead	44.3773	1.0	0.11	50.0000	88.8	80 - 120
Molybdenum	44.9074	1.0	0.13	50.0000	89.8	80 - 120
Nickel	45.4772	1.0	0.10	50.0000	91.0	80 - 120
Selenium	42.6827	1.0	0.88	50.0000	85.4	80 - 120
Silver	44.7510	1.0	0.04	50.0000	89.5	80 - 120
Thallium	43.5407	1.0	0.42	50.0000	87.1	80 - 120
Vanadium	47.8767	1.0	0.19	50.0000	95.8	80 - 120
Zinc	42.8064	1.0	0.18	50.0000	85.6	80 - 120

Duplicate (B7C1055-DUP1)

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Antimony	ND	2.0	0.32	ND	NR	20
Arsenic	7.53788	1.0	0.70	7.02823	7.00	20
Barium	96.9920	1.0	0.10	101.289	4.33	20
Beryllium	0.292177	1.0	0.04	0.312517	6.73	20

J



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1055 - EPA 3050B_S (continued)

Duplicate (B7C1055-DUP1) - Continued

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Cadmium	ND	1.0	0.09		ND			NR	20	
Chromium	12.3854	1.0	0.12		13.1376			5.89	20	
Cobalt	5.30791	1.0	0.10		5.69563			7.05	20	
Copper	15.1867	2.0	0.11		15.2913			0.686	20	
Lead	16.6977	1.0	0.11		15.6468			6.50	20	
Molybdenum	0.186634	1.0	0.13		0.156271			17.7	20	J
Nickel	11.2653	1.0	0.10		10.9944			2.43	20	
Selenium	ND	1.0	0.88		ND			NR	20	
Silver	ND	1.0	0.04		ND			NR	20	
Thallium	ND	1.0	0.42		ND			NR	20	
Vanadium	24.2275	1.0	0.19		24.9738			3.03	20	
Zinc	46.7216	1.0	0.18		44.1638			5.63	20	

Matrix Spike (B7C1055-MS1)

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Antimony	70.0988	2.0	0.32	125.000	ND	56.1	34 - 103			
Arsenic	93.1237	1.0	0.70	125.000	7.02823	68.9	59 - 103			
Barium	203.302	1.0	0.10	125.000	101.289	81.6	30 - 134			
Beryllium	89.1742	1.0	0.04	125.000	0.312517	71.1	62 - 105			
Cadmium	82.5561	1.0	0.09	125.000	ND	66.0	53 - 102			
Chromium	105.275	1.0	0.12	125.000	13.1376	73.7	51 - 111			
Cobalt	90.3335	1.0	0.10	125.000	5.69563	67.7	55 - 105			
Copper	109.216	2.0	0.11	125.000	15.2913	75.1	53 - 126			
Lead	101.616	1.0	0.11	125.000	15.6468	68.8	34 - 129			
Molybdenum	83.9996	1.0	0.13	125.000	0.156271	67.1	57 - 105			
Nickel	91.8662	1.0	0.10	125.000	10.9944	64.7	49 - 109			
Selenium	82.1474	1.0	0.88	125.000	ND	65.7	57 - 99			
Silver	90.1773	1.0	0.04	125.000	ND	72.1	64 - 105			
Thallium	79.1170	1.0	0.42	125.000	ND	63.3	46 - 105			
Vanadium	117.934	1.0	0.19	125.000	24.9738	74.4	60 - 109			
Zinc	135.405	1.0	0.18	125.000	44.1638	73.0	29 - 122			

Matrix Spike Dup (B7C1055-MSD1)

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Antimony	75.2457	2.0	0.32	125.000	ND	60.2	34 - 103	7.08	20	
Arsenic	97.5348	1.0	0.70	125.000	7.02823	72.4	59 - 103	4.63	20	
Barium	207.543	1.0	0.10	125.000	101.289	85.0	30 - 134	2.06	20	
Beryllium	92.2110	1.0	0.04	125.000	0.312517	73.5	62 - 105	3.35	20	
Cadmium	85.8984	1.0	0.09	125.000	ND	68.7	53 - 102	3.97	20	
Chromium	107.563	1.0	0.12	125.000	13.1376	75.5	51 - 111	2.15	20	
Cobalt	96.9280	1.0	0.10	125.000	5.69563	73.0	55 - 105	7.04	20	
Copper	114.492	2.0	0.11	125.000	15.2913	79.4	53 - 126	4.72	20	
Lead	107.099	1.0	0.11	125.000	15.6468	73.2	34 - 129	5.25	20	
Molybdenum	89.4056	1.0	0.13	125.000	0.156271	71.4	57 - 105	6.24	20	



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Reported : 04/03/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1055 - EPA 3050B_S (continued)

Matrix Spike Dup (B7C1055-MSD1) - Continued

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Nickel	94.9426	1.0	0.10	125.000	10.9944	67.2	49 - 109	3.29	20	
Selenium	86.2802	1.0	0.88	125.000	ND	69.0	57 - 99	4.91	20	
Silver	93.9695	1.0	0.04	125.000	ND	75.2	64 - 105	4.12	20	
Thallium	84.6490	1.0	0.42	125.000	ND	67.7	46 - 105	6.76	20	
Vanadium	123.793	1.0	0.19	125.000	24.9738	79.1	60 - 109	4.85	20	
Zinc	137.036	1.0	0.18	125.000	44.1638	74.3	29 - 122	1.20	20	



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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C1057 - EPA 7471_S

Blank (B7C1057-BLK1)

Prepared: 3/31/2017 Analyzed: 4/3/2017

Mercury ND 0.10 0.02

LCS (B7C1057-BS1)

Prepared: 3/31/2017 Analyzed: 4/3/2017

Mercury 0.843362 0.10 0.02 0.833333 101 80 - 120

Duplicate (B7C1057-DUP1)

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Mercury 0.062552 0.10 0.02 0.061439 1.80 20 J

Matrix Spike (B7C1057-MS1)

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Mercury 0.921227 0.10 0.02 0.833333 0.061439 103 70 - 130

Matrix Spike Dup (B7C1057-MSD1)

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Mercury 0.890635 0.10 0.02 0.833333 0.061439 99.5 70 - 130 3.38 20

Post Spike (B7C1057-PS1)

Source: 1701288-05

Prepared: 3/31/2017 Analyzed: 4/3/2017

Mercury 5.6529E-3 5.00000E-3 0.000737 98.3 85 - 115



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Reported : 04/03/2017

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0866 - GCVOA_S

Blank (B7C0866-BLK1)

Prepared: 3/27/2017 Analyzed: 3/27/2017

Gasoline Range Organics	ND	1.0	0.20							
Surrogate: 4-Bromofluorobenzene	0.2036			0.200000		102	36 - 125			

LCS (B7C0866-BS1)

Prepared: 3/27/2017 Analyzed: 3/27/2017

Gasoline Range Organics	4.42600	1.0	0.20	5.00000		88.5	70 - 130			
Surrogate: 4-Bromofluorobenzene	0.2052			0.200000		103	36 - 125			

Duplicate (B7C0866-DUP1)

Source: 1701270-51

Prepared: 3/27/2017 Analyzed: 3/27/2017

Gasoline Range Organics	ND	1.0	0.20		ND			NR	20	
Surrogate: 4-Bromofluorobenzene	0.1002			0.200000		50.1	36 - 125			

Matrix Spike (B7C0866-MS1)

Source: 1701149-09

Prepared: 3/27/2017 Analyzed: 3/27/2017

Gasoline Range Organics	3.96100	1.0	0.20	5.00000	ND	79.2	32 - 161			
Surrogate: 4-Bromofluorobenzene	0.2058			0.200000		103	36 - 125			

Matrix Spike Dup (B7C0866-MSD1)

Source: 1701149-09

Prepared: 3/27/2017 Analyzed: 3/27/2017

Gasoline Range Organics	4.01800	1.0	0.20	5.00000	ND	80.4	32 - 161	1.43	20	
Surrogate: 4-Bromofluorobenzene	0.2060			0.200000		103	36 - 125			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0918 - GCSEMI_DRO_LL_S

Blank (B7C0918-BLK1)

Prepared: 3/28/2017 Analyzed: 3/30/2017

C10-C22	ND	1.0	1.0
C23-C36	ND	1.0	1.0

Surrogate: <i>p</i> -Terphenyl	3.056		2.66667	115	18 - 130
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LCS (B7C0918-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

DRO	51.6273	1.0	1.0	66.6667	77.4	34 - 120
Surrogate: <i>p</i> -Terphenyl	3.984			5.33333	74.7	18 - 130

Duplicate (B7C0918-DUP1)

Source: 1701288-05

Prepared: 3/28/2017 Analyzed: 3/29/2017

DRO	213.380	20	20	215.673	1.07	20
Surrogate: <i>p</i> -Terphenyl	0.000		2.66667	NR	18 - 130	S4

Matrix Spike (B7C0918-MS1)

Source: 1701288-05

Prepared: 3/28/2017 Analyzed: 3/29/2017

DRO	197.073	20	20	33.3333	215.673	-55.8	12 - 132	M2
Surrogate: <i>p</i> -Terphenyl	0.000			2.66667		NR	18 - 130	S4

Matrix Spike Dup (B7C0918-MSD1)

Source: 1701288-05

Prepared: 3/28/2017 Analyzed: 3/29/2017

DRO	233.867	20	20	33.3333	215.673	54.6	12 - 132	17.1	20
Surrogate: <i>p</i> -Terphenyl	0.000			2.66667		NR	18 - 130		S4



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0882 - GCSEMI_PCB/PEST_S

Blank (B7C0882-BLK1)

Prepared: 3/27/2017 Analyzed: 3/28/2017

4,4'-DDD	ND	2.0	0.22
4,4'-DDD [2C]	ND	2.0	0.22
4,4'-DDE	ND	2.0	0.20
4,4'-DDE [2C]	ND	2.0	0.20
4,4'-DDT	ND	2.0	0.13
4,4'-DDT [2C]	ND	2.0	0.13
Aldrin	ND	1.0	0.27
Aldrin [2C]	ND	1.0	0.27
alpha-BHC	ND	1.0	0.20
alpha-BHC [2C]	ND	1.0	0.20
alpha-Chlordane	ND	1.0	0.21
alpha-Chlordane [2C]	ND	1.0	0.21
beta-BHC	ND	1.0	0.23
beta-BHC [2C]	ND	1.0	0.23
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.21
delta-BHC [2C]	ND	1.0	0.21
Dieldrin	ND	2.0	0.25
Dieldrin [2C]	ND	2.0	0.25
Endosulfan I	ND	1.0	0.21
Endosulfan I [2C]	ND	1.0	0.21
Endosulfan II	ND	2.0	0.22
Endosulfan II [2C]	ND	2.0	0.22
Endosulfan sulfate	ND	2.0	0.21
Endosulfan Sulfate [2C]	ND	2.0	0.21
Endrin	ND	2.0	0.23
Endrin [2C]	ND	2.0	0.23
Endrin aldehyde	ND	2.0	0.28
Endrin aldehyde [2C]	ND	2.0	0.28
Endrin ketone	ND	2.0	0.20
Endrin ketone [2C]	ND	2.0	0.20
gamma-BHC	ND	1.0	0.20
gamma-BHC [2C]	ND	1.0	0.20
gamma-Chlordane	ND	1.0	0.23
gamma-Chlordane [2C]	ND	1.0	0.23
Heptachlor	ND	1.0	0.19
Heptachlor [2C]	ND	1.0	0.19
Heptachlor epoxide	ND	1.0	0.20
Heptachlor epoxide [2C]	ND	1.0	0.20
Methoxychlor	ND	5.0	0.18



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0882 - GCSEMI_PCB/PEST_S (continued)

Blank (B7C0882-BLK1) - Continued

Prepared: 3/27/2017 Analyzed: 3/28/2017

Methoxychlor [2C]	ND	5.0	0.18
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>13.81</i>			<i>16.6667</i>	<i>82.9</i>	<i>27 - 123</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>12.57</i>			<i>16.6667</i>	<i>75.4</i>	<i>27 - 123</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.02</i>			<i>16.6667</i>	<i>84.1</i>	<i>26 - 108</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>15.84</i>			<i>16.6667</i>	<i>95.0</i>	<i>26 - 108</i>

LCS (B7C0882-BS1)

Prepared: 3/27/2017 Analyzed: 3/28/2017

4,4'-DDD	14.4178	2.0	0.22	16.6667	86.5	53 - 125
4,4'-DDD [2C]	15.3253	2.0	0.22	16.6667	92.0	53 - 125
4,4'-DDE	14.7908	2.0	0.20	16.6667	88.7	54 - 113
4,4'-DDE [2C]	13.7362	2.0	0.20	16.6667	82.4	54 - 113
4,4'-DDT	13.5125	2.0	0.13	16.6667	81.1	25 - 127
4,4'-DDT [2C]	11.1268	2.0	0.13	16.6667	66.8	25 - 127
Aldrin	14.8498	1.0	0.27	16.6667	89.1	59 - 107
Aldrin [2C]	14.5552	1.0	0.27	16.6667	87.3	59 - 107
alpha-BHC	14.8352	1.0	0.20	16.6667	89.0	59 - 104
alpha-BHC [2C]	14.7797	1.0	0.20	16.6667	88.7	59 - 104
alpha-Chlordane	15.3210	1.0	0.21	16.6667	91.9	54 - 110
alpha-Chlordane [2C]	14.6978	1.0	0.21	16.6667	88.2	54 - 110
beta-BHC	14.2323	1.0	0.23	16.6667	85.4	57 - 103
beta-BHC [2C]	14.5818	1.0	0.23	16.6667	87.5	57 - 103
delta-BHC	12.2578	1.0	0.21	16.6667	73.5	16 - 120
delta-BHC [2C]	12.3593	1.0	0.21	16.6667	74.2	16 - 120
Dieldrin	15.2818	2.0	0.25	16.6667	91.7	61 - 109
Dieldrin [2C]	14.2268	2.0	0.25	16.6667	85.4	61 - 109
Endosulfan I	15.0625	1.0	0.21	16.6667	90.4	60 - 106
Endosulfan I [2C]	15.1362	1.0	0.21	16.6667	90.8	60 - 106
Endosulfan II	16.1108	2.0	0.22	16.6667	96.7	59 - 108
Endosulfan II [2C]	14.9157	2.0	0.22	16.6667	89.5	59 - 108
Endosulfan sulfate	13.8830	2.0	0.21	16.6667	83.3	54 - 110
Endosulfan Sulfate [2C]	13.6273	2.0	0.21	16.6667	81.8	54 - 110
Endrin	16.6492	2.0	0.23	16.6667	99.9	63 - 112
Endrin [2C]	16.3630	2.0	0.23	16.6667	98.2	63 - 112
Endrin aldehyde	14.6605	2.0	0.28	16.6667	88.0	64 - 119
Endrin aldehyde [2C]	14.4020	2.0	0.28	16.6667	86.4	64 - 119
Endrin ketone	13.5390	2.0	0.20	16.6667	81.2	54 - 115
Endrin ketone [2C]	12.2870	2.0	0.20	16.6667	73.7	54 - 115
gamma-BHC	14.9728	1.0	0.20	16.6667	89.8	60 - 107
gamma-BHC [2C]	14.7442	1.0	0.20	16.6667	88.5	60 - 107



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Reported : 04/03/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0882 - GCSEMI_PCB/PEST_S (continued)

LCS (B7C0882-BS1) - Continued

Prepared: 3/27/2017 Analyzed: 3/28/2017

gamma-Chlordane	14.8190	1.0	0.23	16.6667		88.9	57 - 106		
gamma-Chlordane [2C]	14.4948	1.0	0.23	16.6667		87.0	57 - 106		
Heptachlor	15.9062	1.0	0.19	16.6667		95.4	54 - 114		
Heptachlor [2C]	14.8815	1.0	0.19	16.6667		89.3	54 - 114		
Heptachlor epoxide	14.4778	1.0	0.20	16.6667		86.9	61 - 106		
Heptachlor epoxide [2C]	14.1037	1.0	0.20	16.6667		84.6	61 - 106		
Methoxychlor	12.6137	5.0	0.18	16.6667		75.7	18 - 138		
Methoxychlor [2C]	10.1600	5.0	0.18	16.6667		61.0	18 - 138		
Surrogate: Decachlorobiphenyl	13.77			16.6667		82.6	27 - 123		
Surrogate: Decachlorobiphenyl [	12.55			16.6667		75.3	27 - 123		
Surrogate: Tetrachloro-m-xylene	14.48			16.6667		86.9	26 - 108		
Surrogate: Tetrachloro-m-xylene	15.03			16.6667		90.2	26 - 108		

Duplicate (B7C0882-DUP1)

Source: 1701288-05

Prepared: 3/27/2017 Analyzed: 3/28/2017

4,4'-DDD	ND	2.0	0.22		ND			20	
4,4'-DDD [2C]	ND	2.0	0.22		ND			20	
4,4'-DDE	0.938333	2.0	0.20		0.879167		6.51	20	J
4,4'-DDE [2C]	0.723833	2.0	0.20		0.726333		0.345	20	J
4,4'-DDT	0.707667	2.0	0.13		0.604667		15.7	20	J
4,4'-DDT [2C]	0.792833	2.0	0.13		0.598333		28.0	20	R3, J
Aldrin	ND	1.0	0.27		ND			20	
Aldrin [2C]	ND	1.0	0.27		ND			20	
alpha-BHC	ND	1.0	0.20		ND			20	
alpha-BHC [2C]	ND	1.0	0.20		ND			20	
alpha-Chlordane	0.445333	1.0	0.21		0.463500		4.00	20	J
alpha-Chlordane [2C]	0.335500	1.0	0.21		0.338333		0.841	20	J
beta-BHC	ND	1.0	0.23		ND			20	
beta-BHC [2C]	ND	1.0	0.23		ND			20	
Chlordane	4.99000	8.5	0.90		5.03700		0.937	20	J
Chlordane [2C]	3.76300	8.5	0.90		4.71433		22.4	20	J
delta-BHC	ND	1.0	0.21		ND			20	
delta-BHC [2C]	ND	1.0	0.21		ND			20	
Dieldrin	ND	2.0	0.25		ND			20	
Dieldrin [2C]	ND	2.0	0.25		ND			20	
Endosulfan I	ND	1.0	0.21		ND			20	
Endosulfan I [2C]	ND	1.0	0.21		ND			20	
Endosulfan II	ND	2.0	0.22		ND			20	
Endosulfan II [2C]	ND	2.0	0.22		ND			20	
Endosulfan sulfate	ND	2.0	0.21		ND			20	
Endosulfan Sulfate [2C]	ND	2.0	0.21		ND			20	
Endrin	ND	2.0	0.23		ND			20	



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Reported : 04/03/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0882 - GCSEMI_PCB/PEST_S (continued)

Duplicate (B7C0882-DUP1) - Continued

Source: 1701288-05

Prepared: 3/27/2017 Analyzed: 3/28/2017

Endrin [2C]	ND	2.0	0.23		ND				20	
Endrin aldehyde	ND	2.0	0.28		ND				20	
Endrin aldehyde [2C]	ND	2.0	0.28		ND				20	
Endrin ketone	ND	2.0	0.20		ND				20	
Endrin ketone [2C]	ND	2.0	0.20		ND				20	
gamma-BHC	ND	1.0	0.20		ND				20	
gamma-BHC [2C]	ND	1.0	0.20		ND				20	
gamma-Chlordane	0.373833	1.0	0.23		0.388667			3.89	20	J
gamma-Chlordane [2C]	0.436000	1.0	0.23		0.249000			54.6	20	R3, J
Heptachlor	ND	1.0	0.19		ND				20	
Heptachlor [2C]	ND	1.0	0.19		ND				20	
Heptachlor epoxide	ND	1.0	0.20		ND				20	
Heptachlor epoxide [2C]	ND	1.0	0.20		ND				20	
Methoxychlor	ND	5.0	0.18		ND				20	
Methoxychlor [2C]	ND	5.0	0.18		ND				20	

Surrogate: Decachlorobiphenyl	9.099			16.6667		54.6	27 - 123			
Surrogate: Decachlorobiphenyl [	9.878			16.6667		59.3	27 - 123			
Surrogate: Tetrachloro-m-xylene	9.381			16.6667		56.3	26 - 108			
Surrogate: Tetrachloro-m-xylene	8.199			16.6667		49.2	26 - 108			

Matrix Spike (B7C0882-MS1)

Source: 1701288-05

Prepared: 3/27/2017 Analyzed: 3/28/2017

4,4'-DDD	8.15133	2.0	0.22	16.6667	ND	48.9	25 - 141			
4,4'-DDD [2C]	8.00750	2.0	0.22	16.6667	ND	48.0	25 - 141			
4,4'-DDE	9.05117	2.0	0.20	16.6667	0.879167	49.0	22 - 141			
4,4'-DDE [2C]	8.45833	2.0	0.20	16.6667	0.726333	46.4	22 - 141			
4,4'-DDT	9.79633	2.0	0.13	16.6667	0.604667	55.1	15 - 136			
4,4'-DDT [2C]	9.03017	2.0	0.13	16.6667	0.598333	50.6	15 - 136			
Aldrin	8.68500	1.0	0.27	16.6667	ND	52.1	33 - 118			
Aldrin [2C]	8.83700	1.0	0.27	16.6667	ND	53.0	33 - 118			
alpha-BHC	8.63817	1.0	0.20	16.6667	ND	51.8	30 - 116			
alpha-BHC [2C]	10.1618	1.0	0.20	16.6667	ND	61.0	30 - 116			
alpha-Chlordane	8.60183	1.0	0.21	16.6667	0.463500	48.8	30 - 123			
alpha-Chlordane [2C]	8.35450	1.0	0.21	16.6667	0.338333	48.1	30 - 123			
beta-BHC	7.51600	1.0	0.23	16.6667	ND	45.1	24 - 121			
beta-BHC [2C]	8.76100	1.0	0.23	16.6667	ND	52.6	24 - 121			
delta-BHC	6.38750	1.0	0.21	16.6667	ND	38.3	7 - 120			
delta-BHC [2C]	7.57850	1.0	0.21	16.6667	ND	45.5	7 - 120			
Dieldrin	8.52517	2.0	0.25	16.6667	ND	51.2	25 - 136			
Dieldrin [2C]	7.87067	2.0	0.25	16.6667	ND	47.2	25 - 136			
Endosulfan I	8.27700	1.0	0.21	16.6667	ND	49.7	18 - 134			
Endosulfan I [2C]	7.60450	1.0	0.21	16.6667	ND	45.6	18 - 134			



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7C0882 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B7C0882-MS1) - Continued

Source: 1701288-05

Prepared: 3/27/2017 Analyzed: 3/28/2017

Endosulfan II	8.12667	2.0	0.22	16.6667	ND	48.8	28 - 128		
Endosulfan II [2C]	7.47250	2.0	0.22	16.6667	ND	44.8	28 - 128		
Endosulfan sulfate	7.43800	2.0	0.21	16.6667	ND	44.6	5 - 145		
Endosulfan Sulfate [2C]	6.94700	2.0	0.21	16.6667	ND	41.7	5 - 145		
Endrin	9.35100	2.0	0.23	16.6667	ND	56.1	26 - 142		
Endrin [2C]	9.18400	2.0	0.23	16.6667	ND	55.1	26 - 142		
Endrin aldehyde	6.54167	2.0	0.28	16.6667	ND	39.2	8 - 146		
Endrin aldehyde [2C]	6.63333	2.0	0.28	16.6667	ND	39.8	8 - 146		
Endrin ketone	7.86417	2.0	0.20	16.6667	ND	47.2	16 - 139		
Endrin ketone [2C]	8.24617	2.0	0.20	16.6667	ND	49.5	16 - 139		
gamma-BHC	9.35383	1.0	0.20	16.6667	ND	56.1	30 - 122		
gamma-BHC [2C]	9.83700	1.0	0.20	16.6667	ND	59.0	30 - 122		
gamma-Chlordane	8.83783	1.0	0.23	16.6667	0.388667	50.7	18 - 132		
gamma-Chlordane [2C]	8.06567	1.0	0.23	16.6667	0.249000	46.9	18 - 132		
Heptachlor	9.75050	1.0	0.19	16.6667	ND	58.5	34 - 122		
Heptachlor [2C]	10.0788	1.0	0.19	16.6667	ND	60.5	34 - 122		
Heptachlor epoxide	8.13617	1.0	0.20	16.6667	ND	48.8	21 - 135		
Heptachlor epoxide [2C]	7.85667	1.0	0.20	16.6667	ND	47.1	21 - 135		
Methoxychlor	8.78283	5.0	0.18	16.6667	ND	52.7	8 - 162		
Methoxychlor [2C]	9.18050	5.0	0.18	16.6667	ND	55.1	8 - 162		
Surrogate: Decachlorobiphenyl	9.823			16.6667		58.9	27 - 123		
Surrogate: Decachlorobiphenyl [	11.65			16.6667		69.9	27 - 123		
Surrogate: Tetrachloro-m-xylene	10.35			16.6667		62.1	26 - 108		
Surrogate: Tetrachloro-m-xylene	12.10			16.6667		72.6	26 - 108		

Matrix Spike Dup (B7C0882-MSD1)

Source: 1701288-05

Prepared: 3/27/2017 Analyzed: 3/28/2017

4,4'-DDD	8.72200	2.0	0.22	16.6667	ND	52.3	25 - 141	6.76	20	
4,4'-DDD [2C]	8.27100	2.0	0.22	16.6667	ND	49.6	25 - 141	3.24	20	
4,4'-DDE	8.71767	2.0	0.20	16.6667	0.879167	47.0	22 - 141	3.75	20	
4,4'-DDE [2C]	7.66917	2.0	0.20	16.6667	0.726333	41.7	22 - 141	9.79	20	
4,4'-DDT	7.01483	2.0	0.13	16.6667	0.604667	38.5	15 - 136	33.1	20	R3
4,4'-DDT [2C]	6.57183	2.0	0.13	16.6667	0.598333	35.8	15 - 136	31.5	20	R3
Aldrin	8.03667	1.0	0.27	16.6667	ND	48.2	33 - 118	7.75	20	
Aldrin [2C]	7.84050	1.0	0.27	16.6667	ND	47.0	33 - 118	12.0	20	
alpha-BHC	8.22217	1.0	0.20	16.6667	ND	49.3	30 - 116	4.93	20	
alpha-BHC [2C]	8.71900	1.0	0.20	16.6667	ND	52.3	30 - 116	15.3	20	
alpha-Chlordane	7.95183	1.0	0.21	16.6667	0.463500	44.9	30 - 123	7.85	20	
alpha-Chlordane [2C]	7.35633	1.0	0.21	16.6667	0.338333	42.1	30 - 123	12.7	20	
beta-BHC	6.83700	1.0	0.23	16.6667	ND	41.0	24 - 121	9.46	20	
beta-BHC [2C]	7.56033	1.0	0.23	16.6667	ND	45.4	24 - 121	14.7	20	
delta-BHC	5.99867	1.0	0.21	16.6667	ND	36.0	7 - 120	6.28	20	



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Project Number : Roosevelt HS, 265642
Report To : John Nordenstam
Reported : 04/03/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7C0882 - GCSEMI_PCB/PEST_S (continued)										
Matrix Spike Dup (B7C0882-MSD1) - Continued			Source: 1701288-05		Prepared: 3/27/2017 Analyzed: 3/28/2017					
delta-BHC [2C]	6.30333	1.0	0.21	16.6667	ND	37.8	7 - 120	18.4	20	
Dieldrin	8.00450	2.0	0.25	16.6667	ND	48.0	25 - 136	6.30	20	
Dieldrin [2C]	7.21467	2.0	0.25	16.6667	ND	43.3	25 - 136	8.70	20	
Endosulfan I	7.70200	1.0	0.21	16.6667	ND	46.2	18 - 134	7.20	20	
Endosulfan I [2C]	6.77100	1.0	0.21	16.6667	ND	40.6	18 - 134	11.6	20	
Endosulfan II	7.58917	2.0	0.22	16.6667	ND	45.5	28 - 128	6.84	20	
Endosulfan II [2C]	6.74267	2.0	0.22	16.6667	ND	40.5	28 - 128	10.3	20	
Endosulfan sulfate	7.10633	2.0	0.21	16.6667	ND	42.6	5 - 145	4.56	20	
Endosulfan Sulfate [2C]	7.06950	2.0	0.21	16.6667	ND	42.4	5 - 145	1.75	20	
Endrin	8.60633	2.0	0.23	16.6667	ND	51.6	26 - 142	8.29	20	
Endrin [2C]	8.43750	2.0	0.23	16.6667	ND	50.6	26 - 142	8.47	20	
Endrin aldehyde	5.73967	2.0	0.28	16.6667	ND	34.4	8 - 146	13.1	20	
Endrin aldehyde [2C]	6.24883	2.0	0.28	16.6667	ND	37.5	8 - 146	5.97	20	
Endrin ketone	7.08450	2.0	0.20	16.6667	ND	42.5	16 - 139	10.4	20	
Endrin ketone [2C]	7.11983	2.0	0.20	16.6667	ND	42.7	16 - 139	14.7	20	
gamma-BHC	8.68300	1.0	0.20	16.6667	ND	52.1	30 - 122	7.44	20	
gamma-BHC [2C]	8.40583	1.0	0.20	16.6667	ND	50.4	30 - 122	15.7	20	
gamma-Chlordane	8.72550	1.0	0.23	16.6667	0.388667	50.0	18 - 132	1.28	20	
gamma-Chlordane [2C]	7.25500	1.0	0.23	16.6667	0.249000	42.0	18 - 132	10.6	20	
Heptachlor	8.73450	1.0	0.19	16.6667	ND	52.4	34 - 122	11.0	20	
Heptachlor [2C]	8.44433	1.0	0.19	16.6667	ND	50.7	34 - 122	17.6	20	
Heptachlor epoxide	7.66400	1.0	0.20	16.6667	ND	46.0	21 - 135	5.98	20	
Heptachlor epoxide [2C]	7.17467	1.0	0.20	16.6667	ND	43.0	21 - 135	9.07	20	
Methoxychlor	6.43483	5.0	0.18	16.6667	ND	38.6	8 - 162	30.9	20	R3
Methoxychlor [2C]	7.35683	5.0	0.18	16.6667	ND	44.1	8 - 162	22.1	20	R3
Surrogate: Decachlorobiphenyl	10.20			16.6667		61.2	27 - 123			
Surrogate: Decachlorobiphenyl [	12.61			16.6667		75.7	27 - 123			
Surrogate: Tetrachloro-m-xylene	10.09			16.6667		60.5	26 - 108			
Surrogate: Tetrachloro-m-xylene	9.625			16.6667		57.7	26 - 108			



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Project Number : Roosevelt HS, 265642

Report To : John Nordenstam

Reported : 04/03/2017

Notes and Definitions

S4	Surrogate was diluted out.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



April 03, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701289

Client Reference : ROOSEVELT HS, 265642/TA02

Enclosed are the results for sample(s) received on March 26, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CRI-5-3.5	1701289-01	Soil	3/26/17 7:30	3/26/17 11:45
CRI-4b1-0.5	1701289-02	Soil	3/26/17 7:50	3/26/17 11:45
CRI-4b1-2.5	1701289-03	Soil	3/26/17 7:55	3/26/17 11:45
AA2038-1-3.5	1701289-04	Soil	3/26/17 9:05	3/26/17 11:45
AA2038-2-3.5	1701289-05	Soil	3/26/17 8:15	3/26/17 11:45
AA2038-3-3.5	1701289-06	Soil	3/26/17 8:35	3/26/17 11:45
AA2038-4-3.5	1701289-07	Soil	3/26/17 8:50	3/26/17 11:45
AA2249-1-3.5	1701289-08	Soil	3/26/17 9:30	3/26/17 11:45
AA2249-2-3.5	1701289-09	Soil	3/26/17 9:45	3/26/17 11:45
CRI-2d1-0.5	1701289-10	Soil	3/26/17 9:55	3/26/17 11:45
CRI-2d1-2.5	1701289-11	Soil	3/26/17 9:57	3/26/17 11:45
AA2543-5-3.5	1701289-12	Soil	3/26/17 10:20	3/26/17 11:45
AA2543-6-3.5	1701289-13	Soil	3/26/17 10:05	3/26/17 11:45
EB-26-3/26/17	1701289-14	Water	3/26/17 10:40	3/26/17 11:45
CRI-4b1-0.5 Dup	1701289-15	Soil	3/26/17 7:50	3/26/17 11:45
AA2543-5-3.5 Dup	1701289-16	Soil	3/26/17 10:20	3/26/17 11:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID CRI-5-3.5

Lab ID: 1701289-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 13:57	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID CRI-4b1-0.5

Lab ID: 1701289-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B7C0936	03/28/2017	03/29/17 14:01	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID CRI-4b1-2.5

Lab ID: 1701289-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.5	1.0	0.11	1	B7C0936	03/28/2017	03/29/17 14:02	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID AA2038-1-3.5

Lab ID: 1701289-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:03	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID AA2038-2-3.5

Lab ID: 1701289-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	24	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:04	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID AA2038-3-3.5

Lab ID: 1701289-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:54	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID AA2038-4-3.5

Lab ID: 1701289-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:06	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID AA2249-1-3.5

Lab ID: 1701289-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	19	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:10	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID AA2249-2-3.5

Lab ID: 1701289-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	26	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:11	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID CRI-2d1-0.5

Lab ID: 1701289-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	160	1.0	0.11	1	B7C0936	03/28/2017	03/29/17 14:12	

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.057	20	B7C1079	04/02/2017	04/03/17 13:51	D1



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID CRI-2d1-2.5

Lab ID: 1701289-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.3	1.0	0.11	1	B7C0936	03/28/2017	03/29/17 14:13	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID AA2543-5-3.5

Lab ID: 1701289-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	27	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:14	



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Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID AA2543-6-3.5

Lab ID: 1701289-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:16	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID EB-26-3/26/17

Lab ID: 1701289-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.0090	0.010	0.0067	1	B7C1019	03/30/2017	03/30/17 16:38	J
Lead	ND	0.0050	0.0028	1	B7C1019	03/30/2017	03/30/17 16:38	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Client Sample ID CRI-4b1-0.5 Dup

Lab ID: 1701289-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	21	1.0	0.11	1	B7C0936	03/28/2017	03/29/17 14:17	



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Client Sample ID AA2543-5-3.5 Dup

Lab ID: 1701289-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	30	1.0	0.70	1	B7C0936	03/28/2017	03/29/17 14:18	



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7C0936 - EPA 3050B_S

Blank (B7C0936-BLK1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							

LCS (B7C0936-BS1)

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	42.5346	1.0	0.70	50.0000		85.1	80 - 120			
Lead	43.7952	1.0	0.11	50.0000		87.6	80 - 120			

Duplicate (B7C0936-DUP1)

Source: 1701289-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	1.40598	1.0	0.70		1.71413			19.8	20	
Lead	3.52968	1.0	0.11		3.80413			7.48	20	

Matrix Spike (B7C0936-MS1)

Source: 1701289-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	91.9454	1.0	0.70	125.000	1.71413	72.2	59 - 103			
Lead	94.6870	1.0	0.11	125.000	3.80413	72.7	34 - 129			

Matrix Spike Dup (B7C0936-MSD1)

Source: 1701289-01

Prepared: 3/28/2017 Analyzed: 3/29/2017

Arsenic	85.8440	1.0	0.70	125.000	1.71413	67.3	59 - 103	6.86	20	
Lead	89.2776	1.0	0.11	125.000	3.80413	68.4	34 - 129	5.88	20	



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7C1019 - EPA 3010A_W

Blank (B7C1019-BLK1)

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	ND	0.010	0.0067	
Lead	ND	0.0050	0.0028	

LCS (B7C1019-BS1)

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	0.973979	0.010	0.0067	1.00000	97.4	80 - 120
Lead	0.979356	0.0050	0.0028	1.00000	97.9	80 - 120

Duplicate (B7C1019-DUP1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	ND	0.010	0.0067	ND		NR	20
Lead	ND	0.0050	0.0028	ND		NR	20

Matrix Spike (B7C1019-MS1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	2.34740	0.010	0.0067	2.50000	ND	93.9	74 - 123
Lead	2.43337	0.0050	0.0028	2.50000	ND	97.3	78 - 109

Matrix Spike Dup (B7C1019-MSD1)

Source: 1701285-50

Prepared: 3/30/2017 Analyzed: 3/30/2017

Arsenic	2.33846	0.010	0.0067	2.50000	ND	93.5	74 - 123	0.381	20
Lead	2.42520	0.0050	0.0028	2.50000	ND	97.0	78 - 109	0.336	20



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Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/03/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
Batch B7C1079 - STLC_S Extraction									
Blank (B7C1079-BLK1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	ND	1.0	0.057						
Blank (B7C1079-BLK2)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	ND	1.0	0.057						
LCS (B7C1079-BS1)					Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	1.86808			2.00000	93.4	80 - 120			
Duplicate (B7C1079-DUP1)					Source: 1701285-08 Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	2.45894	1.0	0.057		2.49773		1.57	20	
Duplicate (B7C1079-DUP2)					Source: 1701289-10 Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	0.508343	1.0	0.057		11.1368		183	20	R, J
Matrix Spike (B7C1079-MS1)					Source: 1701285-08 Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	4.47787			2.50000	2.49773	79.2	44 - 130		
Matrix Spike (B7C1079-MS2)					Source: 1701289-10 Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	11.8151			2.50000	11.1368	27.1	44 - 130		M1
Matrix Spike Dup (B7C1079-MSD1)					Source: 1701285-08 Prepared: 4/2/2017 Analyzed: 4/3/2017				
Lead	4.54333			2.50000	2.49773	81.8	44 - 130	1.45	20



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Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/03/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

**ADVANCED TECHNOLOGY
LABORATORIES**
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: TLC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		Tel:	
City: IRVINE		State: CA		Zip: 92618	
Fax:					
SEND REPORT TO:		SEND INVOICE TO:		Same as SEND REPORT TO	
Attn:		Email:			
Company:		Company:			
Address:		Address:			
City:		City:		State:	
Zip:		Zip:		Zip:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:		PO #:			
Sample:		Sampler:			
ROOSEVELT HS		E178241			
265642/TA02		100816			
Giuseppe Cefalu					
ITEM	Lab No.	Sample Description		Date	Time
1	1701269-11	CR1-201-2.5		3/26/17	0959
2	1-12	AA2543-5-3.5		3/26/17	1020
3	1-17	AA2543-6-3.5		3/26/17	1005
4	1-14	EB-26-3/26/17		3/26/17	1040
5					
6					
7					
8					
9					
10					

samples will be disposed of after 14 calendar days after receipt of samples.


Electronic records maintained for five (5) years from report date.

3. Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees:

- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reprocessed EDD.
- Rush TCE/PTC samples: add 2 days to analysis TAT for extraction on procedure.
- Rush TCE/PTC samples: add 2 days to analysis TAT for extraction on procedure.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name Alfon Ramirez Signature 

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>[Signature]</i> Allan Ramirez	3-26-17	1:00	<i>[Signature]</i> Allan Ramirez	3-26-17	1:00
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>[Signature]</i> Allan Ramirez	3-26-17	1:45	<i>[Signature]</i> Allan Ramirez	3-26-17	1:45
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>[Signature]</i> Allan Ramirez	3-26-17	1:45	<i>[Signature]</i> Allan Ramirez	3-26-17	1:45

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, March 27, 2017 12:57 PM
To: Rachelle Arada
Cc: Carmen Aguila; Maxwell, Jeff
Subject: LAUSD Roosevelt High School - Clarifications for Soil Samples Collected March 26, 2017
Attachments: LAUSD Roosevelt - AR_3-26-17.pdf; LAUSD Roosevelt - GC_3-26-17.pdf

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on March 26, 2017, at LAUSD Roosevelt High School (see attachments):

- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and/or Lead (EPA Method 6010B) as specified below.
 - o CR1-4b1-0.5 for lead
 - o AA2543-5-3.5 for arsenic
 - o Q-15d1-2.5 for lead
 - o IM-5d-4.5 for arsenic
 - o CRA-2c-4.5 for lead
- **Sample turnaround time (TAT)** - The TAT was not indicated on the COC for the following samples. Please analyze these samples on a 48 hour TAT:
 - o IA-8-2.5
 - o IA-8-3.5
 - o IA-8-4.5
 - o IA-7-0.5
 - o IA-7-2.5
 - o IA-7-3.5
 - o IA-7-4.5
 - o Q-15d1-0.5
 - o Q-15d1-2.5

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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ADVANCED TECHNOLOGY
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CHAIN OF CUSTODY RECORD

Page 1 of 2

Instruction: Complete all shaded areas.

For Laboratory Use Only
Sample Conditions Upon Receipt

Method of Transport	Condition	Y	N
<input type="checkbox"/> Client	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 650	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>

ATLCOCC Ver: 20130715

Company: **TECH SOLUTIONS, INC.**
Address: **100 S. Main St., Suite 100, Los Angeles, CA 90012**
City: **Los Angeles** State: **CA** Zip: **90012**
Tel: **(213) 612-1111** Fax: **(213) 612-1111**
Email: **info@techsolutionsinc.com**
Company: **TECH SOLUTIONS, INC.**
Address: **100 S. Main St., Suite 100, Los Angeles, CA 90012**
City: **Los Angeles** State: **CA** Zip: **90012**
Tel: **(213) 612-1111** Fax: **(213) 612-1111**
Email: **info@techsolutionsinc.com**

Project Name:	Quote No.:	Special Instructions/Comments:	Sample Description	Sample ID / Location	Date	Time
100 S. Main St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830
2650 E. 1st St. U.S.	612-1111		CR12-161-055	CR12-161-055	3/24/11	0830

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter: **TECH SOLUTIONS, INC.** Signature: **[Signature]**

Received by: **TECH SOLUTIONS, INC.** Signature: **[Signature]** Date: **3-26-11** Time: **1145**

Received by: **TECH SOLUTIONS, INC.** Signature: **[Signature]** Date: **3-26-11** Time: **1145**

Received by: **TECH SOLUTIONS, INC.** Signature: **[Signature]** Date: **3-26-11** Time: **1145**



CHAIN OF CUSTODY RECORD

Page 2 of 2

3275 Walnut Ave., Signal Hill, CA 90755
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Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCC Ver: 20130715
Sample Conditions Upon Receipt
Condition Y N
1. CHILLED ☐ ATL ☐ 5. # OF SAMPLES MATCH COC ☐
2. HEADSPACE (N/A) ☐ FedEx ☐ 6. PRESERVED ☐
3. CONTAINER INTACT ☐ GSO ☐ 7. COOLER TEMP, deg C
4. SEALED ☐ Other: ☐

Company: THE SOLUTIONS, INC.
Address: 11111 W. 111th St.
City: LA BREA
State: CA
Zip: 90034
Tel: (562) 989-4045
Fax: (562) 989-4040
Email: info@thesolutionsinc.com

SEND REPORT TO: ☐ same as SEND REPORT TO
Project Name: 11111 W. 111th St.
Quote No.: 11111
Project No.: 11111
PO #: 11111
Sampler: 11111
Lab No.: 11111
Sample ID / Location: 11111
Date: 11/11/11
Time: 11:11

ITEM	Lab No.	Sample ID / Location	Sample Description	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	11111	11111	11111	11111	11111	11111	11111
2	11111	11111	11111	11111	11111	11111	11111
3	11111	11111	11111	11111	11111	11111	11111
4	11111	11111	11111	11111	11111	11111	11111
5	11111	11111	11111	11111	11111	11111	11111
6	11111	11111	11111	11111	11111	11111	11111
7	11111	11111	11111	11111	11111	11111	11111
8	11111	11111	11111	11111	11111	11111	11111
9	11111	11111	11111	11111	11111	11111	11111
10	11111	11111	11111	11111	11111	11111	11111

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.
Signature: 11111
Date: 11/11/11
Time: 11:11
Relinquished by: (Signature and Printed Name)
Relinquished by: (Signature and Printed Name)
Relinquished by: (Signature and Printed Name)

Relinquished by: (Signature and Printed Name)
Relinquished by: (Signature and Printed Name)
Relinquished by: (Signature and Printed Name)

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Wednesday, March 29, 2017 4:52 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701289)

Rachelle – Please conduct a STLC extraction for lead on a 3-day TAT for sample CR1-2d1-0.5.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Rachelle Arada [mailto:Rachelle@atlglobal.com]
Sent: Wednesday, March 29, 2017 4:15 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com
Subject: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701289)

Hi John,

Please find your rush TAT results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager



Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

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April 07, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701289

Client Reference : ROOSEVELT HS, 265642/TA02

Enclosed are the results for sample(s) received on March 26, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a white background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

TRC

9685 Research Drive

Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/07/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CRI-2d1-0.5	1701289-10	Soil	3/26/17 9:55	3/26/17 11:45

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02
Report To : John Nordenstam
Reported : 04/07/2017

Client Sample ID CRI-2d1-0.5

Lab ID: 1701289-10

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.10	0.25	0.014	5	B7D0101	04/05/2017	04/05/17 18:14	D1, J



Certificate of Analysis

TRC
9685 Research Drive
Irvine , CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/07/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0101 - EPA 3010A_S										
Blank (B7D0101-BLK1)					Prepared: 4/5/2017 Analyzed: 4/6/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0101-BLK2)					Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	3.0343E-3	0.050	0.0028							J
LCS (B7D0101-BS1)					Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.887995	0.050	0.0028	1.00000		88.8	80 - 120			
Duplicate (B7D0101-DUP1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.041521	0.25	0.014		0.043901			5.57	20	J
Duplicate (B7D0101-DUP2)					Source: 1701286-10 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	0.157194	0.25	0.014		0.168966			7.22	20	J
Matrix Spike (B7D0101-MS1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.34773	0.25	0.014	2.50000	0.043901	92.2	78 - 109			
Matrix Spike (B7D0101-MS2)					Source: 1701286-10 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.35472	0.25	0.014	2.50000	0.168966	87.4	78 - 109			
Matrix Spike Dup (B7D0101-MSD1)					Source: 1701285-11 Prepared: 4/5/2017 Analyzed: 4/5/2017					
Lead	2.35137	0.25	0.014	2.50000	0.043901	92.3	78 - 109	0.155	20	



Certificate of Analysis

TRC

9685 Research Drive

Irvine, CA 92618

Project Number : ROOSEVELT HS, 265642/TA02

Report To : John Nordenstam

Reported : 04/07/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Monday, April 03, 2017 5:51 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com; Maxwell, Jeff
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701289)

Rachelle – Please conduct a TCLP extraction for lead on a 3-day TAT for Sample CR1-2d1-0.5.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.trcsolutions.com

From: Nordenstam, John
Sent: Wednesday, March 29, 2017 4:52 PM
To: 'Rachelle Arada' <Rachelle@atlglobal.com>
Cc: customer.relations@atlglobal.com
Subject: RE: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701289)

Rachelle – Please conduct a STLC extraction for lead on a 3-day TAT for sample CR1-2d1-0.5.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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From: Rachelle Arada [<mailto:Rachelle@atlglobal.com>]
Sent: Wednesday, March 29, 2017 4:15 PM
To: Nordenstam, John <jnordenstam@trcsolutions.com>
Cc: customer.relations@atlglobal.com
Subject: Rush TAT Results - ROOSEVELT HS, 265642/TA02 (ATL# 1701289)

Hi John,

Please find your rush TAT results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager



June 22, 2017

John Nordenstam
TRC
9685 Research Drive
Irvine, CA 92618
Tel: (949) 753-0101
Fax: (949) 753-0111

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1702311
Client Reference : LAUSD ROOSEVELT HS , 265642.0001

Enclosed are the results for sample(s) received on June 14, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H-1c-0.5	1702311-01	Soil	6/14/17 9:20	6/14/17 12:30
H-1c-2.5	1702311-02	Soil	6/14/17 9:23	6/14/17 12:30
H-1c-3.5	1702311-03	Soil	6/14/17 9:30	6/14/17 12:30
H-1c1-0.5	1702311-04	Soil	6/14/17 9:07	6/14/17 12:30
H-1c1-2.5	1702311-05	Soil	6/14/17 9:10	6/14/17 12:30
H-1c1-3.5	1702311-06	Soil	6/14/17 9:13	6/14/17 12:30
B-6-3.5	1702311-07	Soil	6/14/17 11:02	6/14/17 12:30
B-6-4.5	1702311-08	Soil	6/14/17 11:10	6/14/17 12:30
B-6c-4.5	1702311-09	Soil	6/14/17 11:34	6/14/17 12:30
C-6-3.5	1702311-10	Soil	6/14/17 10:09	6/14/17 12:30
X-12a-0.5	1702311-11	Soil	6/14/17 8:04	6/14/17 12:30
X-12a-2.5	1702311-12	Soil	6/14/17 8:08	6/14/17 12:30
X-12b-0.5	1702311-13	Soil	6/14/17 7:55	6/14/17 12:30
X-12b-2.5	1702311-14	Soil	6/14/17 7:59	6/14/17 12:30
X-12c-0.5	1702311-15	Soil	6/14/17 7:58	6/14/17 12:30
X-12c-2.5	1702311-16	Soil	6/14/17 8:02	6/14/17 12:30
W-18-0.5	1702311-17	Soil	6/14/17 8:26	6/14/17 12:30
W-18-2.5	1702311-18	Soil	6/14/17 8:31	6/14/17 12:30
W-18a-0.5	1702311-19	Soil	6/14/17 8:25	6/14/17 12:30
W-18a-2.5	1702311-20	Soil	6/14/17 8:30	6/14/17 12:30
W-14c-0.5	1702311-21	Soil	6/14/17 8:10	6/14/17 12:30
W-14c-2.5	1702311-22	Soil	6/14/17 8:14	6/14/17 12:30
X-14b-0.5	1702311-23	Soil	6/14/17 8:22	6/14/17 12:30
X-14b-2.5	1702311-24	Soil	6/14/17 8:27	6/14/17 12:30
X-14c-0.5	1702311-25	Soil	6/14/17 8:13	6/14/17 12:30
X-14c-2.5	1702311-26	Soil	6/14/17 8:17	6/14/17 12:30
X-14d-0.5	1702311-27	Soil	6/14/17 8:09	6/14/17 12:30
X-14d-2.5	1702311-28	Soil	6/14/17 8:12	6/14/17 12:30
EB-28-6-14-17	1702311-29	Water	6/14/17 11:50	6/14/17 12:30
EB-29-6-14-17	1702311-30	Water	6/14/17 11:52	6/14/17 12:30
B-6-3.5 DUP	1702311-31	Soil	6/14/17 11:02	6/14/17 12:30
W-14c-0.5 DUP	1702311-32	Soil	6/14/17 8:10	6/14/17 12:30
X-14b-0.5 DUP	1702311-33	Soil	6/14/17 8:22	6/14/17 12:30



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Sample Receiving/General Comments:

Per client instructions, the following duplicate samples will be an aliquot taken from the original samples submitted.

B-6-3.5 Dup
W-14c-0.5 Dup
X-14b-0.5 Dup



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID H-1c-0.5

Lab ID: 1702311-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:17	



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Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID H-1c-2.5

Lab ID: 1702311-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:19	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID H-1c-3.5

Lab ID: 1702311-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.6	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:24	



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Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID H-1c1-0.5

Lab ID: 1702311-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	15	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:22	



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Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID H-1c1-2.5

Lab ID: 1702311-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.6	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 13:55	



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Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID H-1c1-3.5

Lab ID: 1702311-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.7	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 13:56	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID B-6-3.5

Lab ID: 1702311-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	36	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:00	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID B-6-4.5

Lab ID: 1702311-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.7	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:01	



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Reported : 06/22/2017

Client Sample ID B-6c-4.5

Lab ID: 1702311-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	25	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:02	



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Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID C-6-3.5

Lab ID: 1702311-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	16	1.0	0.19	1	B7F0327	06/15/2017	06/15/17 14:03	



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Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID X-12a-0.5

Lab ID: 1702311-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:23	



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Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID X-12a-2.5

Lab ID: 1702311-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:06	



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Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID X-12b-0.5

Lab ID: 1702311-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.5	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:07	



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Reported : 06/22/2017

Client Sample ID X-12b-2.5

Lab ID: 1702311-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:08	



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Reported : 06/22/2017

Client Sample ID X-12c-0.5

Lab ID: 1702311-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	12	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:09	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID X-12c-2.5

Lab ID: 1702311-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:10	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID W-18-0.5

Lab ID: 1702311-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:14	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID W-18-2.5

Lab ID: 1702311-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:15	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID W-18a-0.5

Lab ID: 1702311-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	0.70	1	B7F0327	06/15/2017	06/15/17 14:16	



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Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID W-18a-2.5

Lab ID: 1702311-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:30	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID W-14c-0.5

Lab ID: 1702311-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:34	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID W-14c-2.5

Lab ID: 1702311-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:36	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID X-14b-0.5

Lab ID: 1702311-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:37	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID X-14b-2.5

Lab ID: 1702311-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:38	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID X-14c-0.5

Lab ID: 1702311-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.2	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:39	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID X-14c-2.5

Lab ID: 1702311-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:40	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID X-14d-0.5

Lab ID: 1702311-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:44	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID X-14d-2.5

Lab ID: 1702311-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	0.70	1	B7F0328	06/15/2017	06/15/17 14:45	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID EB-28-6-14-17

Lab ID: 1702311-29

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7F0418	06/20/2017	06/21/17 13:04	
Lead	0.0032	0.0050	0.0028	1	B7F0418	06/20/2017	06/21/17 13:04	J



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID EB-29-6-14-17

Lab ID: 1702311-30

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7F0418	06/20/2017	06/21/17 13:09	
Lead	0.0034	0.0050	0.0028	1	B7F0418	06/20/2017	06/21/17 13:09	J



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Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID B-6-3.5 DUP

Lab ID: 1702311-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	20	1.0	0.19	1	B7F0405	06/19/2017	06/19/17 13:22	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Client Sample ID W-14c-0.5 DUP

Lab ID: 1702311-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	0.70	1	B7F0405	06/19/2017	06/19/17 13:30	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Client Sample ID X-14b-0.5 DUP
Lab ID: 1702311-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	9.8	1.0	0.70	1	B7F0405	06/19/2017	06/19/17 13:31	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7F0327 - EPA 3050B_S

Blank (B7F0327-BLK1)

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.19							

LCS (B7F0327-BS1)

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	45.3007	1.0	0.70	50.0000		90.6	80 - 120			
Lead	46.6803	1.0	0.19	50.0000		93.4	80 - 120			

Duplicate (B7F0327-DUP1)

Source: 1702311-01

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	3.88710	1.0	0.70		3.87072			0.422	20	
Lead	9.10358	1.0	0.19		12.8100			33.8	20	R

Matrix Spike (B7F0327-MS1)

Source: 1702311-01

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	90.2059	1.0	0.70	125.000	3.87072	69.1	59 - 103			
Lead	96.0326	1.0	0.19	125.000	12.8100	66.6	34 - 129			

Matrix Spike Dup (B7F0327-MSD1)

Source: 1702311-01

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	90.4032	1.0	0.70	125.000	3.87072	69.2	59 - 103	0.219	20	
Lead	95.3735	1.0	0.19	125.000	12.8100	66.1	34 - 129	0.689	20	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7F0328 - EPA 3050B_S

Blank (B7F0328-BLK1)

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	ND	1.0	0.70
Lead	ND	1.0	0.19

LCS (B7F0328-BS1)

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	44.5099	1.0	0.70	50.0000	89.0	80 - 120
Lead	46.4840	1.0	0.19	50.0000	93.0	80 - 120

Duplicate (B7F0328-DUP1)

Source: 1702311-20

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	2.53565	1.0	0.70	2.54835	0.500	20
Lead	7.05546	1.0	0.19	6.09962	14.5	20

Matrix Spike (B7F0328-MS1)

Source: 1702311-20

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	95.4746	1.0	0.70	125.000	2.54835	74.3	59 - 103
Lead	99.4974	1.0	0.19	125.000	6.09962	74.7	34 - 129

Matrix Spike Dup (B7F0328-MSD1)

Source: 1702311-20

Prepared: 6/15/2017 Analyzed: 6/15/2017

Arsenic	93.8630	1.0	0.70	125.000	2.54835	73.1	59 - 103	1.70	20
Lead	98.4599	1.0	0.19	125.000	6.09962	73.9	34 - 129	1.05	20



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Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7F0405 - EPA 3050B_S

Blank (B7F0405-BLK1)

Prepared: 6/19/2017 Analyzed: 6/19/2017

Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.19							

LCS (B7F0405-BS1)

Prepared: 6/19/2017 Analyzed: 6/19/2017

Arsenic	45.2731	1.0	0.70	50.0000		90.5	80 - 120			
Lead	47.2766	1.0	0.19	50.0000		94.6	80 - 120			

Duplicate (B7F0405-DUP1)

Source: 1702311-31

Prepared: 6/19/2017 Analyzed: 6/19/2017

Arsenic	0.705884	1.0	0.70		0.747281			5.70	20	J
Lead	20.1063	1.0	0.19		20.3455			1.18	20	

Matrix Spike (B7F0405-MS1)

Source: 1702311-31

Prepared: 6/19/2017 Analyzed: 6/19/2017

Arsenic	98.1727	1.0	0.70	125.000	0.747281	77.9	59 - 103			
Lead	124.311	1.0	0.19	125.000	20.3455	83.2	34 - 129			

Matrix Spike Dup (B7F0405-MSD1)

Source: 1702311-31

Prepared: 6/19/2017 Analyzed: 6/19/2017

Arsenic	95.1136	1.0	0.70	125.000	0.747281	75.5	59 - 103	3.17	20	
Lead	119.469	1.0	0.19	125.000	20.3455	79.3	34 - 129	3.97	20	



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Project Number : LAUSD ROOSEVELT HS , 265642.0001
Report To : John Nordenstam
Reported : 06/22/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B7F0418 - EPA 3010A_W

Blank (B7F0418-BLK1)

Prepared: 6/20/2017 Analyzed: 6/21/2017

Arsenic	ND	0.010	0.0067							
Lead	ND	0.0050	0.0028							

LCS (B7F0418-BS1)

Prepared: 6/20/2017 Analyzed: 6/21/2017

Arsenic	0.961857	0.010	0.0067	1.00000		96.2	80 - 120			
Lead	0.983497	0.0050	0.0028	1.00000		98.3	80 - 120			

Duplicate (B7F0418-DUP1)

Source: 1702311-29

Prepared: 6/20/2017 Analyzed: 6/21/2017

Arsenic	ND	0.010	0.0067		ND			NR	20	
Lead	ND	0.0050	0.0028		0.003172			NR	20	

Matrix Spike (B7F0418-MS1)

Source: 1702311-29

Prepared: 6/20/2017 Analyzed: 6/21/2017

Arsenic	2.29353	0.010	0.0067	2.50000	ND	91.7	74 - 123			
Lead	2.31575	0.0050	0.0028	2.50000	0.003172	92.5	78 - 109			

Matrix Spike Dup (B7F0418-MSD1)

Source: 1702311-29

Prepared: 6/20/2017 Analyzed: 6/21/2017

Arsenic	2.33892	0.010	0.0067	2.50000	ND	93.6	74 - 123	1.96	20	
Lead	2.37820	0.0050	0.0028	2.50000	0.003172	95.0	78 - 109	2.66	20	



Certificate of Analysis

TRC

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Irvine , CA 92618

Project Number : LAUSD ROOSEVELT HS , 265642.0001

Report To : John Nordenstam

Reported : 06/22/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

Company: TRC SOLUTIONS, INC		Address: 9685 RESORARCH DRIVE		Tel: 949-727-9336	
City: IRVINE		State: CA		Fax: 949-727-7311	
SEND REPORT TO:		SEND INVOICE TO:		<input type="checkbox"/> same as SEND REPORT TO	
Attn: JOHN NORDENSTAM jnordenstam@trcsolutions.com		Attn:		Email:	
Company: TRC SOLUTIONS, INC		Company:			
Address: 9685 RESORARCH DRIVE		Address:			
City: IRVINE		City:		State: CA	
Zip: 92618		Zip: 92618		Zip:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:		PO #:		<div>48 HR RUSH</div>	
Sampler:		109823			
ITEM	Lab No.	Sample Description		Date	Time
		Sample ID / Location			
1	1702311-11	X-129-0.5		6-14-17	0804
2	-12	X-129-2.5			0808
3	-13	X-126-0.5			0755
4	-14	X-126-2.5			0759
5	-15	X-126-0.5			0758
6	-16	X-126-2.5			0802
7	-17	W-18-0.5			0826
8	-18	W-18-2.5			0831
9	-19	W-189-0.5			0825
10	-20	W-189-2.5			0830

- samples will be disposed of after 14 calendar days after receipt of samples.
- Electronic records maintained for 1 yr (5) years from report date.
- Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees:

- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma; ed report; \$35. per reprocessed EDO.

Analysis:

- o Samples received 2 days to analysis; FAX for extraction on procedure.
- o Laboratory samples will incur a disposal fee of \$75 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Relinquished by: <u>Allen Ramirez</u> <u>Signature and Printed Name</u> Relinquished by: <u>Allen Ramirez</u> <u>Signature and Printed Name</u> Relinquished by: <u>Allen Ramirez</u> <u>Signature and Printed Name</u>	Date: <u>6-14-17</u> Time: <u>1230</u> Date: _____ Time: _____ Date: _____ Time: _____
---	--



ADVANCED
LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
<input checked="" type="checkbox"/> Client	<input type="checkbox"/> ATL	Condition	Y N
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	1. CHILLED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> GSO	<input type="checkbox"/> GSO	2. HEADSPACE (VIA)	<input type="checkbox"/> 5. # OF SAMPLES MATCH CDC
<input type="checkbox"/> Other:	<input type="checkbox"/> 7. COOLER TEMP, deg. C:	3. CONTAINER IMPACT	<input type="checkbox"/> 6. PRESERVED
		4. SEALED	<input type="checkbox"/> 7. COOLER TEMP, deg. C:

Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA		Zip: 92618		Tel: 949-727-9386		Fax: 949-727-7311	
Attn: JOHN NORRISTON		Email: jnorrison@trcsolutions.com		City: IRVINE		State: CA		Zip: 92618		Tel: 949-727-9386		Fax: 949-727-7311	
Company: TRC SOLUTIONS, INC		Address: 9685 RESEARCH DRIVE		City: IRVINE		State: CA		Zip: 92618		Tel: 949-727-9386		Fax: 949-727-7311	
Attn: JOHN NORRISTON		Email: jnorrison@trcsolutions.com		City: IRVINE		State: CA		Zip: 92618		Tel: 949-727-9386		Fax: 949-727-7311	

Project Name: LAUSD ROSSIGNOL		Quote No:		Special Instructions/Comments: 48 HR RUSH	
Project No: 265642.0001		PO #:			
Sampler: A. RAMIREZ		109823			
ITEM		Lab No.		Sample Description	
1		1702311-21		W-14C-0.5	
2		22		W-14C-2.5	
3		23		X-14B-0.5	
4		24		X-14B-2.5	
5		25		X-14C-0.5	
6		26		X-14C-2.5	
7		27		X-14C-0.5	
8		28		X-14C-2.5	
9		29		E8-28-6-14-17	
10		30		E8-29-6-14-17	
Date		Time		Date	
6-14-17		0810		6-14-17	
0814		0822		0827	
0813		0817		0809	
0812		1150		1152	

1. Sample received by: 7:30 AM to 7:00 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM		7. Electronic records maintained for 1 yr (5 years from report date)	
2. Sample received after 3:00 PM, are considered received the following Business day at 8:00 AM.		8. Hard copy reports to be disposed of after 45 calendar days from report date.	
3. The following turnaround time conditions apply:		9. Liquid & solid samples: Complementary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.	
TAT = 0 : 300% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)		- Air samples: Complementary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.	
TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)		- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ad report; \$35 per reprocessed EDD.	
TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)		10. Rush TAT/STIC samples: add 2 days to analysis TAT for extraction on procedure.	
TAT = 3 : 20% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)		11. Unanalyzed samples will incur a disposal fee of \$7 per sample.	
TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)			
TAT = 5 : NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM)			
4. Weekend, holiday, after-hours work - ask for quote.			
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab. ... ask for quote.			
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air			

Relinquished by: (Signature and Printed Name)		Date: 6-14-17		Time: 1230	
Relinquished by: (Signature and Printed Name)		Date: 6-14-17		Time: 1230	
Relinquished by: (Signature and Printed Name)		Date: 6-14-17		Time: 1230	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted

Signature: Allan Ramirez
Submitter Print Name: Allan Ramirez

Date: 6/14/17 Time: 1230
Date: 6/14/17 Time: 1230
Date: 6/14/17 Time: 1230

Rachelle Arada

From: Nordenstam, John [jnordenstam@trcsolutions.com]
Sent: Friday, June 16, 2017 4:44 PM
To: Rachelle Arada
Cc: Edric Caballero; Maxwell, Jeff
Subject: LAUSD Roosevelt High School - Duplicate Samples for Soil Samples Collected June 14, 2017

Rachelle – Please make the following additions/changes to the requested analyses for soil samples collected on June 14, 2017 at LAUSD Roosevelt High School:

- **Duplicate soil sample analysis** - please pull an aliquot from the following soil samples to be used as duplicate samples and perform the analyses for Arsenic and/or Lead (EPA Method 6010B) as specified below. Sample TAT will be 48 hours.
 - B-6-3.5 for lead
 - W-14c-0.5 for arsenic
 - X-14b-0.5 for arsenic

Let me know if you have any questions.

Thanks,

John Nordenstam, PG
Senior Project Geologist



9685 Research Drive, Irvine, CA 92618
T: 949.727.9336 | F: 949.727.3022 | C: 949.283.4754
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APPENDIX G

FIELD DATA SHEETS FOR METHANE INVESTIGATION

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKI Eagle Type 401

Methane Accuracy: ± 50 ppmv or 10% of reading (whichever is higher)

Calibration Date/Time 10/14/16 15:20

Site: TRC/LAUSD Roosevelt High School, Los Angeles

Proj. No. EST 3068

Sampler: M. Marelllo

Date: 10/15/16

Page: 1 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv)	Comments
M1	7	7:39	0.0	0	0.0	18.9	1.62%	B.P 29.58 Inches Hg
	12	7:44	0.0	25.1	0.0	15.1	2.38%	
	22	7:47	0.0	300	0.0	9.8	9,480	
M3	7	7:55	0.0	0	0.0	17.6	2.48%	
	12	8:01	0.0	0	0.0	16.1	2.56%	
	22	8:04	0.0	45	0.0	13.4	900	
M6	7	8:14	0.0	0	0.0	17.9	1.12%	
	12	8:15	0.0	0	0.0	17.8	1.16%	
M4	7	8:26	0.0	0	0.0	16.9	1.75%	
	12	8:27	0.0	75	0.0	15.2	1.27%	
	22	8:29	0.0	130	0.0	13.9	9,560	
M2	7	8:37	0.0	100	0.0	18.7	1.25%	
	12	8:38	0.0	240	0.0	15.9	1.50%	
	22	8:39	0.0	910	0.0	14.1	2.84%	
M7	7	8:49	0.0	0	0.0	17.3	2.75%	
M11	7	9:07	0.0	12	0.0	18.1	1.65%	
	12	9:08	0.0	0	0.0	18.1	1.87%	
M10	7	9:14	0.0	0	0.0	18.7	1.51%	
	12	9:15	0.0	80	0.0	18.6	1.80%	

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKI Eagle Type 401

Methane Accuracy: ± 50 ppmv or 10% of reading (whichever is higher)

Calibration Date/Time 10/15/16 15:20

Site: TRC/LAUSD Roosevelt High School, Los Angeles

Proj. No. EST 3068

Sampler: M. Marella

Date: 10/15/16

Page: 2 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv)	Comments
M12	7	9:40	0.0	0	0.0	18.5	1,50%	
	12	9:43	0.0	23	0.0	18.2	5,730	
	16	9:45	0.0	10	0.0	17.8	1,67%	
M14	7	9:55	0.0	0	0.0	17.7	2.48%	
	12	9:58	0.0	0	0.0	17.1	2.70%	
M17	7	10:16	0.0	3600	0.0	14.1	9,800	Probe ~ 6' from gas line
	12	10:22	0.0	120	0.0	12.1	3,20%	
	19	10:24	0.0	1000	0.0	18.8	8,800	High Vacuum
M18	7	10:35	0.0	0	0.0	20.8	4,350	
	12	10:36	0.0	0	0.0	19.9	7,250	
	22	10:38	0.0	7,210	0.0	19.3	4,800	High Vacuum
M20	7	10:48	0.0	2,300	0.0	6.4	4,90%	
	12	10:50	0.0	24,500	34.5	16.2	3,90%	
	22	11:01	0.0	14,950	19.3	10.3	2,210	High Vacuum
M19	7	11:13	0.01	0	0.0	20.8	3,890	
	12	11:15	0.015	0	0.0	20.4	2,850	
M15	7	11:28	0.0	0	0.0	10.0	>5%	
	12	11:31	0.0	2,200	0.0	2.3	>5%	
	22	11:33	0.0	6,050	4.0	3.6	>5%	

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKI Eagle Type 401

Methane Accuracy: ± 50 ppmv or 10% of reading (whichever is higher)

Calibration Date/Time 10/14/16 15:20

Site: TRC/LAUSD Roosevelt High School, Los Angeles

Proj. No. EST 3068

Sampler: M. Marella

Date: 10/15/16

Page: 3 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv)	Comments
M16	7	11:44	0.0	0	0.0	18.8	2.20%	
	12	11:45	0.0	0	0.0	18.5	2.30%	
M13	7	12:33	0.0	0	0.0	17.0	2.80%	
	12	12:40	0.0	21	0.0	13.2	>5%	
M9	7	12:43	0.0	150	0.0	15.6	2.30%	
	12	12:45	0.04	1,800	0.0	15.0	2.02%	
	22	12:47	0.02	2,400	0.0	13.4	1.82%	
M8	7	12:57	0.0	0	0.0	19.0	4,880	
	12	12:59	0.05	0	0.0	17.1	2.34%	
	16	13:01	0.07	0	0.0	16.6	3.20%	
M5	7	13:09	0.0	0	0.0	8.7	>5%	
	12	13:12	0.11	12	0.0	5.8	>5%	
	22	13:16	0.23	800	0.0	7.2	>5%	

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKI Eagle Type 401

Methane Accuracy: ± 50 ppmv or 10% of reading (whichever is higher)

Calibration Date/Time

10/16/16 6:00 A

Site: TRC/LAUSD Roosevelt High School, Los Angeles

Proj. No. EST 3068

Sampler: M. Marcello

Date: 10/16/16

Page: 1 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv)	Comments
M1	7	7:22	0.0	0	0.0	19.6	2.05%	B.P. 29.75 in. Hg
	12	7:26	0.0	10	0.0	20.2	2.75%	
	22	7:28	0.0	5	0.0	19.8	1.88%	
M3	7	7:34	0.0	0	0.0	17.5	2.80%	
	12	7:36	0.0	20	0.0	19.0	2.30%	
	27	7:39	0.0	65	0.0	19.3	1.20%	
M2	7	7:47	0.0	130	0.0	18.9	1.30%	
	12	7:52	0.0	55	0.0	18.2	1.35%	
	22	7:55	0.0	630	0.0	17.4	3.70%	
M4	7	8:00	0.0	0	0.0	17.7	2.35%	
	12	8:03	0.0	0	0.0	15.9	3.75%	
	22	8:06	0.0	30	0.0	16.1	3.70%	
M7	7	8:11	0.0	30	0.0	18.8	2.90%	
M6	7	8:18	0.0	0	0.0	18.0	1.30%	
	12	8:20	0.0	0	0.0	19.0	1.38%	
M10	7	8:26	0.0	0	0.0	19.1	1.50%	
	12	8:28	0.0	0	0.0	19.8	1.98%	
M11	7	8:34	0.0	0	0.0	20.7	2.10%	
	12		0.0	0	0.0	19.7	2.20%	

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKL Eagle Type 401

Methane Accuracy: ± 50 ppmv or 10% of reading (whichever is higher)

Calibration Date/Time 10/16/16 6:00 A

Site: TRC/LAUSD Roosevelt High School, Los Angeles

Proj. No. EST 3068

Sampler: M. Marcella

Date: 10/16/16

Page: 2 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv)	Comments
M12	7	8:45	0.0	0	0.0	18.5	1.80%	
	12	8:48	0.0	15	0.0	18.8	1.90%	
	16	8:50	0.0	15	0.0	19.0	1.70%	
M14	7	8:58	0.0	50	0.0	17.3	2.80%	
	12	9:06	0.0	15	0.0	17.5	3.10%	
M17	7	9:15	0.0	170	0.0	15.6	1.37%	
	12	9:17	0.0	85	0.0	11.7	4.98%	
	22	9:20	0.0	95	0.0	13.8	8.990	
M18	7	9:56	0.0	0	0.0	20.3	4.900	
	12	9:59	0.0	0	0.0	20.1	7.500	
	22	10:02	0.0	65	0.0	20.0	Error	Water in High Vacuum Probe
M20	7	10:08	0.0	500	0.0	10.7	>5%	
	12	10:13	0.0	7,500	3.0	7.2	4.8%	
	22	10:17	0.03	750	0.0	8.9	Error	Water in High Vacuum Probe
M19	7	10:59	0.0	46	0.0	20.9	2,330	
	12	11:02	0.0	0	0.0	20.9	3,280	
M15	7	11:09	0.0	10	0.0	8.8	4.85%	
	12	11:10	0.0	1,050	0.0	16.3	>5%	
	22	11:13	0.0	380	0.0	19.2	>5%	

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKI Eagle Type 401

Methane Accuracy: ± 50 ppmv or 10% of reading (whichever is higher)Calibration Date/Time 10/16/16 6:00 ASite: TRC/LAUSD Roosevelt High School, Los AngelesProj. No. EST 3068Sampler: M. MarellaDate: 10/16/16Page: 3 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv)	Comments
M16	7	11:21	0.0	0	0.0	18.4	2.10%	
	12	11:24	0.0	20	0.0	19.1	2.05%	
M13	7	11:31	0.0	0	0.0	17.4	3.20%	
	12	11:33	0.0	0	0.0	16.3	>5%	
M9	7	11:39	0.0	30	0.0	17.1	2.50%	
	12	11:42	0.0	800	0.0	20.3	2.80%	
	22	11:44	0.0	120	0.0	20.9	1.30%	
M8	7	11:52	0.0	25	0.0	20.0	8800	
	12	11:53	0.01	0	0.0	17.8	2.80%	
	16	11:55	0.01	0	0.0	17.5	3.10%	
M5	7	12:05	0	55	0.0	18.3	>5%	
	12	12:07	0.015	20	0.0	12.5	>5%	
	22	12:09	0.05	0	0.0	9.9	>5%	



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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 10/17/16

PAGE: 2 OF 2

LABORATORY CLIENT: Environmental Management Strategies / Environmental Support Technologies						CLIENT PROJECT NAME / NUMBER: TRC/LAUSD Roosevelt High Shool, Los Angeles						P.O. NO.: EST 3068															
ADDRESS: 8 Goodyear, Suite 125						PROJECT CONTACT: Anthony Severini						SAMPLER(S): (PRINT) Michael Mareello															
CITY: Irvine		STATE: CA		ZIP: 92618																							
TEL: (949) 679-9500		E-MAIL: aseverini@est-inc.com mmareello@est-inc.com				REQUESTED ANALYSES																					
TURNAROUND TIME (Rush surcharges may apply to any TAT. not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD						Please check box or fill in blank as needed.																					
<input type="checkbox"/> COELT EDF		GLOBAL ID:		LOG CODE:																							
SPECIAL INSTRUCTIONS: 24 hold time for hydrogen sulfide 72 hour hold time for all others Report methane, O2, CO2 and H2S in ppmv Report VOCs in ug/M3																											
LAB USE ONLY	SAMPLE ID	DATE	TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Methane EPA TO-3	Hydrogen Sulfide EPA 3	CO2, O2 ASTM 1946	VOCs EPA TO-15	
	M20-7ft	10/16/16	14:22	Soil Gas	2																			X	X	X	X
		10/16/16		Soil Gas	2																						
		10/16/16		Soil Gas	2																						
		10/16/16		Soil Gas	2																						
		10/16/16		Soil Gas	2																						
		10/16/16		Soil Gas	2																						
		10/16/16		Soil Gas	2																						
Relinquished by: (Signature) 						Received by: (Signature/Affiliation) Michael Mareello						Date: 10/17/16		Time: 0741													
Relinquished by: (Signature)						Received by: (Signature/Affiliation)						Date:		Time:													
Relinquished by: (Signature)						Received by: (Signature/Affiliation)						Date:		Time:													

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKL Eagle Type 401 (Methane, H₂S, O₂) / MultiRaeR (CO₂)

Methane Accuracy: ±25 ppmv or 5% of reading (whichever is higher)

Calibration Date/Time: 3/15/17 valid to 6/15/17

Site: TRC / LAUSD Roosevelt Highschool, Los Angeles

Proj. No.: EST3068

Sampler: M. Marella

Date: 3/19/17

Page:

1 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv or %)	Comments
M3	7	8:08	0.0	0.0	0.0	12.7	NA	
	12	8:17	0.0	0.0	0.0	20.1	NA	
	22	8:21	0.0	35	0.0	11.7	NA	
M11	7	8:58	0.0	0.0	0.0	17.9	NA	
	12	9:06	0.0	0.0	0.0	17.9	NA	
M10	7	9:21	NA	43	0.0	17.0	NA	
	12	9:13	0.01	0.0	0.0	17.1	NA	
M12	7	9:35	0.0	0.0	0.0	18.0	NA	
	12	9:41	0.0	13	0.0	17.9	NA	
	16	9:44	0.0	12	0.0	18.3	NA	
M14	7	10:13	NA	0.0	0.0	17.9	NA	
	12	10:18	NA	0.0	0.0	16.0	NA	
M17	7	10:31	0.0	210	0.0	13.0	NA	Natural Gas Line ~ 5' from probe
	12	10:37	0.0	150	0.0	12.7	NA	
	22	10:42	0.0	NA	NA	NA	NA	High Vac. Water in probe
M20	7	11:18	0.0	NA	NA	NA	NA	High Vac. Water in probe
	12	11:25	0.0	NA	NA	NA	NA	" " " " "
	22	11:30	0.2	NA	NA	NA	NA	Very high vac. water in probe

x

x

Environmental Support Technologies Methane Testing Field Report

City of Los Angeles DBS Testing License No.: 10218

Instrument: RKL Eagle Type 401 (Methane, H₂S, O₂) / MultiRaeR (CO₂)

Methane Accuracy: ±25 ppmv or 5% of reading (whichever is higher)

Calibration Date/Time: _____

Site: TRC / LAUSD Roosevelt Highschool, Los Angeles

Proj. No.: EST3068

Sampler: M. Marcello

Date: 3/19/17

Page:

2 of 3

Probe Number	Depth (ft. bgs) (ft. bgs)	Time (24 hr) (24 hr)	Pressure (IWC)	Methane (ppmv)	H ₂ S (ppmv)	O ₂ (%)	CO ₂ (ppmv or %)	Comments
M19	7	11:50	0.0	5.0	0.0	20.1	NA	
	12	11:56	0.0	70.	0.0	20.4	NA	
M16	7	12:10	0.0	0.0	0.0	19.0	NA	
	12	12:15	0.0	15	0.0	19.3	NA	
M13	7	12:25	0.0	20	0.0	13.3	NA	
	12	12:30	0.0	33	0.0	14.4	NA	
M15	3	12:35						No Valve, Exposed, water in probe
	?	12:37						No Valve, Exposed, water in probe
	?	12:40						No Valve, Exposed, water in probe
M9	7	12:50	0.0	43	0.0	19.5	NA	
	12	13:04	0.0	23	0.0	14.6	NA	
	22	13:12	0.0	NA	NA	NA	NA	Very high vac. water in probe
M8	7	13:20	0.0	10	0.0	18.8	NA	Very high vac. water in probe
	12	13:27	0.0	23	0.0	16.5	NA	
	16	13:32	0.03	28	0.0	16.8	NA	
M6	7	13:40	0.02	0.0	0.0	17.8	NA	
	12	13:47	0.03	0.0	0.0	18.3	NA	

City of Los Angeles DBS Testing License No.: 10218

Methane Accuracy: ± 25 ppmv or 5% of reading (whichever is higher)

Calibration Date/Time:

Site: TRC / LAUSD Roosevelt Highschool, Los Angeles

Proj. No.: EST3068

Sampler: M. Marcella

Date: 3/19/17

Page:

3 of 3

[illegible]



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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 3/20/2017

PAGE: 1 OF 1

LABORATORY CLIENT: Environmental Management Strategies / Environmental Support Technologies						CLIENT PROJECT NAME / NUMBER: TRC/LAUSD Roosevelt High School, Los Angeles						P.O. NO.: EST 3068											
ADDRESS: 8 Goodyear, Suite 125						PROJECT CONTACT: Anthony Severini						SAMPLER(S): (PRINT) Michael Mareello											
CITY: Irvine		STATE: CA		ZIP: 92618																			
TEL: (949) 679-9500		E-MAIL: aseverini@est-inc.com mmareello@est-inc.com				REQUESTED ANALYSES																	
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD						Please check box or fill in blank as needed.																	
<input type="checkbox"/> COELT EDF						GLOBAL ID:						LOG CODE:											
SPECIAL INSTRUCTIONS: Report methane in ppmv Use bag marked "Prim" (Primary) for all analyses and QA/QC. Use bag marked "Dup" (Duplicate) is insufficient volume in Primary. Duplicate for M17-7 not submitted. Defective bag (leak).						Unpreserved Preserved Field Filtered						Methane EPA TO-3 Hydrogen Sulfide EPA 3 CO2, O2 ASTM 1946 HOLD (Duplicate)											
LAB USE ONLY						SAMPLE ID						SAMPLING		MATRIX		NO. OF CONT.							
						DATE		TIME															
M17-7' Prim						3/19/17		10:31		Soil Gas		1											
M17-12' Prim						3/19/17		10:37		Soil Gas		1											
M19-12' Prim						3/19/17		11:56 ²⁰		Soil Gas		1											
M9-7' Prim						3/19/17		12:50		Soil Gas		1											
M5-12 Prim						3/19/17		14:10		Soil Gas		1											
M17-12' Dup						3/19/17		14:57		Soil Gas		1											
M19-12' Dup						3/19/17		15:10		Soil Gas		1											
M9-7' Dup						3/19/17		14:33		Soil Gas		1											
M5-12 Dup						3/19/17		14:22		Soil Gas		1											
Relinquished by: (Signature)						Received by: (Signature/Affiliation)						Date: 3/20/17						Time: 0950					
Relinquished by: (Signature)						Received by: (Signature/Affiliation)						Date:						Time:					
Relinquished by: (Signature)						Received by: (Signature/Affiliation)						Date:						Time:					

APPENDIX H

OFFICIAL LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS – SOIL GA SAMPLES



WORK ORDER NUMBER: 16-10-1242

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Environmental Management Strategies, Inc.

Client Project Name: TRC/LAUSD Roosevelt High School, Los Angeles

Attention: Anthony Severini
8 Goodyear, Suite 125
Irvine, CA 92618-3745

A handwritten signature in black ink, appearing to read "Don Burley".

Approved for release on 10/24/2016 by:
Don Burley
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: TRC/LAUSD Roosevelt High School, Los Angeles
 Work Order Number: 16-10-1242

1	Work Order Narrative.	3
2	Sample Summary.	4
3	Client Sample Data.	5
	3.1 ASTM D-1946 Fixed Gases (Air).	5
	3.2 EPA 16 Hydrogen Sulfide (Air).	7
	3.3 EPA TO-15 (M) Full List (Air).	9
	3.4 EPA TO-3 (M) C1-C6 (Air).	35
4	Quality Control Sample Data.	37
	4.1 Sample Duplicate.	37
	4.2 LCS/LCSD.	38
5	Sample Analysis Summary.	45
6	Glossary of Terms and Qualifiers.	46
7	Chain-of-Custody/Sample Receipt Form.	47

Work Order Narrative

Work Order: 16-10-1242

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/17/16. They were assigned to Work Order 16-10-1242.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



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Sample Summary

Client: Environmental Management Strategies, Inc.	Work Order: 16-10-1242
8 Goodyear, Suite 125	Project Name: TRC/LAUSD Roosevelt High School, Los Angeles
Irvine, CA 92618-3745	PO Number: EST 3068
	Date/Time Received: 10/17/16 07:41
	Number of Containers: 22

Attn: Anthony Severini

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
M1-22ft.	16-10-1242-1	10/16/16 15:30	2	Air
M5-7ft.	16-10-1242-2	10/16/16 15:03	2	Air
M5-12ft.	16-10-1242-3	10/16/16 15:09	2	Air
M5-22ft.	16-10-1242-4	10/16/16 15:13	2	Air
M9-12ft.	16-10-1242-5	10/16/16 15:49	2	Air
M9-22ft.	16-10-1242-6	10/16/16 15:58	2	Air
M15-12ft.	16-10-1242-7	10/16/16 14:46	2	Air
M15-22ft.	16-10-1242-8	10/16/16 14:52	2	Air
M20-12ft.	16-10-1242-9	10/16/16 14:27	2	Air
M20-12ft. DUP	16-10-1242-10	10/16/16 14:35	2	Air
M20-7ft.	16-10-1242-11	10/16/16 14:22	2	Air

Return to Contents



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: ASTM D-1946
Units: ppm (v/v)

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M1-22ft.	16-10-1242-1-A	10/16/16 15:30	Air	GC 65	N/A	10/17/16 12:27	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	44000		5000	1.00			
Oxygen (+ Argon)	126000		5000	1.00			
M5-7ft.	16-10-1242-2-A	10/16/16 15:03	Air	GC 65	N/A	10/17/16 12:46	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	133000		5000	1.00			
Oxygen (+ Argon)	110000		5000	1.00			
M5-12ft.	16-10-1242-3-A	10/16/16 15:09	Air	GC 65	N/A	10/17/16 13:04	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	147000		5000	1.00			
Oxygen (+ Argon)	88100		5000	1.00			
M5-22ft.	16-10-1242-4-A	10/16/16 15:13	Air	GC 65	N/A	10/17/16 13:22	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	128000		5000	1.00			
Oxygen (+ Argon)	98300		5000	1.00			
M9-12ft.	16-10-1242-5-A	10/16/16 15:49	Air	GC 65	N/A	10/17/16 13:45	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	37600		5000	1.00			
Oxygen (+ Argon)	170000		5000	1.00			
M9-22ft.	16-10-1242-6-A	10/16/16 15:58	Air	GC 65	N/A	10/17/16 14:04	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	39800		5000	1.00			
Oxygen (+ Argon)	179000		5000	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: ASTM D-1946
Units: ppm (v/v)

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M15-12ft.	16-10-1242-7-A	10/16/16 14:46	Air	GC 65	N/A	10/17/16 14:22	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	248000		5000	1.00			
Oxygen (+ Argon)	33700		5000	1.00			
M15-22ft.	16-10-1242-8-A	10/16/16 14:52	Air	GC 65	N/A	10/17/16 14:41	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	329000		5000	1.00			
Oxygen (+ Argon)	23400		5000	1.00			
M20-12ft.	16-10-1242-9-A	10/16/16 14:27	Air	GC 65	N/A	10/17/16 15:00	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	151000		5000	1.00			
Oxygen (+ Argon)	84100		5000	1.00			
M20-12ft. DUP	16-10-1242-10-A	10/16/16 14:35	Air	GC 65	N/A	10/17/16 15:22	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	146000		5000	1.00			
Oxygen (+ Argon)	85700		5000	1.00			
M20-7ft.	16-10-1242-11-A	10/16/16 14:22	Air	GC 65	N/A	10/17/16 16:28	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	156000		5000	1.00			
Oxygen (+ Argon)	83100		5000	1.00			
Method Blank	099-16-444-497	N/A	Air	GC 65	N/A	10/17/16 12:08	161017L01
<u>Parameter</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Carbon Dioxide	ND		5000	1.00			
Oxygen (+ Argon)	ND		5000	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA 16
Units: ppm (v/v)

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M1-22ft.	16-10-1242-1-A	10/16/16 15:30	Air	GC 54	N/A	10/17/16 10:46	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M5-7ft.	16-10-1242-2-A	10/16/16 15:03	Air	GC 54	N/A	10/17/16 10:49	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M5-12ft.	16-10-1242-3-A	10/16/16 15:09	Air	GC 54	N/A	10/17/16 10:52	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M5-22ft.	16-10-1242-4-A	10/16/16 15:13	Air	GC 54	N/A	10/17/16 10:55	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M9-12ft.	16-10-1242-5-A	10/16/16 15:49	Air	GC 54	N/A	10/17/16 11:00	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M9-22ft.	16-10-1242-6-A	10/16/16 15:58	Air	GC 54	N/A	10/17/16 11:06	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M15-12ft.	16-10-1242-7-A	10/16/16 14:46	Air	GC 54	N/A	10/17/16 11:09	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M15-22ft.	16-10-1242-8-A	10/16/16 14:52	Air	GC 54	N/A	10/17/16 11:15	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA 16
Units: ppm (v/v)

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M20-12ft.	16-10-1242-9-A	10/16/16 14:27	Air	GC 54	N/A	10/17/16 11:20	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M20-12ft. DUP	16-10-1242-10-A	10/16/16 14:35	Air	GC 54	N/A	10/17/16 11:24	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
M20-7ft.	16-10-1242-11-A	10/16/16 14:22	Air	GC 54	N/A	10/17/16 11:27	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	
Method Blank	099-12-166-974	N/A	Air	GC 54	N/A	10/17/16 10:43	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Hydrogen Sulfide		ND		1.0		1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M1-22ft.	16-10-1242-1-A	10/16/16 15:30	Air	GC/MS II	N/A	10/17/16 18:40	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	8.0	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	33	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	6.0	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	9.0	2.2	1.00	
4-Ethyltoluene	2.5	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 2 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	8.9	2.2	1.00	
p/m-Xylene	32	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	12	3.4	1.00	
Toluene	41	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	2.5	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	57-129	
1,2-Dichloroethane-d4	90	47-137	
Toluene-d8	96	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 3 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M5-7ft.	16-10-1242-2-A	10/16/16 15:03	Air	GC/MS II	N/A	10/17/16 16:54	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	15	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	39	2.2	1.00	
4-Ethyltoluene	11	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 4 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	44	2.2	1.00	
p/m-Xylene	140	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	9.4	3.4	1.00	
Toluene	190	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	12	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	30	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	57-129	
1,2-Dichloroethane-d4	91	47-137	
Toluene-d8	96	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 5 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M5-12ft.	16-10-1242-3-A	10/16/16 15:09	Air	GC/MS II	N/A	10/17/16 15:59	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	11	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	24	4.4	1.00	
Carbon Disulfide	42	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.7	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	58	2.2	1.00	
4-Ethyltoluene	24	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	26	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 6 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	74	2.2	1.00	
p/m-Xylene	230	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	200	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	29	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	70	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	57-129	
1,2-Dichloroethane-d4	90	47-137	
Toluene-d8	93	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 7 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M5-22ft.	16-10-1242-4-A	10/16/16 15:13	Air	GC/MS II	N/A	10/17/16 15:06	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	2.8	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	11	4.4	1.00	
Carbon Disulfide	ND	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	4.3	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	16	2.2	1.00	
4-Ethyltoluene	9.5	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 8 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	19	2.2	1.00	
p/m-Xylene	74	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	4.1	3.4	1.00	
Toluene	57	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	8.6	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	27	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	103	57-129	
1,2-Dichloroethane-d4	90	47-137	
Toluene-d8	97	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 9 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M9-12ft.	16-10-1242-5-A	10/16/16 15:49	Air	GC/MS II	N/A	10/17/16 17:46	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	37	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	31	4.4	1.00	
Carbon Disulfide	130	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	6.4	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	86	2.2	1.00	
4-Ethyltoluene	22	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	31	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 10 of 26

Parameter	Result	RL	DF	Qualifiers
o-Xylene	97	2.2	1.00	
p/m-Xylene	300	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	25	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	58	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	102	57-129		
1,2-Dichloroethane-d4	87	47-137		
Toluene-d8	95	78-156		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M9-12ft.	16-10-1242-5-A	10/16/16 15:49	Air	GC/MS II	N/A	10/17/16 21:18	161017L02

Parameter	Result	RL	DF	Qualifiers
Toluene	360	38	2.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	98	57-129		
1,2-Dichloroethane-d4	90	47-137		
Toluene-d8	95	78-156		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 11 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M9-22ft.	16-10-1242-6-A	10/16/16 15:58	Air	GC/MS II	N/A	10/17/16 19:36	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	12	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	15	4.4	1.00	
Carbon Disulfide	53	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	10	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	40	2.2	1.00	
4-Ethyltoluene	13	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 12 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	42	2.2	1.00	
p/m-Xylene	150	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	160	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	10	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	26	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	57-129	
1,2-Dichloroethane-d4	91	47-137	
Toluene-d8	95	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 13 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M15-12ft.	16-10-1242-7-A	10/16/16 14:46	Air	GC/MS II	N/A	10/17/16 20:30	161017L02

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	120	1.00	
Benzene	33	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	9.0	4.4	1.00	
Carbon Disulfide	260	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	50	2.2	1.00	
4-Ethyltoluene	13	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 14 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	46	2.2	1.00	
p/m-Xylene	160	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	210	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	15	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	35	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	57-129	
1,2-Dichloroethane-d4	91	47-137	
Toluene-d8	92	78-156	

Return to Contents

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Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 15 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M15-22ft.	16-10-1242-8-A	10/16/16 14:52	Air	GC/MS NN	N/A	10/17/16 19:37	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	89	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	14	4.4	1.00	
Carbon Disulfide	ND	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	79	2.2	1.00	
4-Ethyltoluene	23	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	28	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 16 of 26

Parameter	Result	RL	DF	Qualifiers
o-Xylene	64	2.2	1.00	
p/m-Xylene	230	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	23	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	58	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	90	57-129		
1,2-Dichloroethane-d4	82	47-137		
Toluene-d8	99	78-156		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M15-22ft.	16-10-1242-8-A	10/16/16 14:52	Air	GC/MS NN	N/A	10/17/16 21:14	161017L02

Parameter	Result	RL	DF	Qualifiers
Toluene	510	47	2.50	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	87	57-129		
1,2-Dichloroethane-d4	82	47-137		
Toluene-d8	95	78-156		

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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 17 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M20-12ft.	16-10-1242-9-A	10/16/16 14:27	Air	GC/MS NN	N/A	10/17/16 16:58	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	17	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	32	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	35	2.2	1.00	
4-Ethyltoluene	11	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 18 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	43	2.2	1.00	
p/m-Xylene	130	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	190	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	11	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	24	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	84	57-129	
1,2-Dichloroethane-d4	85	47-137	
Toluene-d8	92	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 19 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M20-12ft. DUP	16-10-1242-10-A	10/16/16 14:35	Air	GC/MS NN	N/A	10/17/16 17:50	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	19	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	42	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	38	2.2	1.00	
4-Ethyltoluene	11	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 20 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	44	2.2	1.00	
p/m-Xylene	150	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	220	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	11	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	24	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	84	57-129	
1,2-Dichloroethane-d4	82	47-137	
Toluene-d8	90	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 21 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M20-7ft.	16-10-1242-11-A	10/16/16 14:22	Air	GC/MS NN	N/A	10/17/16 18:43	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	3.4	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	11	2.2	1.00	
4-Ethyltoluene	4.1	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 22 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	14	2.2	1.00	
p/m-Xylene	43	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	51	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	4.4	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	10	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	82	57-129	
1,2-Dichloroethane-d4	83	47-137	
Toluene-d8	90	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 23 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-981-7063	N/A	Air	GC/MS II	N/A	10/17/16 14:14	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 24 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	57-129	
1,2-Dichloroethane-d4	91	47-137	
Toluene-d8	97	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 25 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-981-7065	N/A	Air	GC/MS NN	N/A	10/17/16 15:07	161017L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	31	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 26 of 26

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	19	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	76	57-129	
1,2-Dichloroethane-d4	84	47-137	
Toluene-d8	91	78-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-3M
Units: ppm (v/v)

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M1-22ft.	16-10-1242-1-A	10/16/16 15:30	Air	GC 61	N/A	10/17/16 12:28	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		17		1.2		1.00	
M5-7ft.	16-10-1242-2-A	10/16/16 15:03	Air	GC 61	N/A	10/17/16 12:57	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M5-12ft.	16-10-1242-3-A	10/16/16 15:09	Air	GC 61	N/A	10/17/16 13:20	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M5-22ft.	16-10-1242-4-A	10/16/16 15:13	Air	GC 61	N/A	10/17/16 13:48	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M9-12ft.	16-10-1242-5-A	10/16/16 15:49	Air	GC 61	N/A	10/17/16 14:12	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		1.3		1.2		1.00	
M9-22ft.	16-10-1242-6-A	10/16/16 15:58	Air	GC 61	N/A	10/17/16 16:26	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		120		1.2		1.00	
M15-12ft.	16-10-1242-7-A	10/16/16 14:46	Air	GC 61	N/A	10/17/16 16:49	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		11000		5.0		4.00	
M15-22ft.	16-10-1242-8-A	10/16/16 14:52	Air	GC 61	N/A	10/17/16 17:11	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		11000		5.0		4.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-3M
Units: ppm (v/v)

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M20-12ft.	16-10-1242-9-A	10/16/16 14:27	Air	GC 61	N/A	10/17/16 14:34	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M20-12ft. DUP	16-10-1242-10-A	10/16/16 14:35	Air	GC 61	N/A	10/17/16 14:55	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M20-7ft.	16-10-1242-11-A	10/16/16 14:22	Air	GC 61	N/A	10/17/16 15:18	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
Method Blank	099-12-476-509	N/A	Air	GC 61	N/A	10/17/16 12:02	161017L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Sample Duplicate

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA 16

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
M20-7ft.	Sample	Air	GC 54	N/A	10/17/16 11:27	161017D01
M20-7ft.	Sample Duplicate	Air	GC 54	N/A	10/17/16 11:31	161017D01

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Hydrogen Sulfide	ND	ND	N/A	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: ASTM D-1946

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-16-444-497	LCS	Air	GC 65	N/A	10/17/16 11:29	161017L01			
099-16-444-497	LCSD	Air	GC 65	N/A	10/17/16 11:46	161017L01			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon Dioxide	150000	149100	99	152400	102	80-120	2	0-30	
Oxygen (+ Argon)	40100	39860	99	39310	98	80-120	1	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA 16

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-166-974	LCS	Air	GC 54	N/A	10/17/16 10:38	161017L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Hydrogen Sulfide	5.030	4.977	99	80-120	

Return to Contents



Calscience

Quality Control - LCS/LCSD

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-981-7063	LCS	Air	GC/MS II	N/A	10/17/16 11:35	161017L02
099-12-981-7063	LCSD	Air	GC/MS II	N/A	10/17/16 12:26	161017L02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	51.80	87	53.23	90	50-150	33-167	3	0-35	
Benzene	79.87	77.95	98	79.28	99	60-156	44-172	2	0-40	
Benzyl Chloride	129.4	97.28	75	97.33	75	50-150	33-167	0	0-35	
Bromodichloromethane	167.5	160.7	96	162.2	97	50-150	33-167	1	0-35	
Bromoform	258.4	261.6	101	263.3	102	50-150	33-167	1	0-38	
Bromomethane	97.08	89.64	92	92.29	95	50-150	33-167	3	0-35	
2-Butanone	73.73	62.46	85	63.04	86	50-150	33-167	1	0-35	
Carbon Disulfide	77.85	70.60	91	70.98	91	50-150	33-167	1	0-35	
Carbon Tetrachloride	157.3	150.5	96	152.0	97	64-154	49-169	1	0-32	
Chlorobenzene	115.1	114.9	100	116.5	101	50-150	33-167	1	0-35	
Chloroethane	65.96	60.47	92	62.32	94	50-150	33-167	3	0-35	
Chloroform	122.1	113.4	93	114.2	94	50-150	33-167	1	0-35	
Chloromethane	51.63	45.92	89	46.06	89	50-150	33-167	0	0-35	
Dibromochloromethane	213.0	205.3	96	207.0	97	50-150	33-167	1	0-35	
Dichlorodifluoromethane	123.6	113.8	92	114.6	93	50-150	33-167	1	0-35	
1,1-Dichloroethane	101.2	93.79	93	94.27	93	50-150	33-167	1	0-35	
1,1-Dichloroethene	99.12	89.66	90	77.38	78	50-150	33-167	15	0-35	
1,2-Dibromoethane	192.1	192.5	100	193.1	101	54-144	39-159	0	0-36	
Dichlorotetrafluoroethane	174.8	162.1	93	164.7	94	50-150	33-167	2	0-35	
1,2-Dichlorobenzene	150.3	144.4	96	146.2	97	34-160	13-181	1	0-47	
1,2-Dichloroethane	101.2	91.38	90	91.64	91	69-153	55-167	0	0-35	
1,2-Dichloropropane	115.5	110.6	96	111.2	96	67-157	52-172	1	0-35	
1,3-Dichlorobenzene	150.3	149.6	100	149.8	100	50-150	33-167	0	0-35	
1,4-Dichlorobenzene	150.3	147.3	98	149.8	100	36-156	16-176	2	0-47	
c-1,3-Dichloropropene	113.5	113.9	100	115.0	101	61-157	45-173	1	0-35	
c-1,2-Dichloroethene	99.12	97.14	98	98.36	99	50-150	33-167	1	0-35	
t-1,2-Dichloroethene	99.12	96.33	97	97.98	99	50-150	33-167	2	0-35	
t-1,3-Dichloropropene	113.5	114.9	101	116.7	103	50-150	33-167	2	0-35	
Ethylbenzene	108.6	105.2	97	105.6	97	52-154	35-171	0	0-38	
4-Ethyltoluene	122.9	118.8	97	120.0	98	50-150	33-167	1	0-35	
Hexachloro-1,3-Butadiene	266.6	215.3	81	224.6	84	50-150	33-167	4	0-35	
2-Hexanone	102.4	94.78	93	95.43	93	50-150	33-167	1	0-35	
Methyl-t-Butyl Ether (MTBE)	90.13	83.07	92	83.95	93	50-150	33-167	1	0-35	
Methylene Chloride	86.84	78.52	90	78.26	90	50-150	33-167	0	0-35	
4-Methyl-2-Pentanone	102.4	97.24	95	98.05	96	50-150	33-167	1	0-35	
o-Xylene	108.6	100.9	93	101.4	93	52-148	36-164	0	0-38	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 4 of 7

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
p/m-Xylene	217.1	204.9	94	205.4	95	42-156	23-175	0	0-41	
Styrene	106.5	88.16	83	88.40	83	50-150	33-167	0	0-35	
Tetrachloroethene	169.6	169.7	100	170.1	100	56-152	40-168	0	0-40	
Toluene	94.21	87.93	93	88.56	94	56-146	41-161	1	0-43	
Trichloroethene	134.3	133.0	99	134.5	100	63-159	47-175	1	0-34	
Trichlorofluoromethane	140.5	123.5	88	127.0	90	50-150	33-167	3	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	183.9	96	185.0	97	50-150	33-167	1	0-35	
1,1,1-Trichloroethane	136.4	128.9	94	129.9	95	50-150	33-167	1	0-35	
1,1,2-Trichloroethane	136.4	136.8	100	137.6	101	65-149	51-163	1	0-37	
1,3,5-Trimethylbenzene	122.9	116.7	95	118.0	96	50-150	33-167	1	0-35	
1,1,2,2-Tetrachloroethane	171.6	163.9	96	164.7	96	50-150	33-167	0	0-35	
1,2,4-Trimethylbenzene	122.9	118.7	97	118.7	97	50-150	33-167	0	0-35	
1,2,4-Trichlorobenzene	185.5	133.8	72	144.4	78	50-150	33-167	8	0-35	
Vinyl Acetate	88.03	71.94	82	72.44	82	50-150	33-167	1	0-35	
Vinyl Chloride	63.91	56.50	88	58.99	92	45-177	23-199	4	0-36	

Total number of LCS compounds: 51

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-981-7065	LCS	Air	GC/MS NN	N/A	10/17/16 12:21	161017L02
099-12-981-7065	LCSD	Air	GC/MS NN	N/A	10/17/16 13:14	161017L02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	48.31	81	48.80	82	50-150	33-167	1	0-35	
Benzene	79.87	73.40	92	72.25	90	60-156	44-172	2	0-40	
Benzyl Chloride	129.4	134.2	104	126.3	98	50-150	33-167	6	0-35	
Bromodichloromethane	167.5	154.2	92	152.8	91	50-150	33-167	1	0-35	
Bromoform	258.4	270.6	105	268.4	104	50-150	33-167	1	0-38	
Bromomethane	97.08	77.14	79	79.26	82	50-150	33-167	3	0-35	
2-Butanone	73.73	60.51	82	60.18	82	50-150	33-167	1	0-35	
Carbon Disulfide	77.85	64.08	82	64.69	83	50-150	33-167	1	0-35	
Carbon Tetrachloride	157.3	159.3	101	158.6	101	64-154	49-169	0	0-32	
Chlorobenzene	115.1	122.9	107	121.4	105	50-150	33-167	1	0-35	
Chloroethane	65.96	53.25	81	54.18	82	50-150	33-167	2	0-35	
Chloroform	122.1	107.2	88	107.2	88	50-150	33-167	0	0-35	
Chloromethane	51.63	41.51	80	42.46	82	50-150	33-167	2	0-35	
Dibromochloromethane	213.0	233.5	110	232.2	109	50-150	33-167	1	0-35	
Dichlorodifluoromethane	123.6	105.8	86	105.2	85	50-150	33-167	1	0-35	
1,1-Dichloroethane	101.2	84.54	84	84.22	83	50-150	33-167	0	0-35	
1,1-Dichloroethene	99.12	83.46	84	82.99	84	50-150	33-167	1	0-35	
1,2-Dibromoethane	192.1	203.0	106	199.6	104	54-144	39-159	2	0-36	
Dichlorotetrafluoroethane	174.8	146.1	84	148.9	85	50-150	33-167	2	0-35	
1,2-Dichlorobenzene	150.3	178.6	119	170.9	114	34-160	13-181	4	0-47	
1,2-Dichloroethane	101.2	87.89	87	86.81	86	69-153	55-167	1	0-35	
1,2-Dichloropropane	115.5	99.77	86	98.63	85	67-157	52-172	1	0-35	
1,3-Dichlorobenzene	150.3	177.6	118	170.4	113	50-150	33-167	4	0-35	
1,4-Dichlorobenzene	150.3	177.0	118	169.9	113	36-156	16-176	4	0-47	
c-1,3-Dichloropropene	113.5	105.8	93	104.2	92	61-157	45-173	2	0-35	
c-1,2-Dichloroethene	99.12	94.12	95	93.44	94	50-150	33-167	1	0-35	
t-1,2-Dichloroethene	99.12	92.94	94	92.18	93	50-150	33-167	1	0-35	
t-1,3-Dichloropropene	113.5	107.8	95	106.9	94	50-150	33-167	1	0-35	
Ethylbenzene	108.6	109.3	101	107.3	99	52-154	35-171	2	0-38	
4-Ethyltoluene	122.9	136.4	111	133.3	108	50-150	33-167	2	0-35	
Hexachloro-1,3-Butadiene	266.6	281.1	105	283.2	106	50-150	33-167	1	0-35	
2-Hexanone	102.4	96.22	94	94.60	92	50-150	33-167	2	0-35	
Methyl-t-Butyl Ether (MTBE)	90.13	76.55	85	76.28	85	50-150	33-167	0	0-35	
Methylene Chloride	86.84	72.76	84	71.84	83	50-150	33-167	1	0-35	
4-Methyl-2-Pentanone	102.4	89.24	87	88.68	87	50-150	33-167	1	0-35	
o-Xylene	108.6	108.2	100	107.0	99	52-148	36-164	1	0-38	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-15M

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 6 of 7

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
p/m-Xylene	217.1	228.8	105	226.3	104	42-156	23-175	1	0-41	
Styrene	106.5	104.9	99	102.6	96	50-150	33-167	2	0-35	
Tetrachloroethene	169.6	172.1	101	172.1	102	56-152	40-168	0	0-40	
Toluene	94.21	91.73	97	90.73	96	56-146	41-161	1	0-43	
Trichloroethene	134.3	130.0	97	128.1	95	63-159	47-175	1	0-34	
Trichlorofluoromethane	140.5	104.5	74	108.9	78	50-150	33-167	4	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	170.9	89	171.7	90	50-150	33-167	0	0-35	
1,1,1-Trichloroethane	136.4	126.1	92	125.6	92	50-150	33-167	0	0-35	
1,1,2-Trichloroethane	136.4	131.3	96	130.1	95	65-149	51-163	1	0-37	
1,3,5-Trimethylbenzene	122.9	137.7	112	134.9	110	50-150	33-167	2	0-35	
1,1,2,2-Tetrachloroethane	171.6	173.5	101	170.3	99	50-150	33-167	2	0-35	
1,2,4-Trimethylbenzene	122.9	140.4	114	137.1	112	50-150	33-167	2	0-35	
1,2,4-Trichlorobenzene	185.5	223.4	120	214.3	116	50-150	33-167	4	0-35	
Vinyl Acetate	88.03	71.75	82	70.63	80	50-150	33-167	2	0-35	
Vinyl Chloride	63.91	51.74	81	52.77	83	45-177	23-199	2	0-36	

Total number of LCS compounds: 51

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 10/17/16
Work Order: 16-10-1242
Preparation: N/A
Method: EPA TO-3M

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-476-509	LCS	Air	GC 61	N/A	10/17/16 11:13	161017L01
099-12-476-509	LCSD	Air	GC 61	N/A	10/17/16 11:39	161017L01

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	102.0	94.91	93	94.13	92	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 16-10-1242

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
ASTM D-1946	N/A	929	GC 65	2
EPA 16	N/A	929	GC 54	2
EPA 16	N/A	1078	GC 54	2
EPA TO-15M	N/A	866	GC/MS II	2
EPA TO-15M	N/A	866	GC/MS NN	2
EPA TO-3M	N/A	929	GC 61	2

Glossary of Terms and Qualifiers

Work Order: 16-10-1242

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

7440 Lincoln Way, Garden Grove, CA 92641-1427 • (714) 895-5494
For courier service / sample drop off information, contact us@eurofins.com or call us.

CHAIN OF CUSTODY RECORD

DATE: 10/17/16

PAGE: 1 OF 2

16-10-1242

WO # / LAB USE ONLY

LABORATORY CLIENT: Environmental Management Strategies / Environmental Support Technologies

ADDRESS: 8 Goodyear, Suite 125

CITY: Irvine STATE: CA ZIP: 92618

TEL: (949) 679-9500 E-MAIL: aseverini@est-inc.com mmarello@est-inc.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

24 hold time for hydrogen sulfide
72 hour hold time for all others
Report methane, O2, CO2 and H2S in ppmv
Report VOCs in ug/M3

CLIENT PROJECT NAME / NUMBER:

TRC/LAUSD Roosevelt High School, Los Angeles

PROJECT CONTACT:

Anthony Severini

P.O. NO.:

EST 3068

SAMPLER(S): (PRINT)

Michael Marello

REQUESTED ANALYSES

Please check box or fill in blank as needed.

<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		LOG CODE:							
<input type="checkbox"/> COELT EDF	GLOBAL ID:								
SPECIAL INSTRUCTIONS:			Unpreserved Preserved Field Filtered						
24 hold time for hydrogen sulfide 72 hour hold time for all others Report methane, O2, CO2 and H2S in ppmv Report VOCs in ug/M3									
				LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
						DATE	TIME		
				1	M1 - 22 ft.	10/16/16	15:30	Soil Gas	2
				2	M5 - 7 ft.	10/16/16	15:03	Soil Gas	2
				3	M5 - 12 ft.	10/16/16	15:09	Soil Gas	2
				4	M5 - 22 ft.	10/16/16	15:13	Soil Gas	2
				5	M9 - 12 ft.	10/16/16	15:49	Soil Gas	2
				6	M9 - 22 ft.	10/16/16	15:58	Soil Gas	2
			7	M15 - 12 ft.	10/16/16	14:46	Soil Gas	2	
8	M15 - 22 ft.	↓	14:52	↓	3				
9	M20 - 12 ft.		14:27		2				
10	M20 - 12 ft. Dup		14:35		2				

Received by: (Signature/Affiliation)

Weyate ECI

Date: 10/17/16

Time: 0745

Received by: (Signature/Affiliation)

Date:

Time:

Received by: (Signature/Affiliation)

Date:

Time:

SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: EMS

DATE: 10 / 17 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): _____ °C (w/ CF): _____ °C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☒ Air ☐ Filter

Checked by: 426

CUSTODY SEAL:

Cooler ☐ Present and Intact

☐ Present but Not Intact

☐ Not Present

☒ N/A

Checked by: 426

Sample(s) ☐ Present and Intact

☐ Present but Not Intact

☐ Not Present

☒ N/A

Checked by: 426

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples

Yes No N/A

☒ ☐ ☐

COC document(s) received complete

☒ ☐ ☐

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC

☒ ☐ ☐

Sample container label(s) consistent with COC

☒ ☐ ☐

Sample container(s) intact and in good condition

☐ ☒ ☐

Proper containers for analyses requested

☒ ☐ ☐

Sufficient volume/mass for analyses requested

☒ ☐ ☐

Samples received within holding time

☒ ☐ ☐

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen

☐ ☐ ☒

Proper preservation chemical(s) noted on COC and/or sample container

☐ ☐ ☒

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals

Container(s) for certain analysis free of headspace

☐ ☐ ☒

☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation

☒ ☐ ☐

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na} ☐ 100PJ ☐ 100PJ_{na} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s

☐ 500PB ☐ 1AGB ☐ 1AGB_{na} ☐ 1AGB_s ☐ 1PB ☐ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☒ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄,

Labeled/Checked by: 426

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znna = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 15

SAMPLE ANOMALY REPORT

DATE: 10 / 17 / 2016

SAMPLES, CONTAINERS, AND LABELS:

Comments

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
 - ☐ Project information
 - ☐ Client sample ID
 - ☐ Sampling date and/or time
 - ☐ Number of container(s)
 - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
 - ☐ Broken
 - ☐ Water present in sample container
- ☒ Air sample container(s) compromised (comment)
 - ☐ Flat
 - ☐ Very low in volume
 - ☒ Leaking (not transferred; duplicate bag submitted)
 - ☐ Leaking (transferred into ECI Tedlar™ bags*)
 - ☐ Leaking (transferred into client's Tedlar™ bags*)

(4+5 B) 1 out of 2 TEDLARS RECEIVED LEAKING (CONTINUOUS)

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 426

Reviewed by: 15

** Record the total number of containers (i.e., vials or bottles) for the affected sample.



WORK ORDER NUMBER: 17-03-1404

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Environmental Management Strategies, Inc.

Client Project Name: TRC/LAUSD Roosevelt High School, Los Angeles

Attention: Anthony Severini
8 Goodyear, Suite 125
Irvine, CA 92618-3745

A handwritten signature in black ink, appearing to read "Don Burley".

Approved for release on 03/24/2017 by:
Don Burley
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: TRC/LAUSD Roosevelt High School, Los Angeles
 Work Order Number: 17-03-1404

1	Work Order Narrative.	3
2	Sample Summary.	4
3	Client Sample Data.	5
	3.1 EPA TO-3 (M) C1-C6 (Air).	5
4	Quality Control Sample Data.	6
	4.1 LCS/LCSD.	6
5	Sample Analysis Summary.	7
6	Glossary of Terms and Qualifiers.	8
7	Chain-of-Custody/Sample Receipt Form.	9

Work Order Narrative

Work Order: 17-03-1404

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/20/17. They were assigned to Work Order 17-03-1404.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



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Sample Summary

Client: Environmental Management Strategies, Inc.	Work Order: 17-03-1404
8 Goodyear, Suite 125	Project Name: TRC/LAUSD Roosevelt High School, Los Angeles
Irvine, CA 92618-3745	PO Number: EST 3068
	Date/Time Received: 03/20/17 09:50
	Number of Containers: 9

Attn: Anthony Severini

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
M17-7' Prim	17-03-1404-1	03/19/17 10:31	1	Air
M17-12' Prim	17-03-1404-2	03/19/17 10:37	1	Air
M19-12' Prim	17-03-1404-3	03/19/17 11:56	1	Air
M9-7' Prim	17-03-1404-4	03/19/17 12:50	1	Air
M5-12 Prim	17-03-1404-5	03/19/17 14:10	1	Air


Return to Contents



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Analytical Report

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 03/20/17
Work Order: 17-03-1404
Preparation: N/A
Method: EPA TO-3M
Units: ppm (v/v)

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
M17-7' Prim	17-03-1404-1-A	03/19/17 10:31	Air	GC 52	N/A	03/20/17 14:14	170320L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M17-12' Prim	17-03-1404-2-A	03/19/17 10:37	Air	GC 52	N/A	03/20/17 14:42	170320L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M19-12' Prim	17-03-1404-3-A	03/19/17 11:56	Air	GC 52	N/A	03/20/17 15:09	170320L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M9-7' Prim	17-03-1404-4-A	03/19/17 12:50	Air	GC 52	N/A	03/20/17 15:36	170320L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
M5-12 Prim	17-03-1404-5-A	03/19/17 14:10	Air	GC 52	N/A	03/20/17 16:04	170320L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	
Method Blank	099-12-476-536	N/A	Air	GC 52	N/A	03/20/17 13:33	170320L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		1.2		1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Quality Control - LCS/LCSD

Environmental Management Strategies, Inc.
8 Goodyear, Suite 125
Irvine, CA 92618-3745

Date Received: 03/20/17
Work Order: 17-03-1404
Preparation: N/A
Method: EPA TO-3M

Project: TRC/LAUSD Roosevelt High School, Los Angeles

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-476-536	LCS	Air	GC 52	N/A	03/20/17 12:35	170320L01
099-12-476-536	LCSD	Air	GC 52	N/A	03/20/17 13:02	170320L01

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	102.0	99.14	97	98.83	97	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Sample Analysis Summary Report

Work Order: 17-03-1404

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA TO-3M	N/A	1074	GC 52	2


Return to Contents

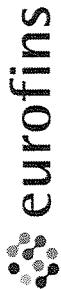
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 17-03-1404

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofins.com or call us.

LABORATORY CLIENT:

Environmental Management Strategies / Environmental Support Technologies

ADDRESS:

8 Goodyear, Suite 125

CITY:

Irvine

STATE:

CA

ZIP:

92618

TEL:

(949) 679-9500

E-MAIL:

aseverini@est-inc.com mmarello@est-inc.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Report methane in ppmv
Use bag marked "Prim" (Primary) for all analyses and QA/QC.
Use bag marked "Dup" (Duplicate) is insufficient volume in Primary.
Duplicate for M17-7 not submitted. Defective bag (leak).

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
1	M17-7' Prim	3/19/17	10:31	Soil Gas	1
2	M17-12' Prim	3/19/17	10:37	Soil Gas	1
3	M19-12' Prim	3/19/17	11:56	Soil Gas	1
4	M9-7' Prim	3/19/17	12:50	Soil Gas	1
5	M5-12 Prim	3/19/17	14:10	Soil Gas	1
6	M17-12' Dup	3/19/17	14:57	Soil Gas	1
7	M19-12' Dup	3/19/17	15:10	Soil Gas	1
8	M9-7' Dup	3/19/17	14:33	Soil Gas	1
9	M5-12 Dup	3/19/17	14:22	Soil Gas	1

Relinquished by: (Signature)	Received by: (Signature/Affiliation)
Relinquished by: (Signature)	Received by: (Signature/Affiliation)
Relinquished by: (Signature)	Received by: (Signature/Affiliation)

WO # / LAB USE ONLY
17-03-1404

DATE: 3/20/2017

PAGE: 1 OF 1

CLIENT PROJECT NAME / NUMBER:

TRC/LAUSD Roosevelt High School, Los Angeles

P.O. NO.:

EST 3068

PROJECT CONTACT:

Anthony Severini

SAMPLER(S): (PRINT)

Michael Marello

REQUESTED ANALYSES

Please check box or fill in blank as needed.

<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	<input type="checkbox"/> TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	<input type="checkbox"/> BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	<input type="checkbox"/> VOCs (8260)	<input type="checkbox"/> Oxygenates (8260)	<input type="checkbox"/> Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	<input type="checkbox"/> SVOCs (8270)	<input type="checkbox"/> Pesticides (8081)	<input type="checkbox"/> PCBs (8082)	<input type="checkbox"/> PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	<input type="checkbox"/> T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	<input type="checkbox"/> Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	<input type="checkbox"/> Methane EPA TO-3	<input type="checkbox"/> Hydrogen Sulfide EPA 3	<input type="checkbox"/> CO2, O2 ASTM 1946	<input type="checkbox"/> HOLD (Duplicate)
--	--	--	---	--------------------------------------	--	---	---------------------------------------	--	--------------------------------------	---	---	--	---	---	--	---

Date: 3/20/17	Time: 0950
Date:	Time:
Date:	Time:

SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: EMS / EST

DATE: 03 / 20 / 2017
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): _____ °C (w/ CF): _____ °C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☒ Air ☐ Filter

Checked by: 836
CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☒ N/A

Checked by: 836

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 836
SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s
☐ 500PB ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s ☐ 1PB ☐ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☒ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____) ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO₃, **na** = NaOH, **na₂** = Na₂S₂O₃, **p** = H₃PO₄, Labeled/Checked by: 836
s = H₂SO₄, **u** = ultra-pure, **x** = Na₂SO₃+NaHSO₄·H₂O, **znna** = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 300