

Final Removal Action Completion Report Building G Area

Malibu High School
30215 Morning View Drive
Malibu, California

Prepared for:
Santa Monica/Malibu School District
Malibu, California

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Acronyms and Abbreviations

Acronym	Definition
4,4'-DDE	4,4'-Dichlorodiphenyldichloroethylene
AL	action level
AOIs	Areas of Interest
AQMD	South Coast Air Quality Management District
bgs	below ground surface
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code Of Federal Regulations
DTSC	Department of Toxic Substances Control
ENVIRON	ENVIRON International Corporation
HASP	Health and Safety Plan
HHRE	Human Health Risk Evaluation
JCES	Juan Cabrillo Elementary School
mg/kg	milligrams per kilogram
mg/m^3	milligrams per cubic meter
MHS	Malibu High School
NOE	Notice of Exemption
OSHA	Occupational Safety And Health Administration
PCB	polychlorinated biphenyl
PEA	Preliminary Environmental Assessment
PG	Professional Geologist
PM_{10}	Particulate Matter Of Size Less Than Or Equal To 10 Micrometers
RA	removal action
RACR	Removal Action Completion Report
RAOs	Removal Action Objectives
RAW	Removal Action Work Plan
RSL	Regional Screening Level
the District	Santa Monica/Malibu Unified School District
µg/kg	microgram per kilogram
$µg/m^3$	microgram per cubic meter
USEPA	United States Environmental Protection Agency
yd^3	cubic yards

Executive Summary

ENVIRON International Corporation (ENVIRON), on behalf of the Santa Monica/Malibu School District (the District), has prepared this Removal Action Completion Report (RACR) to document soil removal activities conducted at the planter area, east of Building G (Building G Area) of Malibu High School (MHS or site), located at 30215 Morning View Drive, Malibu, California (see Figures 1 and 2; for Building G Area see Figure 3). Soil removal was conducted in accordance with ENVIRON's Removal Action Work Plan (RAW) entitled "*Removal Action Work Plan, Building G Area, Malibu High School, 30215 Morning View Drive, Malibu, California*," which was submitted as a Draft RAW to the Department of Toxic Substances Control (DTSC) on November 6, 2014. DTSC approved the Draft RAW with no modifications in a letter dated December 15, 2014, after which the Final RAW was submitted to DTSC on December 17, 2014. DTSC is the designated lead agency pursuant to the March 14, 2014 Voluntary Investigation Agreement (Agreement) between the District and the DTSC.

Subsurface investigations conducted during the summer of 2014 in accordance with the DTSC approved *Draft Preliminary Environmental Assessment Work Plan* (PEA Work Plan), dated May 23, 2014, indicated that polychlorinated biphenyls (PCBs), specifically Aroclor 1254, were detected in shallow soil in the Building G Area. The soil sampling conducted in the Building G Area revealed a relatively small PCB-impacted area in which two or more adjacent borings contained Aroclor 1254 at a concentration that exceeded its United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) for residential use. These PCB exceedances were localized and confined to surficial soil in a planter area, directly adjacent to a concrete walkway, located east of Building G. Similar PCB exceedances were not observed in other areas at MHS and thus appear to be unique to the Building G Area. The area of Aroclor 1254-impacted soil consisted of an approximate 1.5-foot thick surficial layer, measuring approximately 38 feet long by 7 feet wide (see Figures 3 through 5).

ENVIRON conducted a Human Health Risk Evaluation (HHRE) of the Building G Area considering the current school use and potential future residential use. Under a school scenario, the estimated excess lifetime cancer risks before and after excavation are below the target cancer risk of $1x10^{-6}$. Under a residential scenario, before excavation, the estimated excess lifetime cancer risk for hypothetical future on-site residents are $1.5 x10^{-6}$. For the after excavation residential scenario (after excavating the two highest Aroclor 1254 detections exceeding 1000 micrograms per kilogram [µg/kg]), the estimated excess lifetime cancer risk for hypothetical future on-site residents was at the target cancer risk of $1x10^{-6}$. Therefore, although no remediation was necessary or recommended under the school scenario, because the District desired to be able to use the Building G Area for any purpose in the future (e.g., unrestricted use), the District and DTSC agreed that the soil containing the highest Aroclor 1254 concentrations in the Building G Area would be excavated to lower the residential cancer risk estimate to the target risk of $1x10^{-6}$.

A RAW was prepared to address the PCB-impacted soil in the Building G Area. The purpose of the RAW was to provide for limited excavation of Aroclor-1254 impacted shallow soil in the Building G Area of MHS, to conditions that allow for future unrestricted (i.e., residential) use.

This RACR documents work completed at the Building G Area as part of the DTSC-approved RAW. Pre-excavation and excavation activities occurred between December 21 and December 30, 2014, during MHS Winter Break. The planar footprint of the excavation encompassed the highest detected concentrations of Aroclor 1254; soil samples MH-SB-76 and MH-SB-118, as well as locations MH-SB-119 through MH-SB-121 and MH-SB-124. Approximately 15 cubic yards (yd^3) of soil was excavated, determined to be non-hazardous, and transported off site for disposal at the Waste Connections - Chiquita Landfill, located in Castaic, California.

Excavation of the highest detected concentrations of Aroclor 1254 (soil samples MH-SB-76 and MH-SB-118), lowered the residential human health based risk associated with the PCB-impacted soil in the Building G Area to the target risk of $1x10^{-6}$, providing a site that is suitable for unrestricted regulatory closure.

Based on the results of the excavation activities performed in the Building G Area, as described herein, the District respectfully requests that DTSC issue a “No Further Action” for the PCBs in shallow soil in the Building G Area.

1 Introduction

ENVIRON International Corporation (ENVIRON) has prepared this Removal Action Completion Report (RACR) on behalf of the Santa Monica/Malibu Unified School District (the District), to document soil removal activities conducted at the planter area, east of Building G (Building G Area) of Malibu High School (MHS or site), located at 30215 Morning View Drive, Malibu, California (see Figures 1 and 2; for Building G Area see Figure 3). The removal action (RA) was performed between December 21 and December 30, 2014, during the Winter Break when school was not in session. Excavation activities were performed in accordance with ENVIRON's Removal Action Work Plan (RAW), entitled "*Removal Action Work Plan, Building G Area, Malibu High School, 30215 Morning View Drive, Malibu, California*," which was submitted as a Draft RAW to the Department of Toxic Substances Control (DTSC) on November 6, 2014. DTSC approved the Draft RAW with no modifications in a letter dated December 15, 2014, after which the Final RAW was submitted to DTSC on December 17, 2014. DTSC is the designated lead agency pursuant to the March 14, 2014 Voluntary Investigation Agreement (Agreement) between the District and the DTSC.

1.1 Purpose

The purpose of this RACR is to document that remedial actions presented in the DTSC-approved RAW have been completed, and the removal action objectives were met.

1.2 Removal Action Objectives

The soil removal action in the Building G Area focused on the removal and disposal of a defined area containing the highest detected concentrations of Aroclor-1254 in soil and provided a permanent solution that reduced the toxicity, mobility, and volume of impacted soil. DTSC determined that the soil removal action was the preferred RA remedy in terms of the three technology evaluation criteria: effectiveness, implementability, and cost (as evaluated in the DTSC-approved RAW).

Removal action objectives (RAOs) were established to be protective of human health and the environment. RAOs were based upon the current environmental conditions and current and anticipated future uses of MHS and the Building G Area. The RAOs, as presented in the approved RAW, were to:

- Reduce concentrations of Aroclor 1254 in soil to minimize the human health-based risks associated with soil in the Building G Area to achieve unrestricted land use;
- Provide a site that is acceptable for regulatory closure under unrestricted scenario; and

Based on the RAOs, the excavation area, as depicted on Figure 3, was defined at and in proximity to the impacted shallow soil. The extent of the excavation was determined from: (1) information obtained during the Preliminary Environmental Assessment (PEA) investigation and subsequent soil step-out sampling at the Building G Area; and (2) risk management decisions based upon the current and anticipated future use of MHS and the Building G Area. Information used to develop the extent and dimensions of the excavation area included validated laboratory analytical results, historical uses, and operations at the Building G Area, and the Building G Area Human Health Risk Evaluation (HHRE).

1.3 Scope

The completed RA combined excavation of PCB-impacted soil with off-site disposal. Activities conducted to implement the RA are summarized below and described in greater detail in subsequent sections of this report.

- Conducted pre-excavation activities by defining the exclusion zone, identified areas to be fenced (including hillside), erected fencing to isolate the exclusion zone, and laid down plastic sheeting (Visqueen) adjacent to the excavation area, in areas traversed by earth moving equipment, and where roll-off bins are staged;
- Marked out the boundaries of the excavation using stakes and high visibility paint;
- Excavated PCB-impacted soil from the Building G Area per the DTSC-approved RAW (Figure 3);
- Conducted air and meteorological monitoring during excavation activities (Figure 4);
- Conducted post-excavation incremental soil sampling (Figure 5);
- Pre-characterized soil for off-site disposal using existing soil data;
- Loaded and transported excavated soil off site to a disposal facility (Figure 6); and
- Backfilled the excavation with DTSC-approved clean fill and restored the area to its original condition.

RA activities were conducted in accordance with a site-specific Health and Safety Plan (see Appendix B of the RAW) and a Transportation Plan (see Section 7 of the RAW).

2 Site Background and Characterization

On March 13, 2014, an Agreement was executed between the DTSC and the District to conduct a PEA at Juan Cabrillo Elementary School (JCES) and MHS to evaluate the environmental condition of soils at the schools. Accordingly, ENVIRON prepared and submitted a PEA Work Plan to DTSC on May 23, 2014 detailing the proposed soil, soil gas, and groundwater investigation at JCES and MHS. The PEA Work Plan was conditionally approved by DTSC on June 27, 2014. Initial field activities were conducted between June 30 and August 18, 2014 under DTSC's oversight and in accordance with the DTSC-approved PEA Work Plan. PEA sampling results were presented to the DTSC in two separate data transmittals. The first data transmittal entitled, "*Final Summary of Soil, Soil Vapor, and Groundwater Sampling Results, Juan Cabrillo Elementary School, 30237 Morning View Drive, Malibu, California,*" dated September 12, 2014, presented sampling results collected from JCES. The second data transmittal entitled "*Final Summary of Soil, Soil Vapor, and Groundwater Sampling Results, Malibu High School, 30215 Morning View Drive, Malibu, California*," dated September 23, 2014 presented sampling results collected from MHS. Based on the data collected as part of the PEA investigation, DTSC and the District identified one area for further action at MHS, the Building G Area. As a result, DTSC and the District signed a Second Amendment to the Agreement in November 2014, which outlined the RA.

The RAW was prepared at the request of the DTSC, pursuant to the Agreement, and in accordance with DTSC's guidance entitled "Removal Action Work Plans," dated September 23, 1998, to perform a removal action in the Building G Area at MHS. A RAW is one of two remedy selection documents that may be prepared for a hazardous substance release site pursuant to Health and Safety Code Section 25356.1, and is appropriate for removal actions that are projected to cost less than $2,000,000. DTSC approved ENVIRON's November 6, 2014 Draft RAW on December 15, 2014, and ENVIRON subsequently submitted a final RAW to DTSC on December 17, 2014.

2.1 Site Description

MHS is located in the Zuma Beach Area, in the City of Malibu, on the southern flank of the western portion of the Santa Monica Mountains, at 30215 Morning View Drive (Figure 2), 0.2 miles north of Pacific Coast Highway. MHS is comprised of approximately 80 acres (including areas leased to others) and consists of many buildings (Buildings A through K, and New Gymnasium). Construction of most of the buildings occurred in the 1960s and 1970s, except for Building K and the New Gymnasium, which were built in 2002. Most buildings at MHS are bordered by an approximately 8- to 10- foot wide concrete walkway and a concrete and/or vinyl siding overhang. Two large metal barn-like structures that are used for equipment storage and vehicle maintenance, including a bus washing station ("Bus Barn") are located in the northwestern portion of MHS. The terrain generally consists of rolling hills with a maximum topographic relief of approximately 90 feet and elevations ranging from approximately 80 to 170 feet above mean sea level. The topography at the site and its vicinity slopes gently southwesterly to the Pacific Ocean.

2.1.1 Land Use

MHS is owned by the District and is zoned for institutional use. Since construction, MHS has been used for educational purposes.

2.1.2 Historic Uses

In the late 1940s through early 50s, MHS appears to be mostly undeveloped and may have been used for activities related to dry land farming. MHS was used for educational purposes starting in the early 60s. Building H (the Auditorium and Kitchen), Building E (Middle School/Blue Building), Building F (Music), Building I (Graphic Arts), and the Bus Barn were developed from early to mid-1960s. Buildings A (Library), B/C (Administration), D (Science), G (Art, Woodshop), and the Old Gymnasium were completed by mid-70s. Building K and the New Gymnasium were built in 2002.

2.1.3 Adjacent Properties

MHS is located in the Zuma Beach Area, in the City of Malibu, California. MHS is comprised of Assessor Parcel Numbers 4469-017-900 (out of which 6.4 acres are shared with JCES), 4469-017-901, 4469-017-902, and 4469-017-903. The Building G Area is located within Parcel Number 4469-017-900. The following border MHS (Figure 2):

- To the north: residential properties;
- To the west: JCES;
- To the south: across from Mountain View Drive, is the Malibu United Church and Nursery School. Zuma Beach and the Pacific Coast Highway are located approximately 1,000 feet and 1,500 feet south of MHS; and
- To the east: residential properties and the Malibu Equestrian Center.[1]

2.2 Site Owner

MHS is owned by the District.

2.3 MHS Hydrology and Geology

Geology

Based on previous subsurface investigations and the United States Geologic Society Geologic Map (Yerkes and Campbell, 2005), the geology beneath MHS consists of two main units: the Young Non-Marine Terrace Deposits (Qyd) and the Monterey Shale (Tmt). These geologic units are further described below:

<u>Young Non-Marine Terrace Deposits</u>

This unit consists primarily of very stiff to stiff silty to sandy clay, interbedded with bedrock clasts. Non-marine terrace deposits are encountered from the surface or below surface fill to a maximum depth of 20 feet below ground surface (bgs) (Leighton, 2009).

[1] The Malibu Equestrian Center leases property from the District.

Monterey Shale

Interbedded claystone and siltstone of the Monterey Shale formation are encountered at depths ranging from 10 to 20 feet bgs (Leighton, 2009). The unit is described as light brown, moderately hard to hard, fractured, oxidized, and weathered, with calcite staining.

Two other geologic units are exposed at MHS: the Trancas Formation (Tr) and Zuma Volcanics (Tz). The Trancas Formation is aerially limited to a small portion on the northwest corner of MHS. The Zuma Volcanics geological unit is sporadically exposed in the north-northeastern half of MHS and appears to contact the Young Non-Marine Terrace and the Monterey Shale in the center of MHS.

Hydrogeology

MHS lies within the Malibu Hydrological Unit and the Truncas Canyon Hydrologic Sub-Area (Los Angeles Regional Water Quality Control Board, Basin Plan). There is no groundwater basin designated in the MHS area and groundwater is not assigned any beneficial uses according to the Basin Plan. Zuma Beach Coastal Waters are designated for recreational uses. Groundwater underlying the site is not used for drinking water. Drinking water at the site is supplied by the Metropolitan Water District of Southern California (MWDSC). MHS is bounded to the northwest by an ephemeral stream, designated by the City of Malibu as an Endangered Species Habitat Area.

During the PEA investigation, groundwater at MHS was encountered at depths ranging from approximately 51feet bgs to 62 feet bgs. The calculated groundwater gradient from the existing monitoring wells (MW-1 through MW-11) indicates that groundwater flows to the southwest, toward the Pacific Ocean.

2.4 Site Characterization

The PEA Work Plan identified 18 Areas of Interest (AOIs), AOI-1 through AOI-4, located at JCES and AOI-5 though AOI-18 located at MHS. The scope of the PEA Work Plan included soil, soil gas, and groundwater sampling. The results of sampling conducted during execution of the PEA Work Plan are provided in the final data transmittals for JCES and MHS. The final data transmittals were presented to the DTSC on September 5 and 23, respectively, and are also available electronically on DTSC's EnviroStor website.

This RACR focuses on the Building G Area, located within AOI-5 at MHS. AOI-5 addresses buildings constructed prior to 1981 at MHS. During implementation of the PEA Work Plan, 46 borings were advanced within AOI-5, out of which 7 were located in the "Building G Area." Upon review of initial soil sampling results, soil step-out sampling was conducted in the Building G Area. A description of the initial and step-out sampling conducted in the Building G Area is provided below.

2.4.1 Location and Description of the Building G Area

The Building G Area, within the MHS footprint, is comprised of the planters located immediately east of Building G and north of Building I. The area is composed of planters varying in width from 2 feet (east of Building G) to approximately 5 feet (north of Building I). Building G is bordered to the east by an 8-10 foot wide concrete walkway, followed by a 2-foot planter. The

north side of Building I does not have a concrete walkway; therefore the planter abuts the edge of Building I. Both Building G and Building I are bordered to the north and east by an open grassy area, surrounded by approximately 20-foot high hills and the Amphitheatre stairs (see Figures 3 and 4). Building G and Building I are used for art/ woodshop and graphic arts, respectively.

2.4.2 Characterization of the Building G Area

The Building G Area is depicted on Figure 3. In July 2014, as part of implementation of the PEA Work Plan, four borings (MH-SB-10, MH-SB-76, MH-SB-77, and MH-SB-79) were advanced in the planter area, abutting the concrete walkway, immediately east of Building G and three borings (MH-SB-11, MH-SB-13, MH-SB-14) were advanced in the planter area north of Building I (Figure 3). Soil samples were collected from the surface (0 – 0.5 feet bgs) and from 1.5 to 2 feet bgs and were analyzed for pesticides (organochlorine and organophosphates), herbicides, lead, and PCBs, using United Stated Environmental Protection Agency (USEPA) Methods 8081A, 8141A, 8151A, 6010, and 8082, respectively. Soil sampling results are presented on Figure 3. In summary:

- Of the organochlorine pesticides, 4,4'-dichlorodiphenyldichloroethylene (4,4'-DDE) was detected at concentrations ranging from 6 micrograms per kilograms (µg/kg) in surface soil sample MH-SB-11 to 59 µg/kg in surface sample MH-SB-10 and total chlordane was detected in one surface soil sample, MH-SB-13, at a concentration of 88 µg/kg. Detections of 4,4'-DDE and total chlordane were well below their respective Residential DTSC-Modified Regional Screening Level (RSL) or USEPA RSL for residential soil of 1,600 µg/kg and 1,800 µg/kg, respectively.
- Herbicides and organophosphates pesticides were not detected above their respective laboratory reporting limits in any of the soil samples.
- Lead was detected at concentrations ranging from 3.1 milligrams per kilogram (mg/kg) in MH-SB-76 at a depth of 1.5 feet bgs to 42 mg/kg in surface soil sample MH-SB-10. Lead detections were well below the DTSC-Modified RSL for residential soil of 80 mg/kg.
- Of the PCBs, Aroclor 1254 was the only PCB detected. Aroclor 1254 was detected at concentrations ranging from 130 µg/kg in soil sample MH-SB-77 at a depth of 2 feet bgs to 1,500 µg/kg in soil sample MH-SB-76 at the ground surface. Five soil samples, MH-SB-10 at the surface and 1.5 feet bgs, and surface samples MH-SB-76, MH-SB-77, and MH-SB-79, contained Aroclor 1254 at concentrations of 590 µg/kg, 270 µg/kg, 1,500 µg/kg, 720 µg/kg, and 700 µg/kg, respectively. These concentrations exceeded the USEPA RSL for residential soil of 240 µg/kg for Aroclor 1254. PCB sampling results are summarized on Figure 3.

Based on the results of the initial PEA investigation, 11 step out soil borings, MH-SB-114 through MH-SB-124, were advanced within the Building G Area (Figure 3). Twenty-two soil samples were collected from borings MH-SB-114 through MH-SB-124 and were analyzed for PCBs using USEPA Method 8082. Five of the 22 step-out soil samples, MH-SB-114, MH-SB-116, MH-SB-118, MH-SB-119, and MH-SB-120, contained Aroclor 1254 at concentrations of 800 µg/kg, 410 µg/kg, 1,100 µg/kg, 340 µg/kg, and 430 µg/kg, respectively, exceeding the USEPA RSL for residential soil. The step-out soil sampling results, combined

with the original soil sampling results, were used to evaluate the extent of Aroclor 1254 in soils in this area.

2.5 Nature and Extent of PCB-containing Soil in the Building G Area

Eighteen soil borings were advanced in the Building G Area, and 36 soil samples were analyzed for PCBs (18 soil samples from 0 to 0.5 feet bgs and 18 soil samples from 1.5 to 2 feet bgs). Soil sample results in the Building G Area for PCBs are illustrated on Figure 3.

Initial soil sampling results for PCBs and subsequent soil step-out sampling conducted immediately east of Building G, indicated that PCB detections were limited to Aroclor 1254. Maximum concentrations of Aroclor 1254, were detected in surface soil samples collected from borings MH-SB-76 (1,500 µg/kg) and MH-SB-118 (1,100 µg/kg) located adjacent to one another in the planter directly adjacent to the concrete walkway that abuts Building G. These exceedances were localized and confined to surficial soil in the planter. Similar exceedances were not observed in other areas at MHS and thus this situation appears to be unique to the Building G Area. PCB concentrations in this area are unlikely to pose a significant risk to public health because the concentrations are fairly low and access to the area is restricted. The average concentration (i.e., 95 per cent upper confidence limit [UCL] on the mean concentration) in the Building G Area is below the risk-based concentration for staff and students in a school-based scenario, as further discussed in Section 2.6.

2.6 Human Health Risk Evaluation

To evaluate the potential human health risks to current and potential future on-site populations due to exposure to the chemicals detected in soil in the Building G Area, a HHRE was performed. The HHRE was presented in Section 2.4 of the DTSC-approved RAW and evaluated the potential human health risks to current and potential future on-site populations both before and after soil excavation.

The HHRE concluded that, under a school scenario, chemicals in soil are not expected to result in adverse health effects to students and teachers/staff through direct contact both before and after excavation. Under a residential scenario, the HHRE concluded that chemicals in soil are not expected to result in adverse health effects to hypothetical future on-site residents through direct contact both before and after excavation. However, to achieve a target excess lifetime cancer risk of $1x10^{-6}$, the District agreed to conduct a RA to address the highest concentrations of Aroclor 1254 in shallow soil in the Building G Area.

3 Applicable or Relevant and Appropriate Requirements

Previous investigations in the Building G Area indicated the presence of the Aroclor 1254 in soil exceeding its residential RSL. The most effective remedial action was determined to be removal consisting of soil excavation and off-site disposal. This section discusses the applicable or relevant and appropriate requirements for the soil excavation and off-site disposal activities conducted.

3.1 Public Participation

The public participation requirements and activities conducted during the RAW process included:

1. The development of a community profile;
2. Conducting community interviews;
3. Publishing a notice of the availability of the RAW for public review and comments (the public comment period was from November 7, 2014 to December 10, 2014);
4. Making the RAW and other supporting documents available at DTSC's office and in a local information repository;
5. Responding to public comments received on the RAW and California Environmental Quality Act (CEQA) documents;
6. Sending a community update to the site mailing list describing the Building G Area, the proposed RA, and the RAW implementation schedule; and
7. Preparing final documents in electronic format and uploading to DTSC's publicly accessible EnviroStor database and at the MHS Library and Malibu Public Library.

3.2 California Environmental Quality Act Documentation

CEQA requires public agencies to evaluate the potential effects of projects on a full-range of physical environmental conditions, including land, air, water, mineral, flora, fauna, noise, and objects of historical or aesthetic significance. CEQA applies to all discretionary projects proposed to be carried out or approved by California public agencies, unless an exemption applies. DTSC considered the potential impacts of the selected removal action alternative activities upon existing environmental conditions, and concluded that the environmental safeguards and monitoring procedures included in the RAW ensured that impact to the environment would be less than significant. As a result, DTSC found that the project is exempt from further environmental review under CEQA and prepared a Notice of Exemption (NOE), dated November 6, 2014. Upon approval of the RAW, DTSC filed the NOE with the State to comply with the CEQA requirements.

3.3 Hazardous Waste Management

Based on existing soil data and before soil removal activities commenced, Aroclor 1254 was detected at a maximum concentration of 1,500 μg/kg (or 1.5 mg/kg) in one soil sample collected from the Building G Area. Existing soil data obtained from the Building G excavation area was

used to evaluate appropriate off-site disposal of the excavated soil. As a result, Aroclor 1254-impacted soil excavated from the Building G Area was handled as non-hazardous waste.

3.4 South Coast Air Quality Management District

The South Coast Air Quality Management District (AQMD) has two rules that address excavation (Rules 1150 and 1166), and one that addresses fugitive dust (Rule 403). Rule 1150 applies to the excavation of sanitary landfills, and is not relevant to this project. Rule 1166 applies to the excavation of soils containing volatile organic compounds (VOCs) and does not apply to this project, as Aroclor 1254 is not a VOC.

Several elements of Rule 403, such as protocols to mitigate potential fugitive dust emissions, were incorporated into the RAW. Excavation, loading, and transport of impacted soils was performed in compliance with AQMD Rule 403, prevention, reduction, and mitigation measures for fugitive dust emissions. However, notification of AQMD is required only for large operations Therefore, no notification or filing of a Fugitive Dust Emission Control Plan was required due to project size.

3.5 Health and Safety Plan

All contractors were responsible for operating in accordance with the most current requirements of Title 8, California Code of Regulations (CCR), section 5192 (8 CCR 5192) and Title 29, Code of Federal Regulations (CFR), section 1910.120 (29 CFR 1910.120), Standards for Hazardous Waste Operations and Emergency Response. On-site personnel were responsible for operating in accordance with all applicable regulations of the Occupational Safety and Health Administration (OSHA) outlined in 8 CCR General Industry and Construction Safety Orders and 29 CFR 1910 and 29 CFR 1926, Construction Industry Standards, as well as other applicable federal, state and local laws and regulations. All personnel operated in compliance with all California OSHA requirements.

A Health and Safety Plan (HASP) was prepared for the site and was used during the execution of the PEA Work Plan. The HASP was modified to include excavation of the Building G Area. A copy of the revised HASP is included in Appendix B of the RAW.

The provisions of the HASP were mandatory for all MHS personnel and its contractors who are at the site. Subcontractors conducting fieldwork in association with this RAW adopted and abided by the HASP or developed their own safety plans, which, at a minimum, met the requirements of the HASP. All on-site personnel read the HASP and signed a log provided by the site Health and Safety Officer before initiating activities at the Building G Area.

4 Removal Action Work Activities

Soil removal activities were performed during Winter Break, between December 21 and December 30, 2014, by a California-certified contractor under the supervision of a California registered Professional Geologist.

Removal, transportation, and disposal were performed in accordance with applicable federal, state, and local laws, regulations, and ordinances. Soil handling and disposal practices were described in the Transportation Plan (presented in Section 7 of the DTSC-approved RAW and is summarized in Section 4.8.2 below).

Figure 3 illustrates the excavated area, along with a summary of the PEA sampling results. Figure 4 depicts the location and extent of the excavation along with air monitoring stations, temporary fencing, and the locations of the areas where Visqueen was used to cover and protect the surfaces. Figure 5 shows post-excavation incremental soil sampling locations, and Figure 6 depicts the truck route used to transport excavated soil off-site. A photo log documenting each day of removal action activities is included in Appendix A.

4.1 Extent of Area of Excavation

In order to achieve the RAOs listed in Section 1.2, soil containing the highest Aroclor 1254 concentrations was excavated. Therefore, the excavation encompassed the locations of borings MH-SB-76 and MH-SB-118 where Aroclor 1254 was detected in surface soils at concentrations of 1,500 µg/kg and 1,100 µg/kg, respectively. The excavation extended north to include MH-SB-120 where Aroclor 1254 was detected in surface soil at a concentration of 430 µg/kg, and south to the edge of concrete ramp, approximately 20 feet south of boring MH-SB-76. The excavation was extended east to include soil step-out sampling locations MHS-SB-119, MH-SB-121, and MH-SB-124 where Aroclor 1254 was detected at concentrations of 340 µg/kg, 140 µg/kg, and 72 µg/kg, respectively. The excavation extended as far west as the edge of the concrete walkway. Based on the results of existing and step-out sampling locations collected from 1.5 feet bgs, the excavation was extended vertically to 1.5 feet. Figures 3 and 4 and Photos 12 and 14 illustrate the lateral extent of the excavation in the Building G Area. The final excavation dimensions were approximately 38 feet long by 7 feet wide and 1.5 feet deep.

4.2 Pre-Excavation Activities and Security Measures

Prior to equipment mobilization, site preparation activities were performed, including site inspections, demarcation of excavated areas, and placing of Visqueen cover over areas adjacent to the excavation and along soil transport routes (see Photos 1, 2, and 3).

4.2.1 Delineation of Excavation Area

The areal limits of the excavation were delineated by ENVIRON before commencement of soil removal activities. The area to be excavated was marked in the field by ENVIRON using stakes and high visibility paint. The original proposed length of the excavation in the north-south direction was measured from Google Earth at approximately 45 feet; however, the distance measured in the field from the concrete walkway to borings MH-SB-120 and MH-SB-121 was 38 feet, 7 feet shorter than the original proposed length in the RAW. DTSC's Geologist was

present during excavation activities, and concurred with ENVIRON's measurements of the total length of the excavation.

4.2.2 Utility Clearance

Prior to commencement of excavation, ENVIRON notified Underground Service Alert (USA) of its intent to conduct excavation, in accordance with California State law (Assembly Bill AB 73). ENVIRON also worked with the District to identify any buried utilities, including buried irrigation pipe lines. ENVIRON did not contact a private utility locator as the Building G Area has been cleared for underground utilities during the implementation of the PEA Work Plan.

4.2.3 Security Measures

Fencing was erected prior to the commencement of the excavation to isolate the exclusion zone and to ensure that all work areas were secure and safe (See Figure 4). Persons requesting site access were required to have pre-access authorization and demonstrate a valid purpose for access. If access to work areas was planned, visitors were briefed regarding the site-specific HASP (see Appendix B of the RAW).

4.2.4 Contaminant Control

Measures were implemented during soil excavation activities to prevent potential air transport of excavated soil and dust to the adjacent areas. The nearest occupied and/or residential areas in the vicinity of the area addressed by the RAW are located uphill and at least a mile away from the area to be excavated. Excavation took place during Winter Break, when school was not in session, to minimize exposure to faculty and students. Based on these factors, and because air monitoring procedures (see Section 4.3) and measures to reduce dust emissions (see Section 4.4) were implemented during excavation activities, particulate migration of PCBs outside the excavation area was not expected. Additionally, On December 21, 2014, prior to the commencement of excavation activities and prior to earth moving equipment mobilization, areas and surface directly adjacent to the marked excavation boundaries were covered with Visqueen. These areas are depicted on Figure 4 and include the grassy area and hillside that surround the excavation, the concrete walkway west of the excavation, areas traversed by earth moving equipment (the concrete walkway east of Building G and directly adjacent to the proposed excavation area, the concrete area north of Building G, and the asphalt and a portion of the parking lot where the roll off bins were stored (Photos 1, 2, 3, and 12). Additionally, a portion of the hillside north of Building G, the lower half of the wall in proximity to the westernmost perimeter, and the grass and picnic areas in proximity to the roll off bins and excavation area were covered with Visqueen to reduce the potential deposition of dust and soil particulates during soil loading procedures (Photos 3 and 13).

Additionally, four air monitoring stations and one weather station were placed around the perimeters of the exclusion zone as depicted on Figure 4. The air monitoring and weather stations were assembled, calibrated, and checked prior to commencement of the excavation activities to minimize disruptions and down time.

4.2.5 Excavation Activities

Excavation activities were conducted between December 22 and 30, 2014 by trained and equipped hazardous waste workers from Innovative Construction Solutions (ICS) of Santa Ana,

California. Prior to the commencement of excavation activities, the four air monitoring and one weather station were turned on. One additional hand held air monitoring unit also was set up in the work zone, directly adjacent to the excavation.

Soil was removed from the excavation area using a mini-excavator (Photo 1). Excavated soil was transferred directly from the bucket of the mini-excavator into a Super Sack® that was anchored on a forklift, directly adjacent and/or over the excavation during the transfer (Photos 9 and 10). Super Sacks® were used as an alternative to direct-soil loading into the roll-off bins from a bobcat, as originally proposed in the RAW, due to space limitations and to provide better containment of the excavated soil. DTSC's Geologist approved this modification to the RAW. After the soil was loaded into the Super Sack®, the Super Sack® was sealed with tape, transported via forklift from the excavation area, north of and around Building G, and to the roll-off bin staging area by the Gymnasium, where it was temporarily staged on Visqueen pending placement into roll off bins (Photo 11). The Super Sacks® were directly loaded into the roll-off bin, after the bins were delivered to the site.

During excavation activities, dust generation was controlled through wetting the soil and air monitoring was conducted at locations depicted on Figure 4 to confirm particulate concentrations were acceptable. Air monitoring stations were manually checked and logged in the field at five minute intervals (see Section 4.3 for more detail). Excavation was not conducted during times of high wind conditions (e.g., wind speed in excess of 25 miles per hour). Excavation activities were not conducted on December 26, 2014, due to local high wind conditions. At the end of each working day, temporary fencing was erected around areas where equipment was stored (Photo 6) and around the excavation area (Photo 15).

Following the completion of excavation activities, roll-off bins were loaded on to ICS's vehicles and taken off- site for disposal to a Class III landfill at the Waste Connections - Chiquita Canyon Landfill. Upon completion of all excavation activities, the Visqueen sheets were taken down and removed from the Building G Area (Photo 22).

Removal of PCB-impacted soils in the Building G Area resulted in an excavation approximately 38 feet long, 7 feet wide, and 1.5 feet deep (see Figures 4 and 5). Approximately 22.5 tons of soil were removed from the site and subsequently disposed of as further discussed in Section 4.8.

4.2.6 Soil Staging and Storage Operations

Excavated soil was stored on-site in roll-off bins equipped with secured lockable covers, pending off-site transportation and disposal. Roll-off bins were staged on Visqueen to protect the ground surface. Excavated soil handling is further discussed in Section 4.8. In addition, the morning of the December 22, 2014, at the direction of the DTSC's Geologist, filled Super Sacks® initially were staged on Visqueen north of Building G, pending delivery of roll-off bins (Photo 11); DTSC's Geologist concurred with this modification to the RAW. Filled Super Sacks® were placed into the roll-off bins after delivery.

4.3 Air and Meteorological Monitoring

Air and meteorological monitoring were conducted to achieve to following goals:

- Identify and measure the particulates generated during the soil removal and decontamination activities to assign the appropriate personal protective equipment and safety systems specified for those activities.
- Provide feedback to site operations personnel regarding potential hazards from exposure to hazardous air contaminants generated through excavation activities.
- Identify and measure particulates at points outside of the soil removal and exclusion zones.

Air monitoring was conducted during work activities to measure potential exposure of sensitive receptors to site chemical constituents, as a result of removal activities.

4.3.1 Air Monitoring

Air monitoring was performed during excavation activities in which impacted or potentially impacted soils were disturbed or handled, and included:

- Monitoring dust levels around the perimeter of the Exclusion Zone (fenced area) as depicted on Figure 4 (Photos 3 through 6). ENVIRON also monitored dust levels within the work zone using a hand-held air monitor. As stated in the RAW, ENVIRON had the authority to stop work in the event that on-site activities generated dust levels that exceed the site action levels (2.5 milligrams per cubic meter [mg/m^3]) or community (0.05 mg/m^3), however such levels were not encountered during the excavation. ENVIRON monitored on-site meteorological instrumentation and coordinated with off-site meteorological professionals to identify conditions that required cessation of work, (e.g., winds in excess of 25 miles per hour [mph], which is defined as high wind condition by the AQMD). Such conditions were identified on December 26, 2014; hence, no excavation was conducted on that day.
- Assuring that all real-time aerosol monitors and hand-held industrial hygiene air sampling equipment and media were properly calibrated and in good working condition. Real-time, data-logging aerosol monitors (MIE DataRAM 4000) were used to measure dust levels around the fenced perimeter of the Building G Area. These monitors measured particles with an aerodynamic diameter of 0.1 to 10 µm (micrometer). Real-time information was posted daily, and discussed with site workers. Hand held air monitors (Thermo Personal Data RAM 1500) were used in the work zone to monitor potential worker exposure during excavation activities.
- Coordinating general site safety activities including all daily hazard communication, safety practices, and procedure briefings.
- Oversight of personal decontamination practices.
- Performing general site safety leadership, support, and recordkeeping activities.
- Developing air monitoring strategy and methodologies.
- Implementing the overall strategy for controlling both on-site and off-site exposures to control the respirable dust levels around the fenced perimeter of the Building G Area. Four MIE DataRAM 4000 monitors were placed along the fence lines as depicted on Figure 4.

Air monitoring was conducted over an 8 -10 hour period each day during RA activities. The air-monitoring professional manually checked and logged the worker exposure monitor every 15 minutes during excavation activities.

4.3.2 Meteorological Monitoring

On-site ambient weather conditions (wind speed and direction, and relative humidity) were monitored by the following methods: an on-site meteorological station as shown in Photo 5, real-time weather websites, and the National Weather Service. On-site meteorological monitoring was performed during excavation activities. Meteorological monitoring resulted in the cessation of work one time during the RA process, on December 26, 2014. Wind gusts were measured at speeds in excess of 40 mph, which is over the 25 mph high wind condition as defined by AQMD, using the meteorological station at the site. ENVIRON personnel confirmed winds were in excess of 25 mph by checking local weather stations and real-time weather websites prior to postponing work.

4.4 Dust Control

ENVIRON implemented applicable procedures to control the airborne dusts generated by soil removal activities. Employee and community exposures to PCBs were controlled by minimizing exposure to Particulate Matter Of Size Less Than Or Equal To 10 Micrometers (PM_{10}). Therefore, it was not necessary to collect and analyze air samples. Such procedures included the following:

- Dust levels were monitored at the locations shown on Figure 4 (see Photos 3 through 6). The PM_{10} data from the fence line monitors were downloaded at the end of each work day, and were analyzed as differential upwind/downwind 5-hour rolling average concentrations. The results were compared to 50 micrograms per cubic meter ($\mu g/m^3$) and were used to gauge site activities and to potentially modify the on-site PM_{10} action level (AL) if necessary. Generation of dust during the removal operations was minimized as necessary with the use of water as a dust suppressant. The water was dispensed from a hose connected to a spigot outside of the ceramics room (Building G). The excavation contractor controlled dust generation by spraying water prior to daily work activities and during excavation activities (as necessary to maintain concentrations below ALs). Watering equipment was continuously available to provide proper dust control.
- Real-time dust monitors were calibrated daily and were set to log dust levels over 5-minute periods.

Dust monitor data are provided in Appendix B; the 50 $\mu g/m^3$ criterion was not exceeded.

4.5 Department of Toxic Substances Control Oversight

DTSC provided oversight on December 22 and 23, 2014 during soil excavation activities in the Building G Area. DTSC's Geologist oversaw excavation activities and DTSC's Industrial Hygienist performed air monitoring by setting up hand held dust monitors (Thermo Personal Data RAM or similar) on tripods adjacent to ENVIRON's air monitoring stations for concurrent air monitoring to confirm ENVIRON's air monitoring data.

4.6 Post-Excavation Incremental Sampling

Post-excavation incremental soil sampling was conducted using the DTSC-approved incremental sampling methodology that was previously used during implementation of the PEA. Two Decision Units were identified for the post-excavation soil samples: 1) DU-1 is comprised of the bottom, or base, of the excavation and 2) DU-2 is comprised of the sidewalls (northern, eastern, and part of the southern wall where soil is exposed) of the excavation. The base (DU-1) was divided into 26 grids that measured approximately 3.5 feet long by 2.9 feet wide, and the sidewalls were divided into 25 grids of varying sizes (see Figure 5): 22 grids along the eastern sidewall, 2 grids along the northern sidewall, and one grid along the southern sidewall. The number of grids within DU-1 and DU-2 were modified from those described in the RAW based on field measurements of the actual excavation dimensions (see Section 4.2.1). DTSC's Geologist approved the modifications to reduce the number of sampling grids.

Following the same procedures used during implementation of the PEA Work Plan, three incremental soil sampling borings (i.e., A, B, and C) were randomly selected within each grid in a given DU for a total of 78 borings in DU-1 and 75 borings in DU-2. Soil boring locations were marked in the field with flags prior to commencement of the incremental soil sampling (Photos 15 and 17). At each boring location, one soil sample was collected from the surface, placed in laboratory supplied glassware, and stored in an ice-filled cooler for transport to Test America laboratory, a California state-certified laboratory under chain-of-custody procedures. Per DTSC's request, a disposable scoop with a flat leading edge was used to collect each sample (see Photo 16). For each DU, soil sample increments were combined at the laboratory (i.e., into A, B, and C increments) and analyzed for PCBs, using USEPA Method 8082. Due to a miscommunication with the laboratory, a duplicate incremental soil sample was not analyzed.

Validated post-excavation incremental soil sampling results are presented in Table 1. In DU-1, Aroclor 1254 was detected at concentrations ranging from 140 μg/kg to 600 μg/kg. In DU-2, Aroclor 1254 was detected at concentrations ranging from 92 μg/kg to 190 μg/kg. Laboratory analytical reports are included in Appendix C. Data validation, performed at Level III by an independent third party, Laboratory Data Consultants, is included in Appendix D. A laboratory duplicate incremental soil sample was not analyzed.

4.7 Decontamination

Each piece of equipment used for excavation had a clean-out bucket or continuous edge across the cutting face of its bucket; no excavation was conducted with equipment utilizing teeth across the cutting edge of its bucket.

Entry to the excavation area was fenced off and access was limited to avoid unnecessary exposure and limit the potential for cross contamination. Equipment that came into direct contact with potentially PCB-impacted soil or water was decontaminated to assure the quality of samples collected and/or to avoid cross contamination. Decontamination was conducted over Visqueen prior to and after each designated use of a piece of equipment, using the following procedures:

- Non-phosphate detergent and tap water wash, using a brush if necessary.
- Tap-water rinse.

- Initial deionized/distilled water rinse.
- Final deionized/distilled water rinse.

Disposable equipment for one time use was not decontaminated, but was packaged for appropriate off-site disposal.

Trucks did not come into direct contact with potentially impacted soil as the roll-off bins were staged outside the excavation area of the Exclusion Zone (Photo 13). Trucks were visually inspected before leaving the Exclusion Zone and dirt, if any, adhering to the exterior surfaces was brushed off and collected on Visqueen. The storage bins were inspected to ensure the loads were properly covered and secured. Excavation equipment surfaces were also brushed off over Visqueen prior to removal from the exclusion zone.

Cleaned bulky equipment was stored on Visqueen in away from the excavation area. Cleaned smaller equipment was stored in plastic bags. Materials to be stored for more than a few hours were also covered.

4.8 Management of Excavated Soil

4.8.1 Excavated Soil Profiling

Table 3 of the California Code of Regulations (CCR) Title 22, Division 4.5, Chapter 11, Article 3, prohibits the disposal of any waste containing PCBs in excess of 50 mg/kg in California to other than a Class I disposal facility. In addition, the state Soluble Threshold Limit Concentration limit for hazardous waste classification is 5 mg/l for soluble PCBs. Based on the analytical results gathered during the PEA, the soil excavated from the Building G Area was determined to be non-hazardous waste, and was transported to a Class III landfill, Waste Connections – Chiquita Canyon Landfill, in Castaic, California for disposal. Non-hazardous waste manifests are included in Appendix E.

4.8.2 Transportation Plan for Off-site Disposal

Three trucks were used to transport the three roll-off bins containing excavated soil from the site to the off-site disposal facility.

As stated in the RAW and depicted on Figure 6, trucks entered the site from Morning View Drive and traveled along the gated alley way that separates MHS from JCES to the parking lot north of Building K. The trucks then stopped at the westernmost perimeter fenced area where the roll-off bins were staged so the bins could be loaded onto the trucks. Trucks maintained slow speeds (i.e. less than 5 miles per hour) for safety and dust control.

Prior to exiting the loading/fenced area, the trucks were swept to remove any soil or dust. Prior to off-site transport, the trucks were inspected to ensure that the roll-off bins were securely covered and cleaned of excess soil, properly placarded, and that the non-hazardous soil manifest had been completed and signed by the generator and the transporter. Once loaded, the trucks left the loading fenced area and exited the site via the entry route, back to Morning View Drive, to Pacific Coast Highway.

4.9 Backfill and Site Restoration

The excavated area was backfilled using DTSC-approved clean fill soil and topsoil and restored to its original condition. The source of the imported fill material was sampled prior to the start of the field work in accordance with DTSC's guidelines entitled "*Information Advisory, Clean Imported Fill Material*," dated October 2001. Sampling results were submitted to the DTSC and were approved in an email dated December 17, 2014. After placement, the imported clean fill soil and topsoil were compacted using a vibrating plate. Sod was placed outside the planters to replace the grass that was removed. Bushes were planted inside the planters to replace those removed during the excavation (Photos 20 and 21).

5 Conclusion

Approximately 15 cy^3 of PCB-impacted soil was excavated from the Building G Area during the RA, in accordance with the DTSC-approved RAW. The planar footprint of the excavation encompassed the highest detected concentrations of Aroclor 1254; soil samples MH-SB-76 and MH-SB-118, as well as locations MH-SB-119 through MH-SB-121 and MH-SB-124. Approximately 15 yd^3 of soil was excavated, determined to be non-hazardous, and transported off site for disposal at the Chiquita Landfill, located in Castaic, California.

Excavation of the highest detected concentrations of Aroclor 1254 (soil samples MH-SB-76 and MH-SB-118), lowered the residential human health based risk associated with the PCB-impacted soil in the Building G Area to the target risk of $1x10^{-6}$, providing a site that is suitable for unrestricted regulatory closure. Based on the results of the excavation activities performed in the Building G Area, as described herein, the District respectfully requests that DTSC issue a "No Further Action" for the PCBs in shallow soil in the Building G Area.

6 References

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Table

Table 1. Summary of Post-Excavation Incremental Soil Sampling Results
Building G Area, Malibu High School
30215 Morning View Drive
Malibu, California

Sample ID	Date	Depth (feet bgs)	Aroclor 1254 µg/kg
Decision Unit 1 - Base of Excavation			
IS-BASE-A	12/24/2014	1.5	140
IS-BASE-B	12/24/2014	1.5	600
IS-BASE-C	12/24/2014	1.5	230
Decision Unit 2 - Sidewalls of Excavation			
IS-SIDEWALL-A	12/24/2014	0	120
IS-SIDEWALL-B	12/24/2014	0	190
IS-SIDEWALL-C	12/24/2014	0	92

Notes
µg/kg - micrograms per kilogram
bgs - below ground surface

Figures

SOURCE:
National Geographic World Map
ESRI ArcGIS Online
© 2010 National Geographic Society
Reference Data: National Geographic, Esri, DeLorme, HERE, iPC, NRCAN, METI

Map Created with ESRI ArcMap and National Geographic TOPO!™ ©2001 National Geographic Holdings [www.topo.com]

0 0.5 1 MILES

2,500 0 2,500 5,000 7,500 10,000 FEET

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
1:40,000

Path: Z:\01_Projects\Malibu High School\03_GIS\Removal Action Completion Report - 2015-02\Figure 1 - Site Vicinity Map - 2015-02-02.mxd

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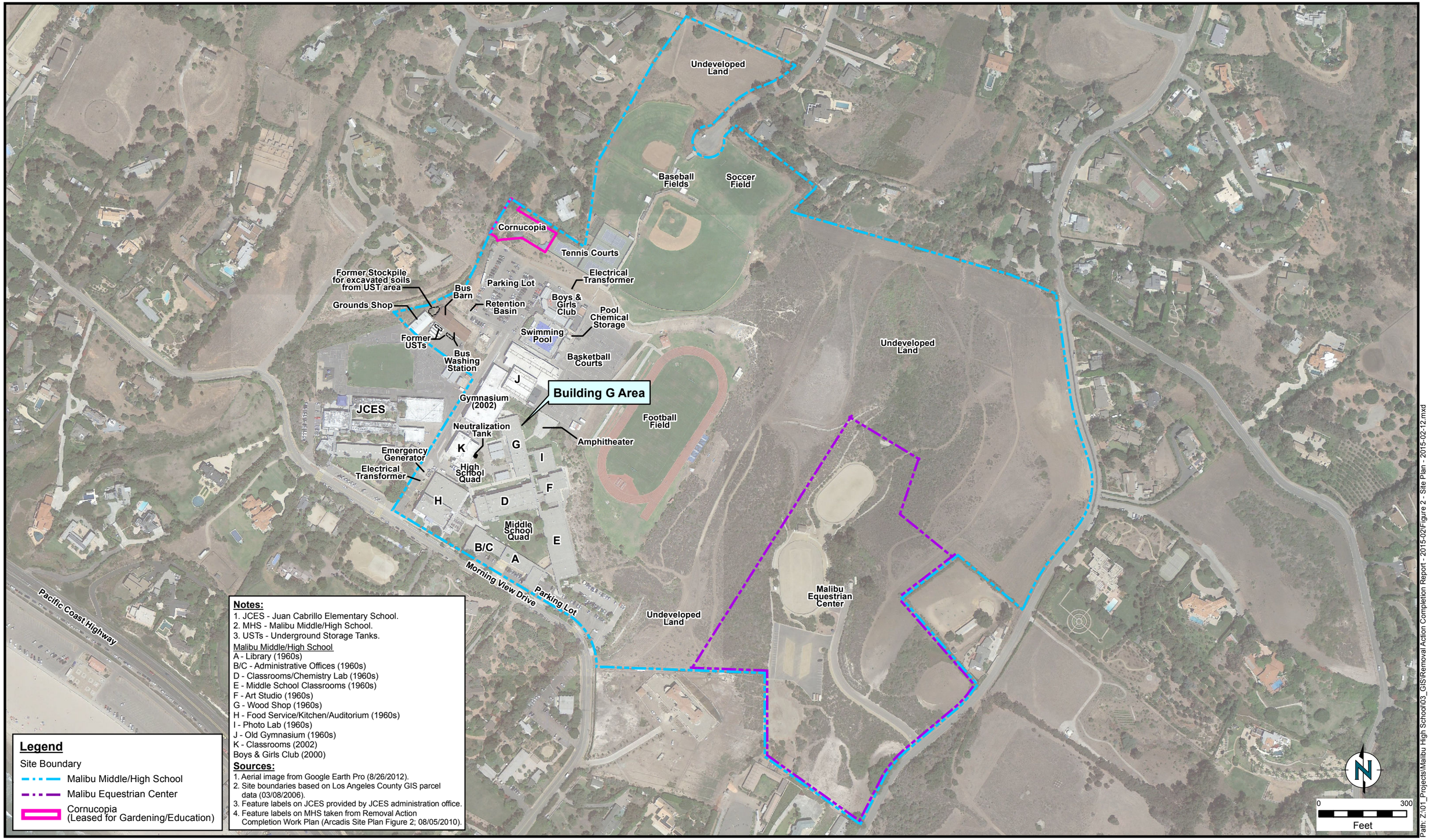
Site Vicinity Map

Malibu High School
30215 Morning View Drive
Malibu, California

Figure
1

DRAFTED BY: SShin | Date: 1/27/2015 | PROJECT: 04-33980M



Notes:
1. JCES - Juan Cabrillo Elementary School.
2. MHS - Malibu Middle/High School.
3. USTs - Underground Storage Tanks.

Malibu Middle/High School
A - Library (1960s)
B/C - Administrative Offices (1960s)
D - Classrooms/Chemistry Lab (1960s)
E - Middle School Classrooms (1960s)
F - Art Studio (1960s)
G - Wood Shop (1960s)
H - Food Service/Kitchen/Auditorium (1960s)
I - Photo Lab (1960s)
J - Old Gymnasium (1960s)
K - Classrooms (2002)
Boys & Girls Club (2000)

Sources:
1. Aerial image from Google Earth Pro (8/26/2012).
2. Site boundaries based on Los Angeles County GIS parcel data (03/08/2006).
3. Feature labels on JCES provided by JCES administration office.
4. Feature labels on MHS taken from Removal Action Completion Work Plan (Arcadis Site Plan Figure 2; 08/05/2010).

Legend

Site Boundary
- Malibu Middle/High School
- Malibu Equestrian Center
- Cornucopia (Leased for Gardening/Education)

Path: Z:\01_Projects\Malibu High School\03_GIS\Removal Action Completion Report - 2015-02\Figure 2 - Site Plan - 2015-02-12.mxd

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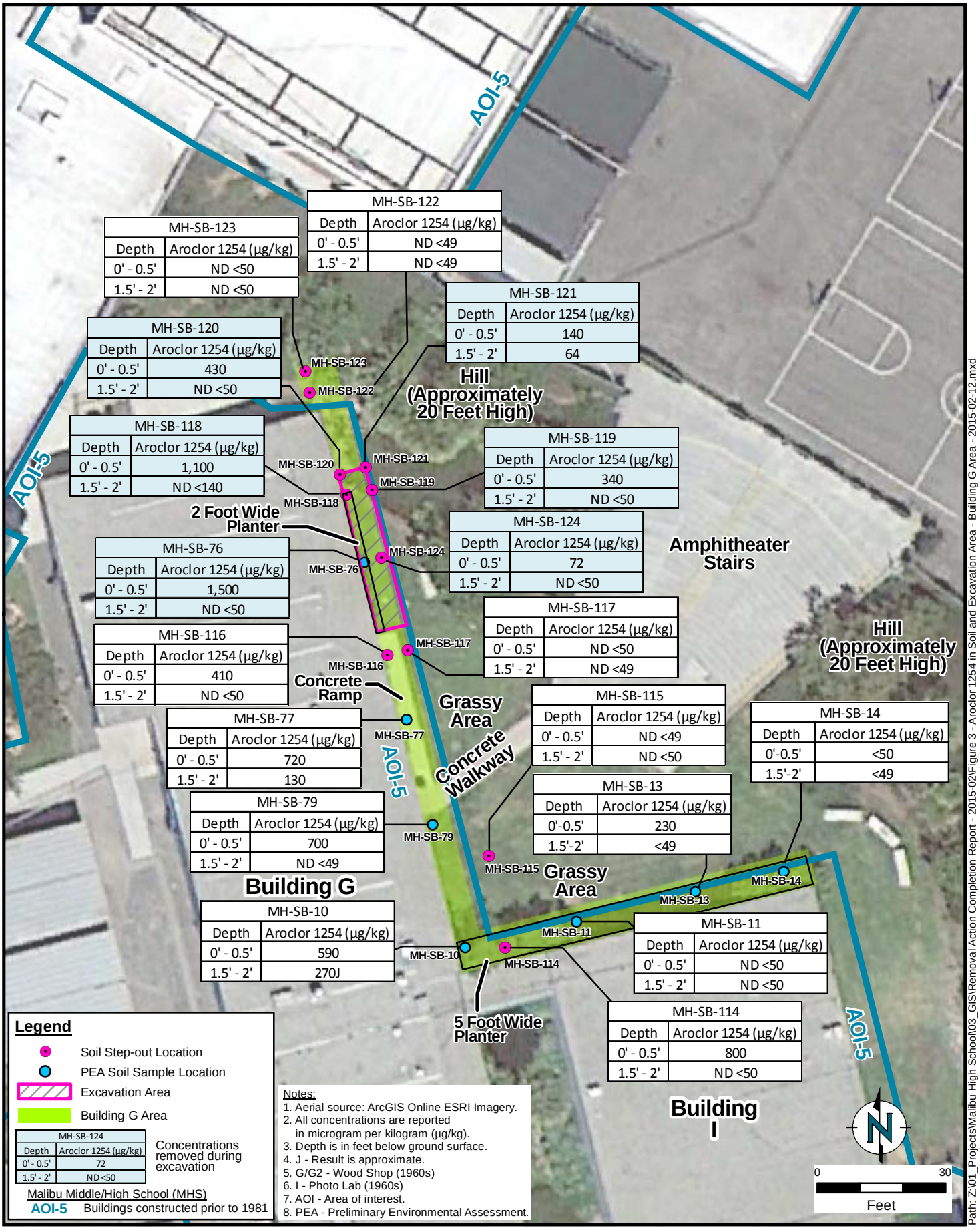
DRAFTED BY: SShin | Date: 2/12/2015

Site Plan

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 2

PROJECT: 04-33980M



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Aroclor 1254 in Soil and Excavation Area Building G Area

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 3

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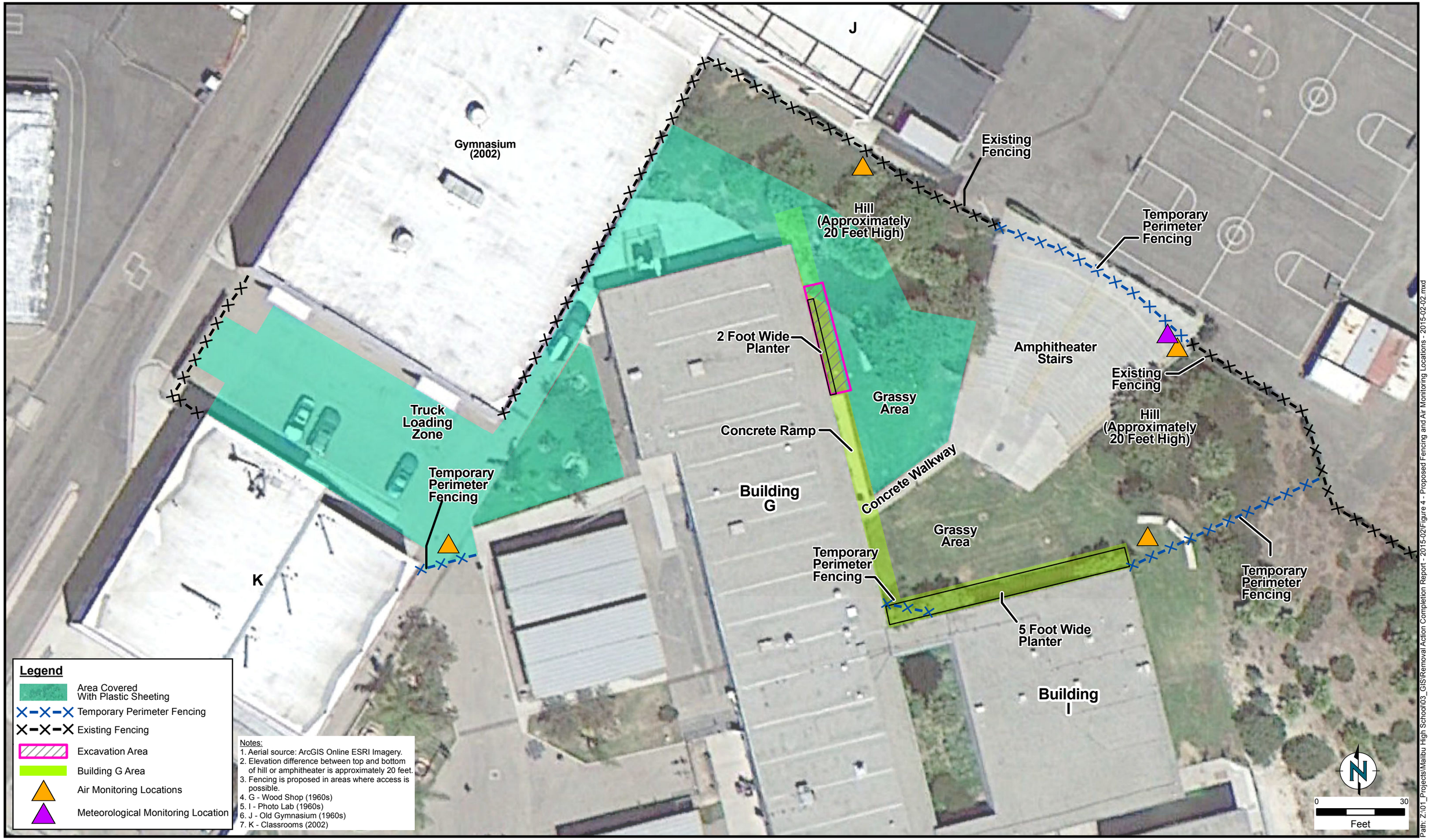

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DRAFTED BY: SShin | Date: 2/2/2015

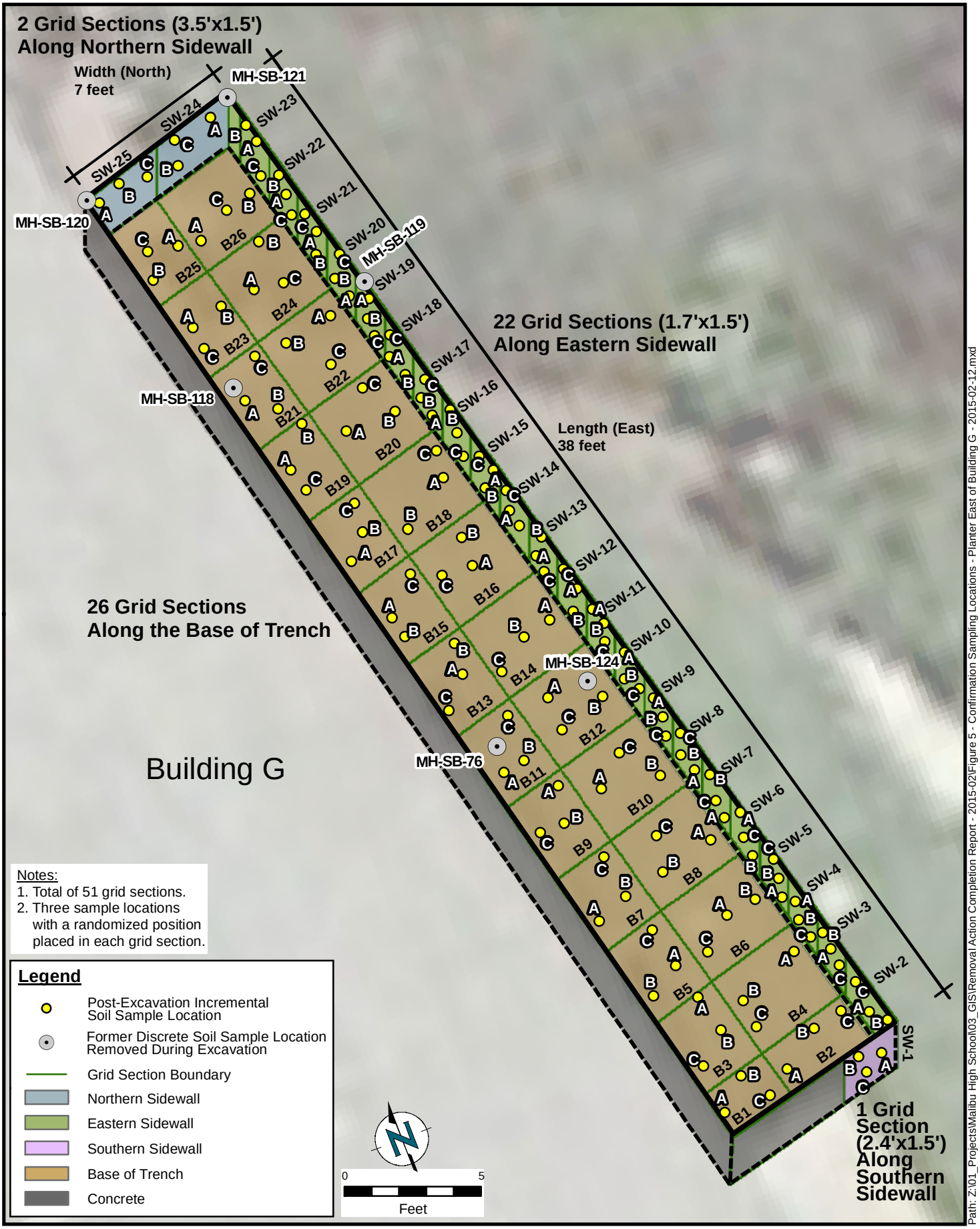
Fencing and Air Monitoring Locations
Building G Area

Malibu High School
30215 Morning View Drive, Malibu, California

Figure
4

PROJECT: 04-33980M

Path: Z:\01_Projects\Malibu High School\03_GIS\Removal Action Completion Report - 2015-02\Figure 4 - Proposed Fencing and Air Monitoring Locations - 2015-02-02.mxd



Path: Z:\01_Projects\Malibu High School\03_GIS\Removal Action Completion Report - 2015-02\Figure 5 - Confirmation Sampling Locations - Planter East of Building G - 2015-02-12.mxd

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DRAFTED BY: SShin | Date: 3/31/2015

Post-Excavation Incremental Soil Sampling Locations Building G Area

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 5

PROJECT: 04-33980M

Baseball Fields
Soccer Field
Cornucopia
Tennis Courts
Former Stockpile for excavated soils from UST area
Parking Lot
Electrical Transformer
Bus Barn
Grounds Shop
Retention Basin
Boys & Girls Club
Pool Chemical Storage
Swimming Pool
Former USTs
Bus Washing Station
Basketball Courts
J
Gymnasium (2002)
JCES
Truck Loading Zone
Football Field
Amphitheater
G
K
Emergency Generator
Neutralization Tank
I
Electrical Transformer
High School Quad
F
H
D
Middle School Quad
E
B/C
A
Truck Route Entrance onto MHS Campus from Morning View Drive
Morning View Drive
Parking Lot
Undeveloped Land
Google Street View
Pacific Coast Highway
Morning View Drive
Truck Route Entrance onto Morning View Drive from Pacific Coast Highway

Notes:
1. JCES - Juan Cabrillo Elementary School.
2. MHS - Malibu Middle/High School.
3. USTs - Underground Storage Tanks.

Malibu Middle/High School
A - Library (1960s)
B/C - Administrative Offices (1960s)
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E - Middle School Classrooms (1960s)
F - Art Studio (1960s)
G - Wood Shop (1960s)
H - Food Service/Kitchen/Auditorium (1960s)
I - Photo Lab (1960s)
J - Old Gymnasium (1960s)
K - Classrooms (2002)
Boys & Girls Club (2000)

Sources:
1. Aerial image from Google Earth Pro (8/26/2012).
2. Site boundaries based on Los Angeles County GIS parcel data (03/08/2006).
3. Feature labels on JCES provided by JCES administration office.
4. Feature labels on MHS taken from Removal Action Completion Work Plan (Arcadis Site Plan Figure 2; 08/05/2010).

Legend
- Truck Route
- Site Boundary
  - Malibu Middle/High School
  - Malibu Equestrian Center
  - Cornucopia (Leased for Gardening/Education)

N

0 200
Feet

Path: Z:\01_Projects\Malibu High School\03_GIS\Removal Action Completion Report - 2015-02\Figure 6 - Truck Route - 2015-02-02.mxd

ENVIRON

Truck Route

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 6

DRAFTED BY: SShin | Date: 2/2/2015 | PROJECT: 04-33980M

Appendix A

Photo Log

Photo 1: Pre-excavation: Plastic laid down along soil transport route, east of Gymnasium.

Photo 2: Pre- excavation: Plastic laid down along soil transport route, north of Building G.

Photo 3: Pre-excavation: Setting up air monitoring station (ENVIRON), looking east toward Building G.

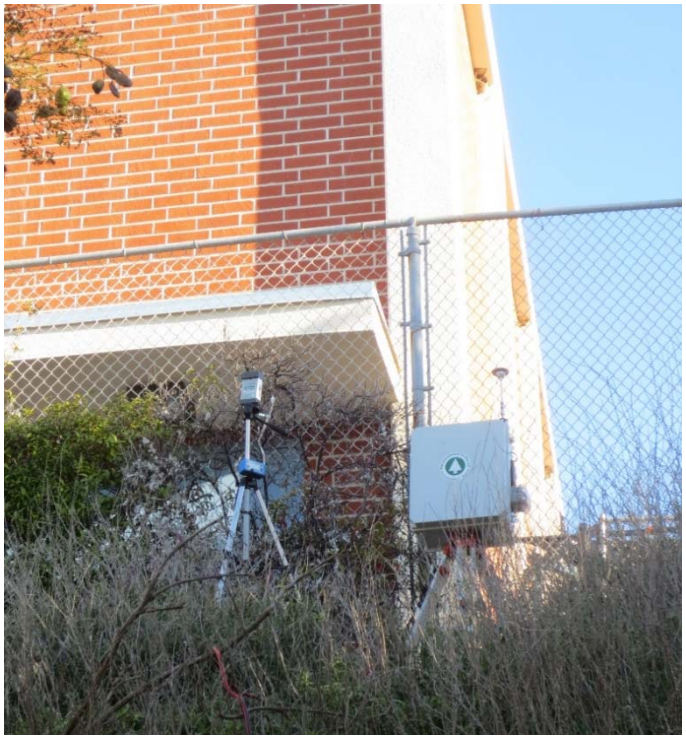

Photo 4: Pre-excavation: Setting up air monitoring stations (DTSC left, ENVIRON right) at top of hill by Building J.

Photo 5: Pre-excavation: setting up air monitoring stations (DTSC left, ENVIRON center) and meteorological station (ENVIRON, right) at top of Amphitheatre steps.

Photo 6: Pre-excavation: Setting up air monitoring stations (DTSC left, ENVIRON right) in front of temporary fencing by Building I.

Photo 7: First day of excavation: Removing grass and surficial soil with mini-excavator, looking north.

Photo 8: First day of excavation: Removing shrubbery adjacent to walkway; irrigation lines (blue, gray) exposed.

Photo 9: First day of excavation: Empty Super Sack® loaded on forklift, looking south.

Photo 10: First day of excavation: Loading excavated soil into Super Sack®; lockers covered in plastic in background.

Photo 11: First day of excavation: Temporary Super Sack® staging location north of Building G; plastic sheeting on ground, walls, and hill.

Photo 12: First day of excavation: Southern end of excavation down to total depth of 1.5 feet; blue irrigation line supported by sandbags.

Photo 13: Second day of excavation: Roll-off bins staged on plastic by Gymnasium, looking northwest.

Photo 14: Second day of excavation: Completing northern half of excavation while southern half is flagged for incremental sampling.

Photo 15: Completed excavation with flagged post-excavation sampling locations, temporary fencing, and plastic; looking north.

Photo 16: Sample jars and disposable sampler for post-excavation incremental soil sampling.

Photo 17: Collecting southern sidewall post-excavation incremental soil sample.

Photo 18: Looking east at Building G: Staging area for Super Sacks of clean imported soil for backfill (to the right) and stockpile of imported topsoil covered in plastic (to the left). Note that the fill soils were approved by DTSC.

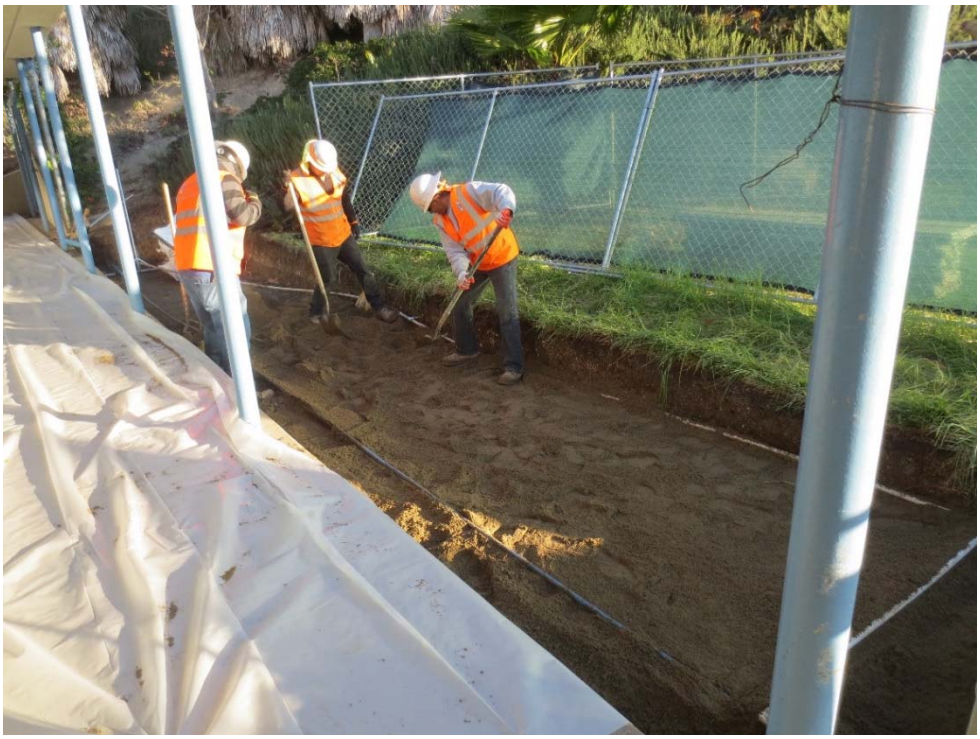

Photo 19: Distributing clean imported backfill soil throughout excavation, looking north-northeast.

Photo 20: Post Excavation: Looking north - Excavation area restored to previous state with sod and plants.

Photo 21: Post excavation: Looking northwest - Excavation area backfilled and restored.

Photo 22: Post excavation: Looking southwest: Soil transport route adjacent to Gymnasium after excavation activities.

Appendix B

Air and Meteorological Monitoring Data

Air and Meteorological Monitoring
Malibu High School, Building G Area
30215 Morning View Drive
Malibu, California

Time	Respirable Dust TWA (µg/m³)																		Meteorological Data			
	MIE DR-4000 West, by Building K	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	MIE DR-4000 North, Hill by Building J	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	MIE DR-4000 East, by Amphitheatre	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	MIE DR-4000 Southeast, by Building I	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	pDR-1500 A	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	pDR-1500 B	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	Wind Speed (mph)	Wind <25 mph (Yes/No)	Wind Direction	Relative Humidity (%)[1]
December 22, 2014 (Day 1 of Excavation)																						
0800	11.2	Y	Y	10	Y	Y	14.2	Y	Y	9.9	Y	Y	19.3	Y	Y	13.7	Y	Y	0	Y	NE	86
0830	18	Y	Y	14.6	Y	Y	21.4	Y	Y	21.2	Y	Y	20.7	Y	Y	18.4	Y	Y	0	Y	NE/E	77
0845	18.1	Y	Y	14.1	Y	Y	19.9	Y	Y	19.4	Y	Y	18	Y	Y	18.2	Y	Y	0	Y	E	75
0900	19	Y	Y	14.3	Y	Y	20.2	Y	Y	19.3	Y	Y	18.9	Y	Y	18.9	Y	Y	0	Y	E	77
0915	20	Y	Y	15.1	Y	Y	21.4	Y	Y	20.2	Y	Y	20	Y	Y	20.1	Y	Y	0	Y	E	80
0930	20.9	Y	Y	15.5	Y	Y	20.8	Y	Y	20.6	Y	Y	20.4	Y	Y	20.9	Y	Y	0	Y	E/SE	79
0945	21.8	Y	Y	16.5	Y	Y	22.9	Y	Y	21.6	Y	Y	22.2	Y	Y	22.2	Y	Y	2	Y	E/SE	78
1000	23	Y	Y	17.3	Y	Y	29	Y	Y	22.4	Y	Y	23.1	Y	Y	23.1	Y	Y	0	Y	E	76
1015	23.8	Y	Y	18.2	Y	Y	25.1	Y	Y	23.2	Y	Y	24.7	Y	Y	29	Y	Y	2	Y	S	76
1030	25.6	Y	Y	19.5	Y	Y	28.9	Y	Y	24.7	Y	Y	26.5	Y	Y	25.8	Y	Y	0	Y	S	75
1045	27.5	Y	Y	21.4	Y	Y	29.6	Y	Y	26.9	Y	Y	29	Y	Y	27.6	Y	Y	3	Y	E/SE	74
1100	29.7	Y	Y	22.8	Y	Y	31.4	Y	Y	28.6	Y	Y	30.6	Y	Y	29.3	Y	Y	1	Y	S	75
1115	30.7	Y	Y	23.6	Y	Y	32.5	Y	Y	29.5	Y	Y	31.4	Y	Y	30.3	Y	Y	2	Y	S	74
1130	31.7	Y	Y	24.6	Y	Y	33.9	Y	Y	30.7	Y	Y	32.9	Y	Y	31.1	Y	Y	2	Y	S	75
1230	34.1	Y	Y	26.9	Y	Y	36.9	Y	Y	33.7	Y	Y	34.4	Y	Y	32.6	Y	Y	1	Y	S	80
1245	36.1	Y	Y	27.9	Y	Y	39.1	Y	Y	35	Y	Y	35.3	Y	Y	33.7	Y	Y	2	Y	S	81
1300	36.1	Y	Y	28.7	Y	Y	39.1	Y	Y	36.2	Y	Y	35.9	Y	Y	34.5	Y	Y	0	Y	S/SE	79
1315	36.5	Y	Y	28.9	Y	Y	39.4	Y	Y	36.6	Y	Y	36	Y	Y	34.6	Y	Y	0	Y	S/SE	74
1330	36.5	Y	Y	29.1	Y	Y	39.5	Y	Y	36.8	Y	Y	36.2	Y	Y	34.7	Y	Y	1	Y	S/SE	76
1345	37.2	Y	Y	29.8	Y	Y	40.2	Y	Y	37.6	Y	Y	36.8	Y	Y	35	Y	Y	2	Y	S	82
1400	37.7	Y	Y	30.1	Y	Y	40.6	Y	Y	38.2	Y	Y	37	Y	Y	35.3	Y	Y	0	Y	S	81
1415	37.7	Y	Y	30	Y	Y	40.5	Y	Y	38.2	Y	Y	36.9	Y	Y	35.2	Y	Y	2	Y	S	74
1430	37.6	Y	Y	30	Y	Y	40.4	Y	Y	38.1	Y	Y	36.9	Y	Y	35.1	Y	Y	3	Y	S	77
1445	37.5	Y	Y	29.9	Y	Y	40.2	Y	Y	38	Y	Y	36.8	Y	Y	34.8	Y	Y	0	Y	S	76
1500	37.3	Y	Y	29.8	Y	Y	40	Y	Y	37.9	Y	Y	36.5	Y	Y	34.5	Y	Y	0	Y	S	76
1515	37.1	Y	Y	29.7	Y	Y	39.8	Y	Y	37.8	Y	Y	36.7	Y	Y	34.1	Y	Y	0	Y	S	79
1530	37	Y	Y	29.6	Y	Y	39.6	Y	Y	37.6	Y	Y	36.7	Y	Y	34.3	Y	Y	0	Y	S	78
1545	36.9	Y	Y	29.6	Y	Y	39.4	Y	Y	37.5	Y	Y	36.7	Y	Y	33.6	Y	Y	1	Y	S	78
1600	36.8	Y	Y	29.5	Y	Y	39.2	Y	Y	37.4	Y	Y	36.5	Y	Y	33.4	Y	Y	0	Y	S	79
1645	-	-	-	-	-	-	-	-	-	-	-	-	22.6	Y	Y	-	-	-	-	-	-	-
1700	-	-	-	-	-	-	-	-	-	-	-	-	21.7	Y	Y	-	-	-	-	-	-	-
1715	-	-	-	-	-	-	-	-	-	-	-	-	20.9	Y	Y	-	-	-	-	-	-	-
1730	-	-	-	-	-	-	-	-	-	-	-	-	18.6	Y	Y	-	-	-	-	-	-	-
0745	2.8	Y	Y	6.2	Y	Y	4.3	Y	Y	6	Y	Y	5.3	Y	Y	8.1	Y	Y	0	Y	NE	64
0800	4.5	Y	Y	5.8	Y	Y	3.9	Y	Y	5.7	Y	Y	5.5	Y	Y	5.8	Y	Y	2	Y	N/NE	65
0815	6	Y	Y	7.5	Y	Y	5.4	Y	Y	6.8	Y	Y	6.1	Y	Y	6.8	Y	Y	3	Y	NE	72
0830	6.3	Y	Y	8.3	Y	Y	6.2	Y	Y	7.5	Y	Y	6.4	Y	Y	7.5	Y	Y	0	Y	SE	70
0845	6.8	Y	Y	8.6	Y	Y	6.7	Y	Y	8	Y	Y	8.6	Y	Y	9.2	Y	Y	4	Y	SE	62
0900	7.2	Y	Y	8.8	Y	Y	7.1	Y	Y	8.3	Y	Y	9.6	Y	Y	10.1	Y	Y	0	Y	SE	61
0915	6.9	Y	Y	8.6	Y	Y	6.8	Y	Y	8	Y	Y	10.4	Y	Y	10.2	Y	Y	0	Y	SE	58
0930	6.8	Y	Y	8.4	Y	Y	6.8	Y	Y	7.9	Y	Y	11.3	Y	Y	10.4	Y	Y	0	Y	SE	55
0945	6.4	Y	Y	8.1	Y	Y	6.4	Y	Y	7.6	Y	Y	12.1	Y	Y	10.2	Y	Y	3	Y	SE	44
1000	6.1	Y	Y	7.8	Y	Y	5.9	Y	Y	7.3	Y	Y	12.9	Y	Y	10.3	Y	Y	0	Y	SE	43
1015	6	Y	Y	8	Y	Y	6	Y	Y	7.4	Y	Y	14	Y	Y	10.3	Y	Y	0	Y	SE	41
1030	6.3	Y	Y	8.2	Y	Y	6.2	Y	Y	7.7	Y	Y	15.3	Y	Y	11	Y	Y	0	Y	SE	45
1045	6.6	Y	Y	8.8	Y	Y	6.7	Y	Y	7.3	Y	Y	16.9	Y	Y	11.8	Y	Y	0	Y	SE	57
1100	7	Y	Y	9.4	Y	Y	7.3	Y	Y	8.6	Y	Y	18.5	Y	Y	12.3	Y	Y	2	Y	SE	55
1115	8.2	Y	Y	11	Y	Y	9.2	Y	Y	10.2	Y	Y	20.6	Y	Y	14.3	Y	Y	1	Y	S	59

ENVIRON

Air and Meteorological Monitoring
Malibu High School, Building G Area
30215 Morning View Drive
Malibu, California

Time	Respirable Dust TWA (µg/m³)																		Meteorological Data			
	MIE DR-4000 West, by Building K	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	MIE DR-4000 North, Hill by Building J	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	MIE DR-4000 East, by Amphitheatre	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	MIE DR-4000 Southeast, by Building I	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	pDR-1500 A	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	pDR-1500 B	Site AL <2500 (Yes/No)	Community AL <50 (Yes/No)	Wind Speed (mph)	Wind <25 mph (Yes/No)	Wind Direction	Relative Humidity (%)[1]
December 22, 2014 (Day 1 of Excavation) *Continued*																						
1130	9.1	Y	Y	12.3	Y	Y	10.6	Y	Y	11.5	Y	Y	22.3	Y	Y	16.4	Y	Y	1	Y	S	64
1230	11.2	Y	Y	14.2	Y	Y	12.9	Y	Y	14	Y	Y	26.4	Y	Y	19.4	Y	Y	3	Y	S	62
1245	11.1	Y	Y	14	Y	Y	12.8	Y	Y	13.9	Y	Y	26.7	Y	Y	19.6	Y	Y	0	Y	S	58
1300	11	Y	Y	13.9	Y	Y	12.6	Y	Y	13.8	Y	Y	27	Y	Y	19.8	Y	Y	3	Y	S	60
1315	10.9	Y	Y	13.8	Y	Y	12.5	Y	Y	13.8	Y	Y	27.3	Y	Y	19.9	Y	Y	4	Y	S	59
1330	10.9	Y	Y	13.7	Y	Y	12.3	Y	Y	13.7	Y	Y	27.6	-	Y	20.1	Y	Y	3	Y	S	62
1345	10.7	Y	Y	13.4	Y	Y	12	Y	Y	13.5	Y	Y	27.8	Y	Y	19.7	Y	Y	3	Y	S	57
1400	10.6	Y	Y	13.2	Y	Y	11.8	Y	Y	13.4	Y	Y	28	Y	Y	19.6	Y	Y	0	Y	S	58
1415	10.5	Y	Y	13.2	Y	Y	11.7	Y	Y	13.3	Y	Y	28.2	Y	Y	19.6	Y	Y	1	Y	S	56
1430	10.3	Y	Y	13	Y	Y	11.4	Y	Y	13.2	Y	Y	28.4	Y	Y	19.6	Y	Y	2	Y	S	53
December 23, 2014 (Day 2 of Excavation)																						
1445	10.2	Y	Y	12.8	Y	Y	11.2	Y	Y	13.1	Y	Y	28.4	Y	Y	19.4	Y	Y	3	Y	S	49
1500	10.1	Y	Y	12.8	Y	Y	11.1	Y	Y	13	Y	Y	28.5	Y	Y	19.3	Y	Y	1	Y	S	53
1515	9.9	Y	Y	12.6	Y	Y	10.8	Y	Y	12.9	Y	Y	28.2	Y	Y	18.8	Y	Y	2	Y	SW	52
1530	9.8	Y	Y	12.5	Y	Y	10.7	Y	Y	12.8	Y	Y	28.1	Y	Y	18.7	Y	Y	1	Y	SW	53
1545	9.7	Y	Y	12.4	Y	Y	10.5	Y	Y	12.7	Y	Y	27.8	Y	Y	18.4	Y	Y	0	Y	SW	51
1600	9.5	Y	Y	12.3	Y	Y	10.2	Y	Y	12.6	Y	Y	27.6	Y	Y	18.2	Y	Y	0	Y	SW	49
December 29, 2014 (Backfill of Excavation)																						
0800	3.4	Y	Y	5.2	Y	Y	4.5	Y	Y	8.6	Y	Y	8.1	Y	Y	NA	NA	Y	1	Y	20º NE	67
0900	6.7	Y	Y	8.5	Y	Y	7.9	Y	Y	7.4	Y	Y	10.7	Y	Y	NA	NA	Y	2	Y	0-90º	54
1000	7.8	Y	Y	10.1	Y	Y	9.5	Y	Y	11.7	Y	Y	11	Y	Y	NA	NA	Y	2	Y	60º	55

Notes:
[1] Baseline, before excavation
µg/m^3 – micrograms per cubic meter
TWA – time weighted average
MIE DR-4000 – stationary dust monitor model
pDR-1500 A – personal dust monitor model
mph – miles per hour
- = only pDR 1500A used during off-loading to roll off bin
AL - Action Level
Readings were collected every 15 minutes during excavation and every hour during backfill.
Y - Yes
E - East
N - North
NE - Northeast
S - South
SE - Southeast
SW - Southwest
NA - Not Applicable

Appendix C

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-97767-1
Client Project/Site: Malibu, SMMUSD

For:
ENVIRON International Corp.
18100 Von Karman Avenue
Irvine, California 92612

Attn: Safaa Dergham

Authorized for release by:
1/5/2015 1:13:58 PM
Camille Murray, Project Manager I
camille.murray@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
patty.mata@testamericainc.com

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Sample Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97767-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-97767-2	IS-SIDEWALL-B	Solid	12/24/14 10:16	12/24/14 15:15

Job ID: 440-97767-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-97767-1

Comments
No additional comments.

Receipt
The samples were received on 12/24/2014 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9º C.

GC Semi VOA
Method(s) 8082: Batch: 258899 / 259027
The following samples underwent a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (440-97767-2), (440-97773-1), (440-97773-1 MS), (440-97773-1 MSD), (LCS 280-258758/2-A), (MB 280-258758/1-A).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) Increment, prep: The following samples were air dried and sieved per the procedure; however, the samples contained material that would not pass through the sieve: IS-SIDEWALL-B (440-97767-2). This material was removed and not extracted. The material appeared to be rocks and small amount of vegetation including grass and leaves. Batch: 258575; Method: 8082 (ISM_DD_SI_SS)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97767-1

Client Sample ID: IS-SIDEWALL-B
Date Collected: 12/24/14 10:16
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97767-2
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 13:36	1
Aroclor 1221	ND		46		ug/Kg		12/30/14 19:27	01/02/15 13:36	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 13:36	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 13:36	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 13:36	1
Aroclor 1254	**190**		32		ug/Kg		12/30/14 19:27	01/02/15 13:36	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 13:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*59 - 130*	*12/30/14 19:27*	*01/02/15 13:36*	*1*
Tetrachloro-m-xylene	*99*		*53 - 128*	*12/30/14 19:27*	*01/02/15 13:36*	*1*

Method Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97767-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Lab Chronicle

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97767-1

Client Sample ID: IS-SIDEWALL-B
Date Collected: 12/24/14 10:16
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97767-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	ISM Prep	Increment, prep				1.0 g	258575	12/29/14 08:06	BMS	TAL DEN
Total/NA	Prep	3546			30.83 g	10 mL	258758	12/30/14 19:27	KI	TAL DEN
Total/NA	Analysis	8082		1	30.83 g	10 mL	258899	01/02/15 13:36	TDJ	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-258758/1-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258758

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1221	ND		46		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1254	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*59 - 130*	*12/30/14 19:27*	*01/02/15 12:53*	*1*
Tetrachloro-m-xylene	*98*		*53 - 128*	*12/30/14 19:27*	*01/02/15 12:53*	*1*

Lab Sample ID: LCS 280-258758/2-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			64.9	68.1		ug/Kg		105	54 - 132		
Aroclor 1260			64.9	68.7		ug/Kg		106	62 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*59 - 130*
Tetrachloro-m-xylene	*98*		*53 - 128*

Lab Sample ID: 440-97773-A-1-E MS
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		61.3	196	E F1	ug/Kg		320	54 - 132		
Aroclor 1260	ND		61.3	98.3	F1	ug/Kg		160	62 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*59 - 130*
Tetrachloro-m-xylene	*102*		*53 - 128*

Lab Sample ID: 440-97773-A-1-F MSD
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		66.0	65.7	F2	ug/Kg		100	54 - 132	100	36
Aroclor 1260	ND		66.0	87.3	F1	ug/Kg		132	62 - 129	12	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*59 - 130*
Tetrachloro-m-xylene	*86*		*53 - 128*

QC Association Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97767-1

GC Semi VOA

ISM Prep Batch: 258575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97767-2	IS-SIDEWALL-B	Total/NA	Solid	Increment, prep	
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	Increment, prep	
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, prep	

Prep Batch: 258758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97767-2	IS-SIDEWALL-B	Total/NA	Solid	3546	258575
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	3546	258575
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	258575
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-258758/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 258899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97767-2	IS-SIDEWALL-B	Total/NA	Solid	8082	258758
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	8082	258758
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	258758
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	8082	258758
MB 280-258758/1-A	Method Blank	Total/NA	Solid	8082	258758

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97767-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-15 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-15 *
Hawaii	State Program	9	N/A	01-29-15 *
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-15 *
USDA	Federal		P330-09-00080	06-06-15
USEPA UCMR	Federal	1	CA01531	01-31-15

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-15
A2LA	ISO/IEC 17025		2907.01	10-31-15
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-15
Arkansas DEQ	State Program	6	88-0687	06-01-15
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-15
Georgia	State Program	4	N/A	01-09-15
Illinois	NELAP	5	200017	04-30-15
Iowa	State Program	7	370	12-01-14 *
Kansas	NELAP	7	E-10166	04-30-15
Louisiana	NELAP	6	02096	06-30-15
Maine	State Program	1	CO0002	03-03-15
Nevada	State Program	9	CO0026	07-31-15
New Hampshire	NELAP	1	205310	04-28-15
New Jersey	NELAP	2	CO004	06-30-15
New Mexico	State Program	6	CO00026	01-09-15
New York	NELAP	2	11964	03-31-15
North Dakota	State Program	8	R-034	01-09-15 *
Oklahoma	State Program	6	8614	08-31-15
Oregon	NELAP	10	4025	01-09-15
Pennsylvania	NELAP	3	68-00664	07-30-15
South Carolina	State Program	4	72002001	06-30-15
Texas	NELAP	6	T104704183-13-8	09-30-15
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-15
Virginia	NELAP	3	460232	06-14-15
Washington	State Program	10	C583	08-03-15
West Virginia DEP	State Program	3	354	11-30-15
Wisconsin	State Program	5	999615430	08-31-15
Wyoming (UST)	A2LA	8	2907.01	10-31-15

* Certification renewal pending - certification considered valid.

ENVIRON — CHAIN-of-CUSTODY № 11118

☐ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☑ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

PROJECT NAME / FACILITY ID: SMMUSD
PROJECT NUMBER: 04-33980M
DATE: 12/24/14
PROJECT LOCATION: Malibu, Ca.
IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #:

MSA#: WO#:
FIELD PERSON: Brian B./Amy C./Mike R.
PROJECT MANAGER: Safaa D.
LABORATORY: Test America

SAMPLER: Brian Bauer
SIGNATURE:

440-97767 Chain of Custody

SAMPLE I.D. NUMBER	YEAR 2014 SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (O) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
SW-1B	12/24	1016	1	1	S	1	1	NO	X	"B" Sidewall Samples
SW-2B		1015								Combine all samples
SW-3B		1015								(SW-1B to SW-25B)
SW-4B		1014								into one incremental
SW-5B		1014								sample named
SW-6B		013								"IS-SIDEWALL-B"
SW-7B		1012								
SW-8B		1011								
SW-9B		1010								• Expedite TAT
SW-10B		1009								to the extent
SW-11B		1009								possible.
SW-12B		1008								
SW-13B	↓	1007	↓	↓	↓	↓	↓	↓	↓	
TOTAL	X	X	X							

RELINQUISHED BY:	TIME/DATE: 1220 / 12/24/14	RECEIVED BY: Shahram	TIME/DATE: 1220 / 12/24/14
RELINQUISHED BY: Shahram	TIME/DATE: 1515 / 12/24/14	(COMPANY): TAL RECEIVED BY:	TIME/DATE: 1515 12/24/14
RELINQUISHED BY:	TIME/DATE:	(COMPANY): TAL RECEIVED BY:	TIME/DATE:
		(COMPANY):	

TURNAROUND TIME (CIRCLE ONE): SAME DAY / 24 HOURS / 48 HOURS / 72 HOURS / 5 DAYS / NORMAL

SAMPLE INTEGRITY: IR-63 INTACT: (Y) N Temp 2.6/1.9°C

IF SEALED, SEAL INTEGRITY: INTACT: Y N

O = OTHER; NO = NONE; U = UNKNOWN; S = H_2SO_4; N = HNO_3; H = HCl;

FILE: LOG FORMS\Chain_of_Custody

1/5/2015

ENVIRON — CHAIN-of-CUSTODY № 11119

☑ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☑ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT LOCATION: Malibu, Ca.

FIELD PERSON: Brian B/Amy C/Mike R.

PROJECT MANAGER: Safan D.

LABORATORY: Test Amenca

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: _____

SAMPLER: Brian Bauer

SIGNATURE: [signature]

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2014)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED / UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
SW-14B	12/24	1006	–	–	S	1	–	N	X	see page 1
SW-15B		1005								
SW-16B		1004								
SW-17B		1003								
SW-18B		1002								
SW-19B		1001								
SW-20B		1000								
SW-21B		0958								
SW-22B		0956								
SW-23B		0955								
SW-24B		0954								
SW-25B	↓	0953	↓	↓	↓	↓	↓	↓	↓	
		(FC)								
TOTAL	X	X	X							

RELINQUISHED BY: [signature] TIME/DATE: 1220 / 12/24/14

RELINQUISHED BY: Shafi ANABI TIME/DATE: 1515 / 12/24/14

RELINQUISHED BY: TIME/DATE:

RECEIVED BY: Shafi ANABI (COMPANY): DCS TIME/DATE: 1220 / 12/24/14

RECEIVED BY: [signature] (COMPANY): TAI TIME/DATE: 1515 12/24/14

RECEIVED BY: (COMPANY): TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY | 24 HOURS | 48 HOURS | 72 HOURS | 5 DAYS | NORMAL

SAMPLE INTEGRITY 12-63

INTACT: (Y) N Temp 2.6/1.9°C

IF SEALED, SEAL INTEGRITY

INTACT: Y N

H = HCL; N = HNO3; S = H2SO; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

1/5/2015

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97767-1

Login Number: 97767

List Source: TestAmerica Irvine

List Number: 1

Creator: Kim, Guerry

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97767-1

Login Number: 97767
List Number: 2
Creator: Conquest, Tyler W

List Source: TestAmerica Denver
List Creation: 12/27/14 11:07 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-97768-1
Client Project/Site: Malibu, SMMUSD

For:
ENVIRON International Corp.
18100 Von Karman Avenue
Irvine, California 92612

Attn: Safaa Dergham

Authorized for release by:
1/5/2015 1:22:27 PM
Camille Murray, Project Manager I
camille.murray@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
patty.mata@testamericainc.com

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Sample Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97768-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-97768-1	IS-BASE-B	Solid	12/24/14 08:29	12/24/14 15:15

Job ID: 440-97768-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-97768-1

Comments
No additional comments.

Receipt
The sample was received on 12/24/2014 3:15 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9º C.

GC Semi VOA
Method(s) 8082: The following samples required a dilution due to abundance of target analytes: IS-BASE-B (440-97768-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
Elevated reporting limits (RLs) are provided.

Method(s) 8082: The following samples underwent a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (440-97773-1 MS), (440-97773-1 MSD), (LCS 280-258758/2-A), (MB 280-258758/1-A), IS-BASE-B (440-97768-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) Increment, prep: The following samples were air dried and sieved per the procedure; however, the samples contained material that would not pass through the sieve: IS-BASE-B (440-97768-1). This material was removed and not extracted. The material appeared to be rocks and small amount of vegetation including grass and leaves. Batch: 258575; Method: 8082 (ISM_DD_SI_SS)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97768-1

Client Sample ID: IS-BASE-B
Date Collected: 12/24/14 08:29
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97768-1
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		130		ug/Kg		12/30/14 19:27	01/04/15 14:18	4
Aroclor 1221	ND		180		ug/Kg		12/30/14 19:27	01/04/15 14:18	4
Aroclor 1232	ND		130		ug/Kg		12/30/14 19:27	01/04/15 14:18	4
Aroclor 1242	ND		130		ug/Kg		12/30/14 19:27	01/04/15 14:18	4
Aroclor 1248	ND		130		ug/Kg		12/30/14 19:27	01/04/15 14:18	4
Aroclor 1254	**600**		130		ug/Kg		12/30/14 19:27	01/04/15 14:18	4
Aroclor 1260	ND		130		ug/Kg		12/30/14 19:27	01/04/15 14:18	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*111*	*D*	*59 - 130*	*12/30/14 19:27*	*01/04/15 14:18*	*4*
Tetrachloro-m-xylene	*86*	*D*	*53 - 128*	*12/30/14 19:27*	*01/04/15 14:18*	*4*

Method Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97768-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Lab Chronicle

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97768-1

Client Sample ID: IS-BASE-B
Date Collected: 12/24/14 08:29
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97768-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	ISM Prep	Increment, prep				1.0 g	258575	12/29/14 08:06	BMS	TAL DEN
Total/NA	Prep	3546			31.32 g	10 mL	258758	12/30/14 19:27	KI	TAL DEN
Total/NA	Analysis	8082		4	31.32 g	10 mL	259027	01/04/15 14:18	TDJ	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-258758/1-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258758

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1221	ND		46		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1254	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*59 - 130*	*12/30/14 19:27*	*01/02/15 12:53*	*1*
Tetrachloro-m-xylene	*98*		*53 - 128*	*12/30/14 19:27*	*01/02/15 12:53*	*1*

Lab Sample ID: LCS 280-258758/2-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			64.9	68.1		ug/Kg		105	54 - 132		
Aroclor 1260			64.9	68.7		ug/Kg		106	62 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*59 - 130*
Tetrachloro-m-xylene	*98*		*53 - 128*

Lab Sample ID: 440-97773-A-1-E MS
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		61.3	196	E F1	ug/Kg		320	54 - 132		
Aroclor 1260	ND		61.3	98.3	F1	ug/Kg		160	62 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*59 - 130*
Tetrachloro-m-xylene	*102*		*53 - 128*

Lab Sample ID: 440-97773-A-1-F MSD
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		66.0	65.7	F2	ug/Kg		100	54 - 132	100	36
Aroclor 1260	ND		66.0	87.3	F1	ug/Kg		132	62 - 129	12	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*59 - 130*
Tetrachloro-m-xylene	*86*		*53 - 128*

QC Association Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97768-1

GC Semi VOA

ISM Prep Batch: 258575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97768-1	IS-BASE-B	Total/NA	Solid	Increment, prep	
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	Increment, prep	
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, prep	

Prep Batch: 258758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97768-1	IS-BASE-B	Total/NA	Solid	3546	258575
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	3546	258575
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	258575
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-258758/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 258899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	8082	258758
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	258758
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	8082	258758
MB 280-258758/1-A	Method Blank	Total/NA	Solid	8082	258758

Analysis Batch: 259027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97768-1	IS-BASE-B	Total/NA	Solid	8082	258758

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97768-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-15 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-15 *
Hawaii	State Program	9	N/A	01-29-15 *
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-15 *
USDA	Federal		P330-09-00080	06-06-15
USEPA UCMR	Federal	1	CA01531	01-31-15

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-15
A2LA	ISO/IEC 17025		2907.01	10-31-15
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-15
Arkansas DEQ	State Program	6	88-0687	06-01-15
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-15
Georgia	State Program	4	N/A	01-09-15
Illinois	NELAP	5	200017	04-30-15
Iowa	State Program	7	370	12-01-14 *
Kansas	NELAP	7	E-10166	04-30-15
Louisiana	NELAP	6	02096	06-30-15
Maine	State Program	1	CO0002	03-03-15
Nevada	State Program	9	CO0026	07-31-15
New Hampshire	NELAP	1	205310	04-28-15
New Jersey	NELAP	2	CO004	06-30-15
New Mexico	State Program	6	CO00026	01-09-15
New York	NELAP	2	11964	03-31-15
North Dakota	State Program	8	R-034	01-09-15 *
Oklahoma	State Program	6	8614	08-31-15
Oregon	NELAP	10	4025	01-09-15
Pennsylvania	NELAP	3	68-00664	07-30-15
South Carolina	State Program	4	72002001	06-30-15
Texas	NELAP	6	T104704183-13-8	09-30-15
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-15
Virginia	NELAP	3	460232	06-14-15
Washington	State Program	10	C583	08-03-15
West Virginia DEP	State Program	3	354	11-30-15
Wisconsin	State Program	5	999615430	08-31-15
Wyoming (UST)	A2LA	8	2907.01	10-31-15

* Certification renewal pending - certification considered valid.

ENVIRON CHAIN-of-CUSTODY

№ 09988

☒ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT LOCATION: Malibu, CA

FIELD PERSON: A. Caron / B. Bauer / M. Raposo

PROJECT MANAGER: Safaa Dergham

LABORATORY: Test America

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____

SAMPLER: Amy Caron

SIGNATURE:

440-97768 Chain of Custody

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2014)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
B-1B	12/24	0808	1.5	/	S	1	U	NO	X	"B" Base Samples
B-2B		0807		/						
B-3B		0809		/						Combine all samples
B-4B		0810		/						(B-1B to B-26B) into
B-5B		0811		/						one incremental sample
B-6B		0812		/						named "IS-BASE-B"
B-7B		0813		/						
B-8B		0813		/						
B-9B		0814		/						
B-10B		0814		/						
B-11B		0815		/						
B-12B		0816		/						
B-13B	↓	0818	↓	/	↓	↓	↓	↓	↓	
TOTAL	X	X	X							expedite to the extent possible

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
	1220 / 12/24/14	Shahla Nabi (COMPANY): DCS	1220 / 12/24/14
Shahla Nabi	1515 / 12/24/14	(COMPANY): TAI	15:15 12/24/14
		(COMPANY):	

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: IR-63 INTACT: (Y) N Temp 2.6/1.9°C

IF SEALED, SEAL INTEGRITY: INTACT: Y N

H = HCL; N = HNO_3; S = H_2SO_4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

ENVIRON — CHAIN-of-CUSTODY

№ 09987

☒ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

FIELD PERSON: A. Caron / B. Baver / M. Raposo

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT MANAGER: Safaa Dergham

PROJECT LOCATION: Malibu, CA

LABORATORY: Test America

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____

SAMPLER: Amy Caron

SIGNATURE:

SAMPLE I.D. NUMBER	YEAR 2014 SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
B-14B	12/24	0819	1.5		S	1	U	NO	X	See pg. 1
B-15B		0820								
B-16B		0821								
B-17B		0821								
B-18B		0822								
B-19B		0822								
B-20B		0823								
B-21B		0824								
B-22B		0825								
B-23B		0826								
B-24B		0827								
B-25B		0828								
B-26B	↓	0829	↓		↓	↓	↓	↓	↓	
TOTAL	X	X	X							

RELINQUISHED BY:	TIME/DATE: 1220 / 12/24/14	RECEIVED BY: Shahid NABI (COMPANY): DCS	TIME/DATE: 1220/12/24/14
RELINQUISHED BY: Shahid NABI	TIME/DATE: 1515 / 12/24/14	RECEIVED BY: (COMPANY): TAI	TIME/DATE: 15:15 12/24/14
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: IR-63 INTACT: (Y) N Temp 2.6/1.9°C

IF SEALED, SEAL INTEGRITY: INTACT: Y N

H = HCl; N = HNO_3; S = H_2SO_4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

1/5/2015

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97768-1

Login Number: 97768

List Source: TestAmerica Irvine

List Number: 1

Creator: Kim, Guerry

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97768-1

Login Number: 97768
List Number: 2
Creator: Conquest, Tyler W

List Source: TestAmerica Denver
List Creation: 12/27/14 11:19 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-97769-1
Client Project/Site: Malibu, SMMUSD

For:
ENVIRON International Corp.
18100 Von Karman Avenue
Irvine, California 92612

Attn: Safaa Dergham

Authorized for release by:
1/5/2015 1:35:07 PM
Camille Murray, Project Manager I
camille.murray@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
patty.mata@testamericainc.com

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Sample Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97769-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-97769-1	IS-BASE-A	Solid	12/24/14 08:34	12/24/14 15:15

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97769-1

Job ID: 440-97769-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-97769-1

Comments
No additional comments.

Receipt
The sample was received on 12/24/2014 3:15 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

GC Semi VOA
Method(s) 8082: The following samples underwent a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (440-97773-1 MS), (440-97773-1 MSD), (LCS 280-258758/2-A), (MB 280-258758/1-A), IS-BASE-A (440-97769-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) Increment, prep: The following samples were air dried and sieved per the procedure; however, the samples contained material that would not pass through the sieve: IS-BASE-A (440-97769-1). This material was removed and not extracted. The material appeared to be rocks and small amount of vegetation including grass and leaves. Batch: 258575; Method: 8082 (ISM_DD_SI_SS)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97769-1

Client Sample ID: IS-BASE-A
Date Collected: 12/24/14 08:34
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97769-1
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		31		ug/Kg		12/30/14 19:27	01/02/15 14:19	1
Aroclor 1221	ND		45		ug/Kg		12/30/14 19:27	01/02/15 14:19	1
Aroclor 1232	ND		31		ug/Kg		12/30/14 19:27	01/02/15 14:19	1
Aroclor 1242	ND		31		ug/Kg		12/30/14 19:27	01/02/15 14:19	1
Aroclor 1248	ND		31		ug/Kg		12/30/14 19:27	01/02/15 14:19	1
Aroclor 1254	**140**		31		ug/Kg		12/30/14 19:27	01/02/15 14:19	1
Aroclor 1260	ND		31		ug/Kg		12/30/14 19:27	01/02/15 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*59 - 130*	*12/30/14 19:27*	*01/02/15 14:19*	*1*
Tetrachloro-m-xylene	*115*		*53 - 128*	*12/30/14 19:27*	*01/02/15 14:19*	*1*

Method Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97769-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Lab Chronicle

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97769-1

Client Sample ID: IS-BASE-A
Date Collected: 12/24/14 08:34
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97769-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	ISM Prep	Increment, prep				1.0 g	258575	12/29/14 08:06	BMS	TAL DEN
Total/NA	Prep	3546			31.43 g	10 mL	258758	12/30/14 19:27	KI	TAL DEN
Total/NA	Analysis	8082		1	31.43 g	10 mL	258899	01/02/15 14:19	TDJ	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-258758/1-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258758

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1221	ND		46		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1254	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*59 - 130*	*12/30/14 19:27*	*01/02/15 12:53*	*1*
Tetrachloro-m-xylene	*98*		*53 - 128*	*12/30/14 19:27*	*01/02/15 12:53*	*1*

Lab Sample ID: LCS 280-258758/2-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			64.9	68.1		ug/Kg		105	54 - 132		
Aroclor 1260			64.9	68.7		ug/Kg		106	62 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*59 - 130*
Tetrachloro-m-xylene	*98*		*53 - 128*

Lab Sample ID: 440-97773-A-1-E MS
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		61.3	196	E F1	ug/Kg		320	54 - 132		
Aroclor 1260	ND		61.3	98.3	F1	ug/Kg		160	62 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*59 - 130*
Tetrachloro-m-xylene	*102*		*53 - 128*

Lab Sample ID: 440-97773-A-1-F MSD
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		66.0	65.7	F2	ug/Kg		100	54 - 132	100	36
Aroclor 1260	ND		66.0	87.3	F1	ug/Kg		132	62 - 129	12	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*59 - 130*
Tetrachloro-m-xylene	*86*		*53 - 128*

QC Association Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97769-1

GC Semi VOA

ISM Prep Batch: 258575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97769-1	IS-BASE-A	Total/NA	Solid	Increment, prep	
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	Increment, prep	
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, prep	

Prep Batch: 258758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97769-1	IS-BASE-A	Total/NA	Solid	3546	258575
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	3546	258575
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	258575
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-258758/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 258899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97769-1	IS-BASE-A	Total/NA	Solid	8082	258758
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	8082	258758
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	258758
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	8082	258758
MB 280-258758/1-A	Method Blank	Total/NA	Solid	8082	258758

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97769-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-15 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-15 *
Hawaii	State Program	9	N/A	01-29-15 *
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-15 *
USDA	Federal		P330-09-00080	06-06-15
USEPA UCMR	Federal	1	CA01531	01-31-15

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-15
A2LA	ISO/IEC 17025		2907.01	10-31-15
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-15
Arkansas DEQ	State Program	6	88-0687	06-01-15
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-15
Georgia	State Program	4	N/A	01-09-15
Illinois	NELAP	5	200017	04-30-15
Iowa	State Program	7	370	12-01-14 *
Kansas	NELAP	7	E-10166	04-30-15
Louisiana	NELAP	6	02096	06-30-15
Maine	State Program	1	CO0002	03-03-15
Nevada	State Program	9	CO0026	07-31-15
New Hampshire	NELAP	1	205310	04-28-15
New Jersey	NELAP	2	CO004	06-30-15
New Mexico	State Program	6	CO00026	01-09-15
New York	NELAP	2	11964	03-31-15
North Dakota	State Program	8	R-034	01-09-15 *
Oklahoma	State Program	6	8614	08-31-15
Oregon	NELAP	10	4025	01-09-15
Pennsylvania	NELAP	3	68-00664	07-30-15
South Carolina	State Program	4	72002001	06-30-15
Texas	NELAP	6	T104704183-13-8	09-30-15
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-15
Virginia	NELAP	3	460232	06-14-15
Washington	State Program	10	C583	08-03-15
West Virginia DEP	State Program	3	354	11-30-15
Wisconsin	State Program	5	999615430	08-31-15
Wyoming (UST)	A2LA	8	2907.01	10-31-15

* Certification renewal pending - certification considered valid.

ENVIRON

CHAIN-of-CUSTODY

№ 09985

PAGE 1 of 2

☒ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

PROJECT NAME / FACILITY ID: SMMUSD

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT LOCATION: Malibu, CA

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #:

MSA#: WO#:

FIELD PERSON: A. Caron / B. Bauer / M. Raposo

PROJECT MANAGER: Safaa Dergham

LABORATORY: Test America

440-97769 Chain of Custody

SAMPLER: Amy Caron

SIGNATURE: [signature]

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2014)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
B-1A	12/24	0834	1.5	/	S	1	U	ND	X	"A" Base Samples
B-2A		0833		/						
B-3A		0832		/						Combine all samples
B-4A		0831		/						(B-1A to B-26A) into
B-5A		0830		/						one incremental sample
B-6A		0830		/						named "IS-BASE-A"
B-7A		0829		/						
B-8A		0828		/						
B-9A		0826		/						
B-10A		0826		/						
B-11A		0825		/						
B-12A		0824		/						
B-13A	↓	0823	↓	/	↓	↓	↓	↓	↓	expedite to the
TOTAL	X	X	X							extent possible

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
[signature]	1220 / 12/24/14	Shafi Qalabi (COMPANY): DES	1220 / 12/24/14
Shafi Qalabi	1515 / 12/24/14	MARS (COMPANY): TAI	15:15 12/24/14
		(COMPANY):	

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY 1R-63 INTACT: (Y) N Temp 2.1/1.4 °C

IF SEALED, SEAL INTEGRITY INTACT: Y N

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

ENVIRON — CHAIN-of-CUSTODY

No 09986

☒ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT LOCATION: Malibu, CA

FIELD PERSON: A. Caron / B. Bauer / M. Raposo

PROJECT MANAGER: Safaa Dergham

LABORATORY: Test America

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____

SAMPLER: Amy Caron

SIGNATURE:

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2014)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (D) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
B-14A	12/24	0822	1.5	/	S	1	U	NO	X	see pg. 1
B-15A		0821		/						
B-16A		0820		/						
B-17A		0819		/						
B-18A		0818		/						
B-19A		0816		/						
B-20A		0815		/						
B-21A		0814		/						
B-22A		0813		/						
B-23A		0812		/						
B-24A		0810		/						
B-25A		0809		/						
B-26A	↓	0800	↓	/	↓	↓	↓	↓	↓	expedite to the extent possible
TOTAL	X	X	X							

RELINQUISHED BY: _____ TIME/DATE: 1220 / 12/24/14

RECEIVED BY: _____ (COMPANY): ShahiQNARI TIME/DATE: 1220 / 12/24/14

RELINQUISHED BY: ShahiQNARI TIME/DATE: 1515 / 12/24/14

RECEIVED BY: _____ (COMPANY): TAI DCS TIME/DATE: 15:15 12/24/14

RELINQUISHED BY: _____ TIME/DATE: _____

RECEIVED BY: _____ (COMPANY): _____ TIME/DATE: _____

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: INTACT: (Y) N Temp 21/1.4°C IR-63

IF SEALED, SEAL INTEGRITY: INTACT: Y N

H = HCl; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

1/5/2015

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97769-1

Login Number: 97769

List Source: TestAmerica Irvine

List Number: 1

Creator: Kim, Guerry

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97769-1

Login Number: 97769
List Number: 2
Creator: Conquest, Tyler W

List Source: TestAmerica Denver
List Creation: 12/27/14 11:20 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-97771-1
Client Project/Site: Malibu, SMMUSD

For:
ENVIRON International Corp.
18100 Von Karman Avenue
Irvine, California 92612

Attn: Safaa Dergham

Authorized for release by:
1/5/2015 1:37:34 PM
Camille Murray, Project Manager I
camille.murray@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
patty.mata@testamericainc.com

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Sample Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97771-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-97771-1	IS-SIDEWALL-A	Solid	12/24/14 10:18	12/24/14 17:49

Case Narrative

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97771-1

Job ID: 440-97771-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-97771-1

Comments
No additional comments.

Receipt
The sample was received on 12/24/2014 3:15 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

GC Semi VOA
Method(s) 8082: The following samples underwent a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (440-97773-1 MS), (440-97773-1 MSD), (LCS 280-258758/2-A), (MB 280-258758/1-A), IS-SIDEWALL-A (440-97771-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) Increment, prep: The following samples were air dried and sieved per the procedure; however, the samples contained material that would not pass through the sieve: IS-SIDEWALL-A (440-97771-1). This material was removed and not extracted. The material appeared to be rocks and small amount of vegetation including grass and leaves. Batch: 258575; Method: 8082 (ISM_DD_SI_SS)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97771-1

Client Sample ID: IS-SIDEWALL-A
Date Collected: 12/24/14 10:18
Date Received: 12/24/14 17:49

Lab Sample ID: 440-97771-1
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 14:40	1
Aroclor 1221	ND		45		ug/Kg		12/30/14 19:27	01/02/15 14:40	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 14:40	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 14:40	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 14:40	1
Aroclor 1254	**120**		32		ug/Kg		12/30/14 19:27	01/02/15 14:40	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*59 - 130*	*12/30/14 19:27*	*01/02/15 14:40*	*1*
Tetrachloro-m-xylene	*108*		*53 - 128*	*12/30/14 19:27*	*01/02/15 14:40*	*1*

Method Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97771-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Lab Chronicle

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97771-1

Client Sample ID: IS-SIDEWALL-A
Date Collected: 12/24/14 10:18
Date Received: 12/24/14 17:49

Lab Sample ID: 440-97771-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	ISM Prep	Increment, prep				1.0 g	258575	12/29/14 08:06	BMS	TAL DEN
Total/NA	Prep	3546			31.31 g	10 mL	258758	12/30/14 19:27	KI	TAL DEN
Total/NA	Analysis	8082		1	31.31 g	10 mL	258899	01/02/15 14:40	TDJ	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-258758/1-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258758

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1221	ND		46		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1254	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*59 - 130*	*12/30/14 19:27*	*01/02/15 12:53*	*1*
Tetrachloro-m-xylene	*98*		*53 - 128*	*12/30/14 19:27*	*01/02/15 12:53*	*1*

Lab Sample ID: LCS 280-258758/2-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			64.9	68.1		ug/Kg		105	54 - 132		
Aroclor 1260			64.9	68.7		ug/Kg		106	62 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*59 - 130*
Tetrachloro-m-xylene	*98*		*53 - 128*

Lab Sample ID: 440-97773-A-1-E MS
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		61.3	196	E F1	ug/Kg		320	54 - 132		
Aroclor 1260	ND		61.3	98.3	F1	ug/Kg		160	62 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*59 - 130*
Tetrachloro-m-xylene	*102*		*53 - 128*

Lab Sample ID: 440-97773-A-1-F MSD
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		66.0	65.7	F2	ug/Kg		100	54 - 132	100	36
Aroclor 1260	ND		66.0	87.3	F1	ug/Kg		132	62 - 129	12	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*59 - 130*
Tetrachloro-m-xylene	*86*		*53 - 128*

QC Association Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97771-1

GC Semi VOA

ISM Prep Batch: 258575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97771-1	IS-SIDEWALL-A	Total/NA	Solid	Increment, prep	
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	Increment, prep	
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, prep	

Prep Batch: 258758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97771-1	IS-SIDEWALL-A	Total/NA	Solid	3546	258575
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	3546	258575
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	258575
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-258758/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 258899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97771-1	IS-SIDEWALL-A	Total/NA	Solid	8082	258758
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	8082	258758
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	258758
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	8082	258758
MB 280-258758/1-A	Method Blank	Total/NA	Solid	8082	258758

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97771-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-15 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-15 *
Hawaii	State Program	9	N/A	01-29-15 *
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-15 *
USDA	Federal		P330-09-00080	06-06-15
USEPA UCMR	Federal	1	CA01531	01-31-15

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-15
A2LA	ISO/IEC 17025		2907.01	10-31-15
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-15
Arkansas DEQ	State Program	6	88-0687	06-01-15
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-15
Georgia	State Program	4	N/A	01-09-15
Illinois	NELAP	5	200017	04-30-15
Iowa	State Program	7	370	12-01-14 *
Kansas	NELAP	7	E-10166	04-30-15
Louisiana	NELAP	6	02096	06-30-15
Maine	State Program	1	CO0002	03-03-15
Nevada	State Program	9	CO0026	07-31-15
New Hampshire	NELAP	1	205310	04-28-15
New Jersey	NELAP	2	CO004	06-30-15
New Mexico	State Program	6	CO00026	01-09-15
New York	NELAP	2	11964	03-31-15
North Dakota	State Program	8	R-034	01-09-15 *
Oklahoma	State Program	6	8614	08-31-15
Oregon	NELAP	10	4025	01-09-15
Pennsylvania	NELAP	3	68-00664	07-30-15
South Carolina	State Program	4	72002001	06-30-15
Texas	NELAP	6	T104704183-13-8	09-30-15
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-15
Virginia	NELAP	3	460232	06-14-15
Washington	State Program	10	C583	08-03-15
West Virginia DEP	State Program	3	354	11-30-15
Wisconsin	State Program	5	999615430	08-31-15
Wyoming (UST)	A2LA	8	2907.01	10-31-15

* Certification renewal pending - certification considered valid.

ENVIRON — CHAIN-of-CUSTODY № 11116

18100 Von Karman Ave., Suite 600
Irvine, CA 92612
(949) 261-5151
(949) 261-6202 (fax)

707 Wilshire Blvd., Suite 4950
Los Angeles, Calif. 90017
(213) 943-6300
(213) 943-6301 (fax)

1702 E Highland Avenue, Suite 412
Phoenix, AZ 85016
(602) 734-7700
(602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT LOCATION: Malibu, Ca.

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: _____

FIELD PERSON: Brian B/Amy C./Mike R.

PROJECT MANAGER: Sasha D.

LABORATORY: Test America

SAMPLER: Brian Bauer

SIGNATURE:

440-97771 Chain of Custody

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2014)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
SW-1A	12/24	0958	1	1	S	1	1	NO	X	"A" Sidewall Samples Combine all samples (SW-1A to SW-25A) into one incremental sample named "IS-SIDEWALL-A"
SW-2A		0959								
SW-3A		1000								
SW-4A		1001								
SW-5A		1001								
SW-6A		1002								
SW-7A		1002								
SW-8A		1003								
SW-9A		1004								
SW-10A		1005								•Expedite TAT to the extent possible.
SW-11A		1006								
SW-12A		1007								
SW-13A	↓	1008	↓	↓	↓	↓	↓	↓	↓	
TOTAL	X	X	X							

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
	1220 / 12/24/14	Shata@NABI (COMPANY: DCS)	1220 / 12/24/14
Shata@NABI	1515 / 12/24/14	(COMPANY: TAI)	15:15 12/24/14
		(COMPANY:)	

TURNAROUND TIME (CIRCLE ONE): SAME DAY / 24 HOURS / 48 HOURS / 72 HOURS / 5 DAYS / NORMAL

SAMPLE INTEGRITY — INTACT: (Y) N — IR-63 — Temp 2.1/1.4°C

IF SEALED, SEAL INTEGRITY — INTACT: Y N

H = HCL; N = HNO3; S = H2SO; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

1/5/2015

ENVIRON

CHAIN-of-CUSTODY №11117

PAGE 2 of 2

☑ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☑ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

PROJECT NAME / FACILITY ID: SMMUSD
PROJECT NUMBER: 04-33980M DATE: 12/24/14
PROJECT LOCATION: Malibu, Ca.
IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #:

MSA#: WO#:
FIELD PERSON: Brian B/Amy C./Mike R.
PROJECT MANAGER: Safaa D.
LABORATORY: Test America

SAMPLER: Brian Bauer
SIGNATURE: [signature]

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2014)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082										COMMENTS
SW-14A	12/24	1009	–	–	S	1	–	NO	X										see page 1
SW-15A	↓	1010	↓	↓	↓	↓	↓	↓	↓										
SW-16A	↓	1011	↓	↓	↓	↓	↓	↓	↓										
SW-17A	↓	1011	↓	↓	↓	↓	↓	↓	↓										
SW-18A	↓	1012	↓	↓	↓	↓	↓	↓	↓										
SW-19A	↓	1013	↓	↓	↓	↓	↓	↓	↓										
SW-20A	↓	1014	↓	↓	↓	↓	↓	↓	↓										
SW-21A	↓	1015	↓	↓	↓	↓	↓	↓	↓										
SW-22A	↓	1016	↓	↓	↓	↓	↓	↓	↓										
SW-23A	↓	1017	↓	↓	↓	↓	↓	↓	↓										
SW-24A	↓	1018	↓	↓	↓	↓	↓	↓	↓										
SW-25A	↓	1018	↓	↓	↓	↓	↓	↓	↓										
(ac)																			
TOTAL	X	X	X																

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
[signature]	1220 12/24/14	Shati Qn/ABI (COMPANY): DCS	1220 12/24/14
Shati Qn/ABI	1515 / 12/24/14	[signature] (COMPANY): TA	15:15 12/24/14
		(COMPANY):	

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY IR-63
INTACT: (Y) N Temp 2.1 / 1.4°c

IF SEALED, SEAL INTEGRITY
INTACT: Y N

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97771-1

Login Number: 97771

List Source: TestAmerica Irvine

List Number: 1

Creator: Kim, Guerry

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97771-1

Login Number: 97771
List Number: 2
Creator: Conquest, Tyler W

List Source: TestAmerica Denver
List Creation: 12/27/14 11:22 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-97772-1
Client Project/Site: Malibu, SMMUSD

For:
ENVIRON International Corp.
18100 Von Karman Avenue
Irvine, California 92612

Attn: Safaa Dergham

Authorized for release by:
1/5/2015 1:41:07 PM
Camille Murray, Project Manager I
camille.murray@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
patty.mata@testamericainc.com

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Sample Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97772-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-97772-1	IS-BASE-C	Solid	12/24/14 08:54	12/24/14 15:15

Job ID: 440-97772-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-97772-1

Comments
No additional comments.

Receipt
The sample was received on 12/24/2014 3:15 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0º C.

GC Semi VOA
Method(s) 8082: The following samples underwent a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (440-97773-1 MS), (440-97773-1 MSD), (LCS 280-258758/2-A), (MB 280-258758/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) Increment, prep: The following samples were air dried and sieved per the procedure; however, the samples contained material that would not pass through the sieve: IS-BASE-C (440-97772-1). This material was removed and not extracted. The material appeared to be rocks and small amount of vegetation including grass and leaves. Batch: 258575; Method: 8082 (ISM_DD_SI_SS)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97772-1

Client Sample ID: IS-BASE-C
Date Collected: 12/24/14 08:54
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97772-1
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:02	1
Aroclor 1221	ND		45		ug/Kg		12/30/14 19:27	01/02/15 15:02	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:02	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:02	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:02	1
Aroclor 1254	**230**		32		ug/Kg		12/30/14 19:27	01/02/15 15:02	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*59 - 130*	*12/30/14 19:27*	*01/02/15 15:02*	*1*
Tetrachloro-m-xylene	*109*		*53 - 128*	*12/30/14 19:27*	*01/02/15 15:02*	*1*

Method Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97772-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Lab Chronicle

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97772-1

Client Sample ID: IS-BASE-C
Date Collected: 12/24/14 08:54
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97772-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	ISM Prep	Increment, prep				1.0 g	258575	12/29/14 08:06	BMS	TAL DEN
Total/NA	Prep	3546			31.36 g	10 mL	258758	12/30/14 19:27	KI	TAL DEN
Total/NA	Analysis	8082		1	31.36 g	10 mL	258899	01/02/15 15:02	TDJ	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-258758/1-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258758

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1221	ND		46		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1254	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*59 - 130*	*12/30/14 19:27*	*01/02/15 12:53*	*1*
Tetrachloro-m-xylene	*98*		*53 - 128*	*12/30/14 19:27*	*01/02/15 12:53*	*1*

Lab Sample ID: LCS 280-258758/2-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			64.9	68.1		ug/Kg		105	54 - 132		
Aroclor 1260			64.9	68.7		ug/Kg		106	62 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*59 - 130*
Tetrachloro-m-xylene	*98*		*53 - 128*

Lab Sample ID: 440-97773-A-1-E MS
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		61.3	196	E F1	ug/Kg		320	54 - 132		
Aroclor 1260	ND		61.3	98.3	F1	ug/Kg		160	62 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*59 - 130*
Tetrachloro-m-xylene	*102*		*53 - 128*

Lab Sample ID: 440-97773-A-1-F MSD
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		66.0	65.7	F2	ug/Kg		100	54 - 132	100	36
Aroclor 1260	ND		66.0	87.3	F1	ug/Kg		132	62 - 129	12	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*59 - 130*
Tetrachloro-m-xylene	*86*		*53 - 128*

QC Association Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97772-1

GC Semi VOA

ISM Prep Batch: 258575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97772-1	IS-BASE-C	Total/NA	Solid	Increment, prep	
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	Increment, prep	
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Increment, prep	

Prep Batch: 258758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97772-1	IS-BASE-C	Total/NA	Solid	3546	258575
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	3546	258575
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	258575
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-258758/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 258899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97772-1	IS-BASE-C	Total/NA	Solid	8082	258758
440-97773-A-1-E MS	Matrix Spike	Total/NA	Solid	8082	258758
440-97773-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	258758
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	8082	258758
MB 280-258758/1-A	Method Blank	Total/NA	Solid	8082	258758

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97772-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-15 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-15 *
Hawaii	State Program	9	N/A	01-29-15 *
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-15 *
USDA	Federal		P330-09-00080	06-06-15
USEPA UCMR	Federal	1	CA01531	01-31-15

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-15
A2LA	ISO/IEC 17025		2907.01	10-31-15
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-15
Arkansas DEQ	State Program	6	88-0687	06-01-15
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-15
Georgia	State Program	4	N/A	01-09-15
Illinois	NELAP	5	200017	04-30-15
Iowa	State Program	7	370	12-01-14 *
Kansas	NELAP	7	E-10166	04-30-15
Louisiana	NELAP	6	02096	06-30-15
Maine	State Program	1	CO0002	03-03-15
Nevada	State Program	9	CO0026	07-31-15
New Hampshire	NELAP	1	205310	04-28-15
New Jersey	NELAP	2	CO004	06-30-15
New Mexico	State Program	6	CO00026	01-09-15
New York	NELAP	2	11964	03-31-15
North Dakota	State Program	8	R-034	01-09-15 *
Oklahoma	State Program	6	8614	08-31-15
Oregon	NELAP	10	4025	01-09-15
Pennsylvania	NELAP	3	68-00664	07-30-15
South Carolina	State Program	4	72002001	06-30-15
Texas	NELAP	6	T104704183-13-8	09-30-15
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-15
Virginia	NELAP	3	460232	06-14-15
Washington	State Program	10	C583	08-03-15
West Virginia DEP	State Program	3	354	11-30-15
Wisconsin	State Program	5	999615430	08-31-15
Wyoming (UST)	A2LA	8	2907.01	10-31-15

* Certification renewal pending - certification considered valid.

ENVIRON — CHAIN-of-CUSTODY

No 09990

☒ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

FIELD PERSON: A. Caron / B. Bauer / M. Raposo

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT MANAGER: Safaa Dergham

PROJECT LOCATION: Malibu, CA

LABORATORY: Test America

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____

SAMPLER: Amy Caron

SIGNATURE: Amy Caron

440-97772 Chain of Custody

SAMPLE I.D. NUMBER	YEAR 2014 SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
B-1C	12/24	0843	1.5	/	S	1	U	NO	X	"C" Base Samples
B-2C		0844		/						
B-3C		0845		/						Combine all samples
B-4C		0846		/						(B-1C to B-26C) into
B-5C		0846		/						one incremental sample
B-6C		0847		/						named "IS-BASE-C"
B-7C		0848		/						
B-8C		0849		/						
B-9C		0850		/						
B-10C		0850		/						
B-11C		0851		/						
B-12C		0852		/						
B-13C	↓	0853	↓	/	↓	↓	↓	↓	↓	expedite to the extent possible
TOTAL	X	X	X							

RELINQUISHED BY: Amy Caron	TIME/DATE: 1220/12/24/14	RECEIVED BY: Shafiq Nabi (COMPANY): DCS	TIME/DATE: ~~1220~~ 1220/12/24/14
RELINQUISHED BY: Shafiq Nabi	TIME/DATE: 1515/12/24/14	RECEIVED BY: (COMPANY): TAI	TIME/DATE: 1515 12/24/14
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: IR-63 INTACT: (Y) N Temp 1.5/0.8°C

IF SEALED, SEAL INTEGRITY: INTACT: Y N

H = HCL; N = HNO3; S = H2SO; U = UNKNOWN; NO = NONE; O = OTHER

FILE LOG FORMS\Chain_of_Custody

1/5/2015

ENVIRON CHAIN-of-CUSTODY

No 09989

☒ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT LOCATION: Malibu, CA

FIELD PERSON: A. Caron / B. Baker / M. Raposo

PROJECT MANAGER: Safaa Dergham

LABORATORY: TestAmerica

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____

SAMPLER: Amy Caron

SIGNATURE: Amy Caron

SAMPLE I.D. NUMBER	YEAR 2014 SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
B-14C	12/24	0854	1.5	/	S	1	U	NO	X	See pg. 1
B-15C		0853		/						
B-16C		0852		/						
B-17C		0851		/						
B-18C		0850		/						
B-19C		0849		/						
B-20C		0849		/						
B-21C		0848		/						
B-22C		0847		/						
B-23C		0846		/						
B-24C		0845		/						
B-25C		0843		/						
B-26C	↓	0844	↓	/	↓	↓	↓	↓	↓	
TOTAL	X	X	X							

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
Amy Caron	1220 / 12/24/14	Shahid NABI (COMPANY): DCS	1220 / 12/24/14
Shahid NABI	1515 / 12/24/14	man (COMPANY): TAI	1515 12/24/14
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: IR-63 INTACT: (Y) N Temp 1.5/0.8°C

IF SEALED, SEAL INTEGRITY: INTACT: Y N

O = OTHER; NO = NONE; U = UNKNOWN; S = H_2SO_4; N = HNO_3; H = HCL;

FILE: LOG FORMS\Chain_of_Custody

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97772-1

Login Number: 97772

List Source: TestAmerica Irvine

List Number: 1

Creator: Kim, Guerry

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97772-1

Login Number: 97772
List Number: 2
Creator: Conquest, Tyler W

List Source: TestAmerica Denver
List Creation: 12/27/14 11:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-97773-1
Client Project/Site: Malibu, SMMUSD

For:
ENVIRON International Corp.
18100 Von Karman Avenue
Irvine, California 92612

Attn: Safaa Dergham

Authorized for release by:
1/5/2015 1:43:43 PM
Camille Murray, Project Manager I
camille.murray@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
patty.mata@testamericainc.com

Table of Contents

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Sample Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97773-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-97773-1	IS-SIDEWALL-C	Solid	12/24/14 10:44	12/24/14 15:15

Case Narrative

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97773-1

Job ID: 440-97773-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-97773-1

Comments
No additional comments.

Receipt
The sample was received on 12/24/2014 3:15 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8º C.

GC Semi VOA
Method(s) 8082: The following samples underwent a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (440-97773-1 MS), (440-97773-1 MSD), (LCS 280-258758/2-A), (MB 280-258758/1-A), IS-SIDEWALL-C (440-97773-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) Increment, prep: The following samples were air dried and sieved per the procedure; however, the samples contained material that would not pass through the sieve: (440-97773-1 MS), (440-97773-1 MSD), IS-SIDEWALL-C (440-97773-1). This material was removed and not extracted. The material appeared to be rocks and small amount of vegetation including grass and leaves. Batch: 258575; Method: 8082 (ISM_DD_SI_SS)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97773-1

Client Sample ID: IS-SIDEWALL-C
Date Collected: 12/24/14 10:44
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97773-1
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:23	1
Aroclor 1221	ND		45		ug/Kg		12/30/14 19:27	01/02/15 15:23	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:23	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:23	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:23	1
Aroclor 1254	**92**		32		ug/Kg		12/30/14 19:27	01/02/15 15:23	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*59 - 130*	*12/30/14 19:27*	*01/02/15 15:23*	*1*
Tetrachloro-m-xylene	*102*		*53 - 128*	*12/30/14 19:27*	*01/02/15 15:23*	*1*

Method Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97773-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Lab Chronicle

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97773-1

Client Sample ID: IS-SIDEWALL-C
Date Collected: 12/24/14 10:44
Date Received: 12/24/14 15:15

Lab Sample ID: 440-97773-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	ISM Prep	Increment, prep				1.0 g	258575	12/29/14 08:06	BMS	TAL DEN
Total/NA	Prep	3546			31.28 g	10 mL	258758	12/30/14 19:27	KI	TAL DEN
Total/NA	Analysis	8082		1	31.28 g	10 mL	258899	01/02/15 15:23	TDJ	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-258758/1-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258758

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1221	ND		46		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1232	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1242	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1248	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1254	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1
Aroclor 1260	ND		32		ug/Kg		12/30/14 19:27	01/02/15 12:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*59 - 130*	*12/30/14 19:27*	*01/02/15 12:53*	*1*
Tetrachloro-m-xylene	*98*		*53 - 128*	*12/30/14 19:27*	*01/02/15 12:53*	*1*

Lab Sample ID: LCS 280-258758/2-A
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			64.9	68.1		ug/Kg		105	54 - 132		
Aroclor 1260			64.9	68.7		ug/Kg		106	62 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*59 - 130*
Tetrachloro-m-xylene	*98*		*53 - 128*

Lab Sample ID: 440-97773-1 MS
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: IS-SIDEWALL-C
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		61.3	196	E F1	ug/Kg		320	54 - 132		
Aroclor 1260	ND		61.3	98.3	F1	ug/Kg		160	62 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*59 - 130*
Tetrachloro-m-xylene	*102*		*53 - 128*

Lab Sample ID: 440-97773-1 MSD
Matrix: Solid
Analysis Batch: 258899

Client Sample ID: IS-SIDEWALL-C
Prep Type: Total/NA
Prep Batch: 258758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		66.0	65.7	F2	ug/Kg		100	54 - 132	100	36
Aroclor 1260	ND		66.0	87.3	F1	ug/Kg		132	62 - 129	12	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*59 - 130*
Tetrachloro-m-xylene	*86*		*53 - 128*

QC Association Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97773-1

GC Semi VOA

ISM Prep Batch: 258575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97773-1	IS-SIDEWALL-C	Total/NA	Solid	Increment, prep	
440-97773-1 MS	IS-SIDEWALL-C	Total/NA	Solid	Increment, prep	
440-97773-1 MSD	IS-SIDEWALL-C	Total/NA	Solid	Increment, prep	

Prep Batch: 258758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97773-1	IS-SIDEWALL-C	Total/NA	Solid	3546	258575
440-97773-1 MS	IS-SIDEWALL-C	Total/NA	Solid	3546	258575
440-97773-1 MSD	IS-SIDEWALL-C	Total/NA	Solid	3546	258575
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-258758/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 258899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-97773-1	IS-SIDEWALL-C	Total/NA	Solid	8082	258758
440-97773-1 MS	IS-SIDEWALL-C	Total/NA	Solid	8082	258758
440-97773-1 MSD	IS-SIDEWALL-C	Total/NA	Solid	8082	258758
LCS 280-258758/2-A	Lab Control Sample	Total/NA	Solid	8082	258758
MB 280-258758/1-A	Method Blank	Total/NA	Solid	8082	258758

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: ENVIRON International Corp.
Project/Site: Malibu, SMMUSD

TestAmerica Job ID: 440-97773-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-15 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-15 *
Hawaii	State Program	9	N/A	01-29-15 *
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-15 *
USDA	Federal		P330-09-00080	06-06-15
USEPA UCMR	Federal	1	CA01531	01-31-15

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-15
A2LA	ISO/IEC 17025		2907.01	10-31-15
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-15
Arkansas DEQ	State Program	6	88-0687	06-01-15
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-15
Georgia	State Program	4	N/A	01-09-15
Illinois	NELAP	5	200017	04-30-15
Iowa	State Program	7	370	12-01-14 *
Kansas	NELAP	7	E-10166	04-30-15
Louisiana	NELAP	6	02096	06-30-15
Maine	State Program	1	CO0002	03-03-15
Nevada	State Program	9	CO0026	07-31-15
New Hampshire	NELAP	1	205310	04-28-15
New Jersey	NELAP	2	CO004	06-30-15
New Mexico	State Program	6	CO00026	01-09-15
New York	NELAP	2	11964	03-31-15
North Dakota	State Program	8	R-034	01-09-15 *
Oklahoma	State Program	6	8614	08-31-15
Oregon	NELAP	10	4025	01-09-15
Pennsylvania	NELAP	3	68-00664	07-30-15
South Carolina	State Program	4	72002001	06-30-15
Texas	NELAP	6	T104704183-13-8	09-30-15
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-15
Virginia	NELAP	3	460232	06-14-15
Washington	State Program	10	C583	08-03-15
West Virginia DEP	State Program	3	354	11-30-15
Wisconsin	State Program	5	999615430	08-31-15
Wyoming (UST)	A2LA	8	2907.01	10-31-15

* Certification renewal pending - certification considered valid.

ENVIRON — CHAIN-of-CUSTODY № 11122

☑ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☑ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

PROJECT NAME / FACILITY ID: SMMUSD
PROJECT NUMBER: 04-33980M
DATE: 12/24/14
PROJECT LOCATION: Malibu, Ca.
IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #:

MSA#: WO#:
FIELD PERSON: Brian B/Amy C./Mike R.
PROJECT MANAGER: Safaa D.
LABORATORY: Test America

SAMPLER: Brian Bauer
SIGNATURE:

440-97773 Chain of Custody

SAMPLE I.D. NUMBER	YEAR 2014 SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: PCBs 8082	COMMENTS
SW-1C	12/24	1044	1	1	S	1	U	NO	X	"C" Sidewall Samples
SW-2C		1043								Combine all samples
SW-3C		1043								(SW-1C to SW-25C)
SW-4C		1042								into one incremental
SW-5C		1042								sample named
SW-6C		1041								"IS-SIDEWALL-C"
SW-7C		1041								
SW-8C		1040								
SW-9C		1040								• Expedite TAT
SW-10C		1039								to the extent
SW-11C		1039								possible.
SW-12C		1038								
SW-13C	↓	1038	↓	↓	↓	↓	↓	↓	↓	
TOTAL	X	X	X							

RELINQUISHED BY:	TIME/DATE: 1220/12/24/14	RECEIVED BY:	TIME/DATE:
RELINQUISHED BY: Shaly Abdi	TIME/DATE: 15:15/12/24/14	RECEIVED BY:	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY): DCS	TIME/DATE: 1220/12/24/14
		RECEIVED BY: (COMPANY): TAI	TIME/DATE: 15:15 12/24/14
		RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: IR-63
INTACT: (Y) N Temp 15/0.8°C

IF SEALED, SEAL INTEGRITY
INTACT: Y N

H = HCL; N = HNO3; S = H2SO; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

1/5/2015

ENVIRON — CHAIN-of-CUSTODY № 11120

☑ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☑ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: SMMUSD

PROJECT NUMBER: 04-33980M DATE: 12/24/14

PROJECT LOCATION: Malibu, Ca.

FIELD PERSON: Brian B./Amy C./Mike R.

PROJECT MANAGER: Safaa D.

LABORATORY: Test America

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: _____

SAMPLER: Brian Bauer

SIGNATURE:

SAMPLE I.D. NUMBER	YEAR 2014 SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED PCBs 8082	COMMENTS
SW-14C	12/24	1037	—	—	S	1	—	No	X	see page 1
SW-15C		1036								
SW-16C		1036								
SW-17C		1035								
SW-18C		1034								
SW-19C		1034								
SW-20C		1033								
SW-21C		1032								
SW-22C		1032								
SW-23C		1031								
SW-24C		1029								
SW-25C	↓	1029	↓	↓	↓	↓	↓	↓	↓	
(AC)										
TOTAL	X	X	X							

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
	1220 / 12/24/14	Shafi QNARI (COMPANY): DES	1220 / 12/24/14
Shafi QNARI	15:15 / 12/24/14	(COMPANY): TA!	12/24/14 15:15
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY / 24 HOURS / 48 HOURS / 72 HOURS / 5 DAYS / NORMAL

SAMPLE INTEGRITY IR-63 INTACT: (Y) N Temp 1.5/0.8 °C

IF SEALED, SEAL INTEGRITY INTACT: Y N

O = OTHER; NO = NONE; U = UNKNOWN; S = H_2SO_4; N = HNO_3; H = HCl;

FILE: LOG FORMS\Chain_of_Custody

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97773-1

Login Number: 97773

List Source: TestAmerica Irvine

List Number: 1

Creator: Kim, Guerry

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ENVIRON International Corp.

Job Number: 440-97773-1

Login Number: 97773
List Number: 2
Creator: Conquest, Tyler W

List Source: TestAmerica Denver
List Creation: 12/27/14 11:26 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix D

Data Validation Reports

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ENVIRON International Corporation
18100 Von Karman Avenue Ste. 600
Irvine, CA 92612
Attn: Ms. Safaa Dergham
CC: J. Arblaster & D. Rowe

January 21, 2015

SUBJECT: SMMUSD Malibu, Data Validation

Dear Ms. Dergham

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on January 5, 2015. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #33436:

SDG #	Fraction
440-97767-1, 440-97768-1, 440-97769-1 440-97771-1, 440-97772-1, 440-97773-1	Polychlorinated Biphenyls

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Andrew Kong
Project Manager/Senior Chemist

EM

282 pages-DL

Attachment 1

Level III/IV

LDC #33436 (Environ-Irvine / SMMUSD Malibu)

LDC	SDG#	DATE REC'D	(2) DATE DUE	PCBs (8082)																															
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	440-97767-1	01/05/15	01/19/15	0	1																														
B	440-97768-1	01/05/15	01/19/15	0	1																														
C	440-97769-1	01/05/15	01/19/15	0	1																														
D	440-97771-1	01/05/15	01/19/15	0	1																														
E	440-97772-1	01/05/15	01/19/15	0	1																														
F	440-97773-1	01/05/15	01/19/15	0	1																														
Total	T/AK			0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

33436ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: SMMUSD Malibu

Collection Date: December 24, 2014

LDC Report Date: January 19, 2015

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: EPA Level III

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 440-97767-1

Sample Identification

IS-SIDEWALL-B

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration was performed as required by the method.

The laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

SMMUSD Malibu
Polychlorinated Biphenyls - Data Qualification Summary - SDG 440-97767-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 440-97767-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 440-97767-1

No Sample Data Qualified in this SDG

LDC #: 33436A3b

SDG #: 440-97767-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1-13-15

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/24/14
II.	GC Instrument Performance Check	N	
III.	Initial calibration	A	v2
IV.	Continuing calibration/ICV	A	CCV/ICV ≤20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	%R/RPD out (440-97773-1) NO assoc. samples
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	IS-SIDEWALL-B	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19	MB280-258758	29		39	
10		20	~~MB~~	30		40	

Notes: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	SMMUSD Malibu
Collection Date:	December 24, 2014
LDC Report Date:	January 19, 2015
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	EPA Level III
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	440-97768-1

Sample Identification

IS-BASE-B

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration was performed as required by the method.

The laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

SMMUSD Malibu
Polychlorinated Biphenyls - Data Qualification Summary - SDG 440-97768-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 440-97768-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 440-97768-1

No Sample Data Qualified in this SDG

LDC #: 33436B3b **VALIDATION COMPLETENESS WORKSHEET** Date: 1-13-15
SDG #: 440-97768-1 Level III Page: 1 of 1
Laboratory: Test America, Inc. Reviewer: YM
2nd Reviewer: C

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/24/14
II.	GC Instrument Performance Check	N	
III.	Initial calibration	A	r2
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	%R/RPD out (440-97773-1) NO assoc. samples
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: soil

1	IS-BASE-B	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20	MB 280-258758	30		40	

Notes:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	SMMUSD Malibu
Collection Date:	December 24, 2014
LDC Report Date:	January 19, 2015
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	EPA Level III
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	440-97769-1

Sample Identification

IS-BASE-A

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration was performed as required by the method.

The laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

SMMUSD Malibu
Polychlorinated Biphenyls - Data Qualification Summary - SDG 440-97769-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 440-97769-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 440-97769-1

No Sample Data Qualified in this SDG

LDC #: 33436C3b **VALIDATION COMPLETENESS WORKSHEET** Date: 1-13-15
SDG #: 440-97769-1 Level III Page: 1 of 1
Laboratory: Test America, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/24/14
II.	GC Instrument Performance Check	N	
III.	Initial calibration	A	r2
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	%R/RPD out (440-97773-1) No assoc. samples
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	IS-BASE-A	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19	MB280-258758	29		39	
10		20	~~MB320-258758~~	30		40	

Notes: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: SMMUSD Malibu

Collection Date: December 24, 2014

LDC Report Date: January 19, 2015

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: EPA Level III

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 440-97771-1

Sample Identification

IS-SIDEWALL-A

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration was performed as required by the method.

The laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

SMMUSD Malibu
Polychlorinated Biphenyls - Data Qualification Summary - SDG 440-97771-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 440-97771-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 440-97771-1

No Sample Data Qualified in this SDG

LDC #: 33436D3b

SDG #: 440-97771-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1-13-15

Page: 1 of 1

Reviewer: TW

2nd Reviewer: E

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/24/14
II.	GC Instrument Performance Check	N	
III.	Initial calibration	A	r2
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	%R/RPD out (440-97773-1) No assoc. samples
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	IS-SIDEWALL-A	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20	MB280-258758	30		40	

Notes:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	SMMUSD Malibu
Collection Date:	December 24, 2014
LDC Report Date:	January 19, 2015
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	EPA Level III
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	440-97772-1

Sample Identification

IS-BASE-C

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration was performed as required by the method.

The laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

SMMUSD Malibu
Polychlorinated Biphenyls - Data Qualification Summary - SDG 440-97772-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 440-97772-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 440-97772-1

No Sample Data Qualified in this SDG

LDC #: 33436E3b

SDG #: 440-97772-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1-13-15

Page: 1 of 1

Reviewer: TM

2nd Reviewer: [illegible]

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/24/14
II.	GC Instrument Performance Check	N	
III.	Initial calibration	A	%R
IV.	Continuing calibration/ICV	A	CCV/ICV ≤20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	%R/RPD out (440-97773-1) No assoc. samples
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: SO1

1	IS-BASE-C	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20	MB280-258758	30		40	

Notes: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	SMMUSD Malibu
Collection Date:	December 24, 2014
LDC Report Date:	January 19, 2015
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	EPA Level III
Laboratory:	TestAmerica, Inc.
Sample Delivery Group (SDG):	440-97773-1

Sample Identification

IS-SIDEWALL-C
IS-SIDEWALL-CMS
IS-SIDEWALL-CMSD

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration was performed as required by the method.

The laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
IS-SIDEWALL-CMS/MSD (IS-SIDEWALL-C)	Aroclor-1016	320 (54-132)	-	100 (≤36)	Aroclor-1016 Aroclor-1221 Aroclor-1232	J (all detects) J (all detects) J (all detects)	A
IS-SIDEWALL-CMS/MSD (IS-SIDEWALL-C)	Aroclor-1260	160 (62-129)	132 (62-129)	-	Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	J (all detects) J (all detects) J (all detects) J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

SMMUSD Malibu
Polychlorinated Biphenyls - Data Qualification Summary - SDG 440-97773-1

SDG	Sample	Compound	Flag	A or P	Reason
440-97773-1	IS-SIDEWALL-C	Aroclor-1016 Aroclor-1221 Aroclor-1232	J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD)
440-97773-1	IS-SIDEWALL-C	Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)

SMMUSD Malibu
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 440-97773-1

No Sample Data Qualified in this SDG

SMMUSD Malibu
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 440-97773-1

No Sample Data Qualified in this SDG

LDC #: 33436F3b
SDG #: 440-97773-1
Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 1-13-15
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/24/14
II.	GC Instrument Performance Check	N	
III.	Initial calibration	A	r2
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	IS-SIDEWALL-C	11		21		31	
2	IS-SIDEWALL-CMS	12		22		32	
3	IS-SIDEWALL-CMSD	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20	MB 280-258758	30		40	

Notes:

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPA SW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. oxy-Chlordane
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Mirex
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes:_____

LDC #: 33436F3b

Reviewer: [signature]

2nd Reviewer: [signature]

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?

(Y) N N/A Was a MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		2/3	V	320 (54-132)	( )	100 (36)	1	J dets/A
		↓	BB	160 (62-129)	132 (62-129)	( )	↓	↓
				( )	( )	( )		(AA = Det)
				( )	( )	( )		(V, W, X, Y, Z, BB = ND)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

Appendix E

Non-Hazardous Manifests

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	714-362-5791	CCL - 2160 - 001

GENERATOR

5. Generator's Name and Mailing Address

Santa Monica - Malibu Unified School District
1651 Sixteenth Street, Santa Monica, California 90404
Generator's Phone: (310) 450-8338 Attn: Terry Kamibayashi

Generator's Site Address (if different than mailing address)

Malibu High School
30215 Morning View Drive, Malibu, California 90265

6. Transporter 1 Company Name: Athens Services (888) 336-6100 — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address — U.S. EPA ID Number:

Chiquita Canyon Landfill
29201 Henry Mayo Drive, Castaic, California 91384
Facility's Phone: (661) 257-3655

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Hazardous Soil	001	CM	10	Y	8.86 Tons
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Soil: 99 -100%
PCBs: < 1.5 ppm
Debris: 0 - 1%
CCL Profile No.: CCL-14-243 Acct No.: 1179 Rule 1166 VOC Soil: Yes ___ No X
Wear appropriate Personal Protective Equipment as necessary
Wt# 01-00682300

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: EDUARDO SOLIZ (on behalf of SMMUSD) — Signature — Month 12 Day 24 Year 14

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PABLO MENDEZ — Signature — Month 12 Day 24 Year 14

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

TRANSPORTER #2

(661)257-3655
CHIQUITA CANYON LANDFILL
29201 Henry Mayo Dr
Castaic, CA 91384

Weighed: Rosa L
Deposit: Rosa L
Bill TO: 1179
INNOVATIVE CONST. SOLUTIONS

Vehicle ID: ICS
Reference: 14-243
PO Number: CCI-2160-001

Origin: SANTA MONICA
DATE IN: 12/24/2014 TIME IN: 12:15:03
DATE OUT: 12/24/2014 TIME OUT: 13:08:31

INBOUND TICKET Number: 01-00882300

SCALE 2 GROSS WT.	47600	LB
SCALE 1 TARE WT.	29880	LB
NET WEIGHT	17720	LB

Qty	Description	Amount
8.86	Soil - Non Hazardous	

X PABLO

(Driver Signature)

This is to certify that this load does not contain any hazardous materials, medical waste or liquids of any type.

WEIGHMASTER CERTIFICATE:

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code), administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	714-362-5791	CCL - 2160 - 007

GENERATOR

5. Generator's Name and Mailing Address

Santa Monica - Malibu Unified School District
1651 Sixteenth Street, Santa Monica, California 90404
Generator's Phone: (310) 450-8338 Attn: Terry Kamibayashi

Generator's Site Address (if different than mailing address)

Malibu High School
30215 Morning View Drive, Malibu, California 90265

6. Transporter 1 Company Name

Athens Services (888) 336-6100

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Chiquita Canyon Landfill
29201 Henry Mayo Drive, Castaic, California 91384
Facility's Phone: (661) 257-3655

U.S. EPA ID Number

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Hazardous Soil	001	CM	10	Y	8.05 Tons
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Soil: 99 -100%
PCBs: < 1.5 ppm
Debris: 0 - 1%
CCL Profile No.: CCL-14-243 Acct. No.: 1179 Rule 1166 VOC Soil: Yes___ No X
Wear appropriate Personal Protective Equipment as necessary
Wt# 01-00682301

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Edwards Suzuki (on behalf of SMMUSD) Signature: [signature] Month: 12 Day: 24 Year: 14

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Pablo mendez Signature: [signature] Month: 12 Day: 24 Year: 14

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Signature: [signature] Month: 12 Day: 24 Year: 14

169-BLC-O 6 10498 (Rev. 9/09)

TRANSPORTER #2

(661)257-3655
CHIQUITA CANYON LANDFILL
29201 Henry Mayo Dr
Castaic, CA 91384

Weighed: Rosa L
Deposit: Rosa L
BILL TO: 1179
INNOVATIVE CONST. SOLUTIONS

Vehicle ID: 165
Reference: 14-243
PO Number: CCL-2100-002

Origin: MALIBU
DATE IN: 12/24/2014 TIME IN: 12:17:22
DATE OUT: 12/24/2014 TIME OUT: 13:10:25

INBOUND TICKET Number: 01-00682301

SCALE 2 GROSS WT.	30590	LB
SCALE 1 TARE WT.	14480	LB
NET WEIGHT	16100	LB

Qty	Description	Amount
8.05	Soil - Non Hazardous	

X

(Driver Signature)

This is to certify that this load does not contain any hazardous materials, medical waste or liquids of any type.

WEIGHMASTER CERTIFICATE:

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code), administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	714-362-5791	CCL - 2160 - 03

GENERATOR

5. Generator's Name and Mailing Address

Santa Monica - Malibu Unified School District
1651 Sixteenth Street, Santa Monica, California 90404
Generator's Phone: (310) 450-8338 Attn: Terry Kamibayashi

Generator's Site Address (if different than mailing address)

Malibu High School
30215 Morning View Drive, Malibu, California 90265

6. Transporter 1 Company Name: Athens Services (888) 336-6100 — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address — U.S. EPA ID Number:

Chiquita Canyon Landfill
29201 Henry Mayo Drive, Castaic, California 91384
Facility's Phone: (661) 257-3655

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Hazardous Soil	001	CM	10	Y	5.65 Tons
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Soil: 99 -100%
PCBs: < 1.5 ppm
Debris: 0 - 1%
CCL Profile No.: CCL-14-243 Acct. No.: 1179 Rule 1166 VOC Soil: Yes ___ No X
Wear appropriate Personal Protective Equipment as necessary
Wt# 01-00682543

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Athens Svcs (on behalf of SMMUSD) — Signature — Month 12 — Day 26 — Year 14

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jose J. Salcido — Signature: Jose J. Salcido — Month 12 — Day 26 — Year 14

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Landey — Signature — Month 12 — Day 26 — Year 14

(1)

TRANSPORTER #2

(661)257-3656
CHIQUITA CANYON LANDFILL
29201 Henry Mayo Dr
Castaic, CA 91384

Weighed: D Landeros
Deposit: D Landeros
BILL TO: 1179
INNOVATIVE CONST. SOLUTIONS

Vehicle ID: ICS-
Reference: 14243
PO Number: CCL 2160

Origin: MALIBU
DATE IN: 12/26/2014 TIME IN: 08:53:36
DATE OUT: 12/26/2014 TIME OUT: 09:23:58

INBOUND TICKET Number: 01-00682543

SCALE 2 GROSS WT.	40880	LB
SCALE 1 TARE WT.	29580	LB
NET WEIGHT	11300	LB

Qty	Description	Amount
5.65	Soil - Non Hazardous	

X Jose J. Salcido

(Driver Signature)

This is to certify that this load does not contain any hazardous materials, medical waste or liquids of any type.

WEIGHMASTER CERTIFICATE:

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code), administered by the Division of Measurement Standards of the California Department of Food and Agriculture.