

August 5, 2026

Joel Duarte
Director of Purchasing and Warehouse
Hacienda La Puente Unified School District
15959 East Gale Ave
City of Industry, California 91745

**SUBJECT: Soil Sampling Report
Palm Elementary School
14740 East Palm Avenue, Hacienda Heights, California
Los Angeles, California
Langan Project No. 721066701**

Dear Mr. Duarte:

Langan CA, Inc. (Langan) is pleased to present this *Soil Sampling Report* (Report) to the Hacienda La Puente Unified School District (HLPUSD, Client) regarding environmental soil sampling at Palm Elementary School located at 14740 East Palm Avenue in Hacienda Heights, California (Site; Figure 1). This Report documents the sampling procedures and summarizes the analytical results for the soil sampling conducted at the Site. This Report also provides a preliminary evaluation of whether impacts identified at the Site have potentially originated from the nearby Ecobat Resources (Ecobat) battery recycling facility.

BACKGROUND

Site Description

The Site is approximately 11.6 acres and is identified by the Los Angeles County Assessor's Parcel Number (APN) 822-000-99-00. The Site is currently operated as a public elementary school and consists of developed facilities including classroom buildings, administrative structures, paved areas, and outdoor recreational spaces. The Site is in a predominantly residential area bounded by East Palm Avenue to the north and residential properties to the east, south, and west.

Based on information provided by the Client, the Site is undergoing a planned classroom renovation project. Previous shallow soil testing at the Site was conducted by GSI Environmental Inc. (GSI) and Roux Associates, Inc. (Roux) in response to community concerns that the area may have been affected by the Ecobat (formerly Quemetco) battery recycling facility, located approximately 0.82 miles to the north of the Site.

Additional soil sampling and testing were conducted at the Site to further characterize shallow soil in areas with elevated lead and arsenic concentrations and to evaluate whether those impacts may be related to operations at the Ecobat facility. It is Langan's understanding that HLPUSD has mitigated soil impacts at the Site via excavation and off-Site disposal, as necessary based on the results of prior environmental investigations.

ENVIRONMENTAL DOCUMENT REVIEW

As part of this evaluation, Langan reviewed publicly available documents related to the Site and the nearby Ecobat facility, as well as investigation reports for the Site provided by the Client. The findings from this review are summarized below.

Langan also contracted the third-party provider LightBox Environmental Data Resources to search environmental regulatory databases and provide historical Site records. The database search included select federal, state, local and tribal standard source environmental databases. Online EnviroStor and GeoTracker databases, operated by the California Department of Toxic Substances Control (DTSC) and the State of California Water Resources Control Board (SWRCB), respectively, were also searched for documents related to the Site and the nearby Ecobat facility.

Langan submitted Freedom of Information Act (FOIA) requests to supplement environmental database listing information. The FOIA requests were submitted to the DTSC, Water Board, Los Angeles Department of Public Health (LADPH), Los Angeles Department of Public Works (LADPW), and South Coast Air Quality Management District (SCAQMD).

Each of the documents reviewed by Langan are briefly summarized in Attachment A.

Palm Elementary – Environmental Database Review Documents

The Site was historically occupied by citrus orchards from at least 1928 to 1954, followed by the construction of the existing school buildings between 1954 and 1964. Additional improvements include construction of two eastern buildings from 2002 to 2005 and a southwestern building between 2016 and 2020.

The surrounding properties were historically cultivated as citrus orchards from at least 1928 through 1954, followed by the construction of the existing residential neighborhoods between 1954 and 1964. Historical citrus orchard operations at the site and surrounding properties likely included the use of agricultural pesticides and herbicides, noted to include lead arsenate during the period of operation. The use of lead arsenate as a pesticide is a known source of lead and arsenic impacts to shallow soils.

A Hazardous Waste Tracking System (HWTS) database listing referenced asbestos-containing waste that was removed from the property in 2016. Based on the age of the original structures, there is a potential for environmental concerns related to the presence of lead-based paint and additional asbestos-containing building materials associated with historical construction practices.

Ecobat Facility – Historical Reports and Related Documents

The Ecobat facility occupies approximately 24 acres in an area zoned for heavy industrial use. The nearest residential properties are approximately 560 feet south of the facility. Lead processing and recycling activities have been conducted at the facility since 1959. The facility operated under Resource Conservation and Recovery Act (RCRA) interim status from 1983 to 2005 and has operated under a RCRA Part B permit since 2005 for hazardous waste storage, battery storage, and a containment building. Current operations at the facility include processing spent lead-acid batteries and other lead scrap into lead metal and lead alloys.

Several environmental investigations and emergency interim measures (EIMs) have been conducted on and near the facility since 1991. Environmental investigations have been conducted by the DTSC in 1991, 2004, and 2012 and by WSP in 2005, 2016, 2017, and 2021. EIMs were conducted in 2004, 2013, and 2020 to address potential exposures to lead in soils that included capping impacted areas with asphalt and removing lead-containing soils within the perimeter of the Ecobat facility.

Contaminants of potential concern (COPCs) associated with operations at the Ecobat facility have been identified as metals including lead (the primary COPC), arsenic, antimony, cadmium, hexavalent chromium, copper, manganese, mercury, tellurium, zinc, polycyclic aromatic hydrocarbons (PAHs), and dioxins. Environmental investigations of soil at the Ecobat facility have identified impacts to soil that include arsenic, cadmium, and lead, concentrations of PAHs and dioxins were rarely detected and generally at low levels.

Based on environmental investigations and EIMs, the DTSC requested additional investigation activities in 2015 to evaluate deposition of metals and other COPCs related to operations at the Ecobat facility. Investigations into the 0.25-mile and 1-mile areas surrounding the Ecobat facility were conducted in 2016 and 2020, respectively. Following these investigations DTSC identified several data gaps in the investigations and requested additional shallow soil sampling and analysis of 14 areas surrounding the Ecobat facility, including at Palm Elementary School.

GSI Environmental Inc. – Soil Sampling Memorandum – August 2025

GSI prepared a memorandum dated August 1, 2025, summarizing investigation activities at the Site, including shallow soil sampling procedures and results for selected metals.

A total of 35 discrete soil samples were collected at depths of 6-inches below ground surface (bgs) to avoid contamination with surficial plant and organic materials. Between two to four samples were collected within 13 sampling zones established by GSI. Discrete samples collected within each zone were consolidated and homogenized prior to laboratory analysis. Each of the consolidated samples were analyzed for metals including lead, arsenic, cadmium, manganese, and antimony. The concentrations were compared to DTSC Screening Levels (SLs)¹ or United

¹California Department of Toxic Substances Control (DTSC) Screening Level for Residential Soil, Lower of Cancer and Noncancer Values, dated April 2025.

States Environmental Protection Agency (USEPA) Residential Regional Screenings Levels (RSLs)² where DTSC SLs were unavailable.

Based on the report, the concentrations of lead, cadmium, manganese, and antimony did not exceed the DTSC SLs and USEPA RSLs. It was concluded that arsenic concentrations exceeded the screening level set by the DTSC, but they were less than 12 milligrams per kilogram (mg/kg) which was reported as the established background concentration for arsenic in California. It was concluded that there was no expected risk of exposure to metals at the Site³.

Roux – Delineation Soil Sampling Report – May 2026

Roux prepared a Delineation Soil Sampling Report, dated May 29, 2026, that summarizes shallow soil sampling procedures and results conducted at the site over three sampling events between September 2025 and February 2026. The purpose of these sampling events was to delineate metals, specifically lead and arsenic, at the Site.

During the September 2025 sampling event, Roux analyzed a total of 50 soil samples for the selected metals arsenic, lead, antimony, cadmium, and manganese from within the 13 zones previously established by GSI (Zones 1 through 13), as well as five additional zones along the drip lines of buildings on site (Zones 14 through 18). Concentrations of lead exceeded the DTSC SL in two of the samples analyzed. Concentrations of arsenic exceeded the DTSC SL and Southern California-specific background level in six of the samples analyzed.

Roux remobilized in December 2025 and February 2026 and collected a total of 96 step-out soil samples from 30 soil boring locations at depths of 0.5, 1.0, 3.0, and 5.0 feet bgs. If concentrations of lead or arsenic were above the applicable SLs, Roux would request the laboratory to run the next subsequent step-out sample. A total of 39 samples were ultimately analyzed for either lead or arsenic.

Results indicated that concentrations of lead exceeded the DTSC SL in one sample within Zone 1 and in one sample within Zone 11. Concentrations of arsenic exceeded its DTSC SL and Southern California-specific background concentration in four samples within Zone 9, 11 samples within Zone 13, and two samples within Zone 14. No other metal concentrations exceeded their respective DTSC SL.

Results indicated that arsenic-impacted soils were vertically and laterally delineated to concentrations below the Southern California-specific screenings levels. Lead impacted soils were similarly delineated vertically and laterally to concentrations below the DTSC residential screening levels.

² United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs), Resident Soil with THQ 1.0 and TR 1E-6, dated November 2024.

³ DTSC HERO HHRA Note Number 11 – Southern California Ambient Arsenic Screening Level, dated December 2020.

SOIL SAMPLING

Field Coordination

Roux was conducting excavation activities at the Site concurrently with Langan's soil sampling activities and was responsible for submitting the California 811 DigAlert ticket and clearing the sampling areas before work began. Previous consultants, including GSI and Roux, confirmed that utility operators with facilities near the Site had responded and marked their utilities accordingly. Therefore, potential subsurface utility conflicts had been previously identified, and no additional utility clearance was deemed necessary for this investigation.

Soil Sampling

Langan collected shallow soil samples from five locations at the Site, as shown on Figure 2. One sample was collected from each of the five zones where lead or arsenic concentrations exceeded residential screening levels during previous investigations conducted by Roux (Zones 1, 9, 11, 13, and 14). Sample locations were selected to be immediately adjacent to the samples with the highest lead or arsenic concentrations within each zone identified during prior sampling. Roux field staff were present during sampling and confirmed the sample locations using a handheld global positioning system (GPS) unit. Four soil samples (LSB-1-1, LSB-9-3, LSB-11-2, and LSB-14-2) were collected from 3 inches below ground surface (bgs), and one soil sample (LSB-13-3-A-0.5) was collected from 6 inches bgs.

At each location, surface material was cleared as necessary before sampling, and discrete soil samples were collected from the target depth using a clean hand trowel. Langan collected samples from undisturbed soil directly adjacent to the corresponding Roux sample locations. The hand trowel was decontaminated before first use and between sampling locations by scrubbing with an Alconox and water solution, followed by two rinses with distilled water. Samples were placed directly into laboratory-provided glassware and immediately stored in an ice-filled cooler.

Analytical Testing

All soil samples were delivered under chain-of-custody control to Eurofins Calscience, Inc. (Eurofins), a California Department of Public Health certified analytical laboratory in Tustin, California.

Each of the five samples were analyzed for the following:

- California Assessment Manual (CAM) 17 metals and aluminum, bismuth, calcium, magnesium, manganese, potassium, and tin by USEPA Method 6010D;
- Mercury by USEPA Method 7471B;
- Tellurium by USEPA Method 6020B;
- Hexavalent Chromium by USEPA Method 7196A;
- Polycyclic Aromatic Hydrocarbons (PAHs) by USEPA Method 8270E SIM; and
- Dioxins/furans by USEPA Method 8290A.

The certified analytical results and chain-of-custody records are included in Attachment B.

Analytical Results

The laboratory analytical results for the soil samples are summarized in Tables 1 through 3 and analytical results are discussed below. Soil results were compared to USEPA RSLs, San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screenings levels (ESLs)⁴, and DTSC SLs for Residential Soil.

Arsenic was detected at concentrations above the laboratory reporting limit in all five of the soil samples analyzed at concentrations ranging from 6.41 milligrams per kilogram (mg/kg) to 13.5 mg/kg. Arsenic was detected at concentrations above the Southern California background concentration of 12 mg/kg in Samples LSB-9-3 (13.5 mg/kg) and LSB-14-2 (13.3 mg/kg). All other concentrations of arsenic detected in soil samples were below the naturally-occurring background arsenic concentration in Southern California.

No other metals were detected in the analyzed soil samples at concentrations exceeding their applicable screening levels.

A total of six PAHs (2-methylnaphthalene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, fluoranthene, and pyrene) were detected above the laboratory reporting limits in samples analyzed. None of the PAH detections exceeded their respective USEPA RSL, RWQCB ESL, or DTSC SL.

A total of four discrete dioxins and furans (1,2,3,4,5,6,7,8-HpCDD, 1,2,3,4,5,6,7,8-HpCDF, OCDD, and OCDF) were detected above laboratory screening limits in the samples analyzed. Sum totals of seven dioxin and furan congeners (Total TCDD, Total TCDF, Total PeCDF, Total HxCDD, Total HxCDF, Total HpCDD, and Total HpCDF) were also detected above laboratory screening limits in the samples analyzed. None of the discrete or total dioxin and furan detections exceeded their respective USEPA RSL, RWQCB ESL, or DTSC SL.

DISCUSSION OF RESULTS AND CONCLUSIONS

Concentrations of metals, PAHs, and dioxins and furans detected in shallow soil at the Site as part of the subject investigation were below applicable residential screening levels, with the exception of arsenic in two samples which were only marginally above background concentrations. Concentrations of metals in soil samples collected and analyzed by Langan are consistent with, albeit generally lower than, concentrations from previous investigations at the Site conducted by GSI and Roux.

Across the shallow soil investigations conducted by GSI, Roux, and Langan, metals concentrations exceeding residential screening levels do not indicate widespread or consistent

⁴ San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs), Direct Exposure Human Health Risk Levels, Residential, Lower of Cancer Risk and Noncancer Hazard values, dated July 2025 – revised January 2026.

impacts throughout the site, rather localized impacts to shallow soil that appear to be delineated both laterally and vertically. It is our understanding that soil containing elevated metals concentrations have been selectively excavated from the Site and disposed of appropriately by others, following sampling conducted by Langan.

Results of samples collected at the Site were compared to those of environmental investigations and studies conducted at and surrounding the Ecobat facility. Specifically, comparisons were made with respect to metals including lead (the dominant COPC), arsenic, antimony, cadmium, hexavalent chromium, copper, manganese, mercury, tellurium, zinc, PAHs, and dioxins and furans.

Langan compared the ratio of arsenic to lead in soils from samples both at the Site and in the vicinity of the Ecobat facility. Arsenic and lead concentrations at the Site were not generally consistent with the distribution of these metals in samples collected at and immediately surrounding the Ecobat facility (both in overall magnitude and in ratio to each other). Samples analyzed from the Ecobat facility contained concentrations of lead several orders of magnitude higher than concentrations of arsenic (ESC, 2006; DTSC, 2012c; DTSC, 2013). Concentrations of lead and arsenic were generally within the same order of magnitude in samples collected at the Site. The magnitude of lead and arsenic concentrations (and the ratio between the two) were generally consistent with the ambient (background) conditions determined for nearby residential properties (WSP USA, Inc., October 2018).

An additional metal, antimony, is a known byproduct of the smelting process used in battery recycling.⁵ One method to determine if lead contamination originated from a battery recycling operation is to evaluate antimony concentrations in lead-containing soil samples as an "alloy marker." An investigation of aerial depositions around the perimeter of the Ecobat facility, conducted by the DTSC, identified a clear correlation between lead and antimony concentrations, where increasing lead concentrations generally correspond to increasing antimony concentrations, suggesting the metals originated at the Ecobat facility (DTSC, 2013). Antimony was not detected above laboratory reporting limits in any of the samples analyzed from the Site. Therefore, antimony cannot be used as an alloy marker to trace lead impacts identified at the Site to the Ecobat facility operations.

In soil samples collected at the Site, several PAHs were detected at trace concentrations above laboratory reporting limits (ESC, 2006 and Tetra Tech, 2022). However, the same PAHs were generally not detected above laboratory reporting limits in samples collected from the Ecobat facility. Therefore, the PAHs present in soil at the Site are not likely to have originated from the Ecobat facility.

Samples collected from the Ecobat facility did not contain concentrations of dioxins (as TCDD) in soil samples above laboratory method detection limits (ESC, 2006). DTSC, 2013). One sample collected by the DTSC around the perimeter of the Ecobat facility did contain detectable concentrations of dioxins and furans that exceeded the applicable toxicity equivalent screening

⁵ <https://associationofbatteryrecyclers.com/lead-battery-recycling/>

level (DTSC, 2012a and DTSC, 2013). In the perimeter sample analyzed by DTSC, 16 discrete dioxin and furan congeners were detectable above laboratory reporting limits. Comparatively, in samples collected at the Site only four discrete dioxin and furan congeners were identified above laboratory reporting limits, at significantly lower concentrations. The lack of detectable dioxins (as TCDD) in samples collected at the Ecobat facility, in addition to a relatively different dioxin congener distribution in the samples collected from the Ecobat facility perimeter and the Site indicate that dioxins and furans present in the soil at the Site are not likely to have originated from the Ecobat facility.

At the request of the Client, Langan considered the use of lead isotope testing as a method to “fingerprint” lead identified on Site to match lead originating at the Ecobat facility. Testing for the individual isotopes of lead can be used for fingerprinting, particularly to identify distinct isotope ratios at mining operations and ore smelters. Generally, lead originating from a specific geographic or geologic region will have a unique ratio of stable lead isotopes (^{204}Pb , ^{206}Pb , ^{207}Pb , and ^{208}Pb). Therefore, lead from a primary smelter processing a single source of material (ore) leaves a unique and constant isotopic fingerprint that makes it easy to distinguish from other industrial or vehicular emissions. However, secondary smelters such as the recycling operations at Ecobat derive lead from lead-acid batteries and not from a uniform source material. Accordingly, Ecobat is unlikely to produce a specific, consistent isotopic signature that can be reliably used in fingerprinting. On this basis, testing of stable lead isotopes was not included in this scope of work.

Based on our evaluation, Langan did not identify evidence that shallow soil conditions at the Site have been significantly impacted by operations at the nearby Ecobat battery recycling facility. Further statistical analysis and/or additional soil investigation is not currently proposed. Localized lead and arsenic impacts encountered at the Site are consistent with established ambient background concentrations throughout the area. Lead and arsenic may also be present in Site soils due to historical agricultural operations and the use of lead-based paint in historical construction materials.

In a letter dated July 15, 2024, DTSC requested that Ecobat conduct additional near-surface soil investigations at 14 off-site areas, including Palm Elementary School. Additional investigations requested by the DTSC will include shallow soil sampling and analysis for CAM 17 metals, excluding mercury and including tin.

DISCLAIMER

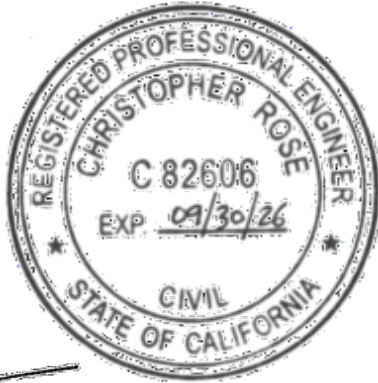
The environmental conditions that Langan interprets to exist between sampling points will differ from those that actually exist. The user of this report recognizes that actual conditions will vary from those encountered at the locations where sampling, surveys, observations, or explorations are made by Langan and that the data, interpretation, and recommendations of Langan are based solely on the information available. Furthermore, the user of this report recognizes that passage of time, natural occurrences, and/or direct or indirect human intervention at or near the Site may substantially alter discovered conditions. Langan shall not be responsible for interpretations by others of the information it develops or provides to the user of this report.

If you have any questions or need any information clarified, please call.

Sincerely,
Langan CA, Inc.



Chris Rose, PE
Associate



Daniel Parsons, PE
Project Engineer



Rory Johnston, GE, PE
Managing Principal

Attachments: Figure 1 – Site Location Map
Figure 2 – Site Plan with Boring Location

Table 1 – Soil Analytical Results – Polycyclic Aromatic Hydrocarbons
Table 2 – Soil Analytical Results – Metals
Table 3 – Soil Analytical Results – Dioxins and Furans

Attachment A – Summary of Record Review
Attachment B – Laboratory Analytical Results

REFERENCES

California Department of Health Services, 1987. Remedial Action Order, Quemetco, Inc. and RSR Corporation, August 17.

Department of Toxic Substances Control (DTSC), 1992. Off-Site Sampling Report, March.

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DTSC, 2012c. Environmental Chemistry Laboratory, Laboratory Report – Total Metals, August 9.

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DTSC, 2018a. DTSC Hotspots Analysis and Reporting Program (HARP) Air Dispersion Model 2.0 for the Quemetco Facility at 720 S. 7th Avenue, City of Industry, California, December 14.

DTSC, 2018b. DTSC Review of and Determinations Regarding RCRA Facility Investigation Report – Perimeter Areas of Quemetco, Inc. Facility, 720 S. 7th Avenue, City of Industry, California, December 17.

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Roux Associates, Inc., 2026. Delineation Soil Sampling Report, Palm Elementary School, 14740 Palm Avenue, Hacienda Heights, California, May 29.

Tetra Tech, 2022. Final Human Health and Ecological Risk Assessment (HHERA) of RFI Open Areas Soil, October.

U.S. Environmental Protection Agency (USEPA), 1988. Consent Decree and Order Thereon, United States of America v. Quemetco, Inc. and RSR Corporation, January 6.

WSP USA, Inc. (WSP), 2018. Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report, Perimeter Area of Quemetco, Inc., Facility City of Industry, California, October 23.

WSP, 2020. Current Conditions Report, Ecobat Resources California, Inc. (formerly Quemetco Inc., August 10.

FIGURES

— — — — SITE LIMITS

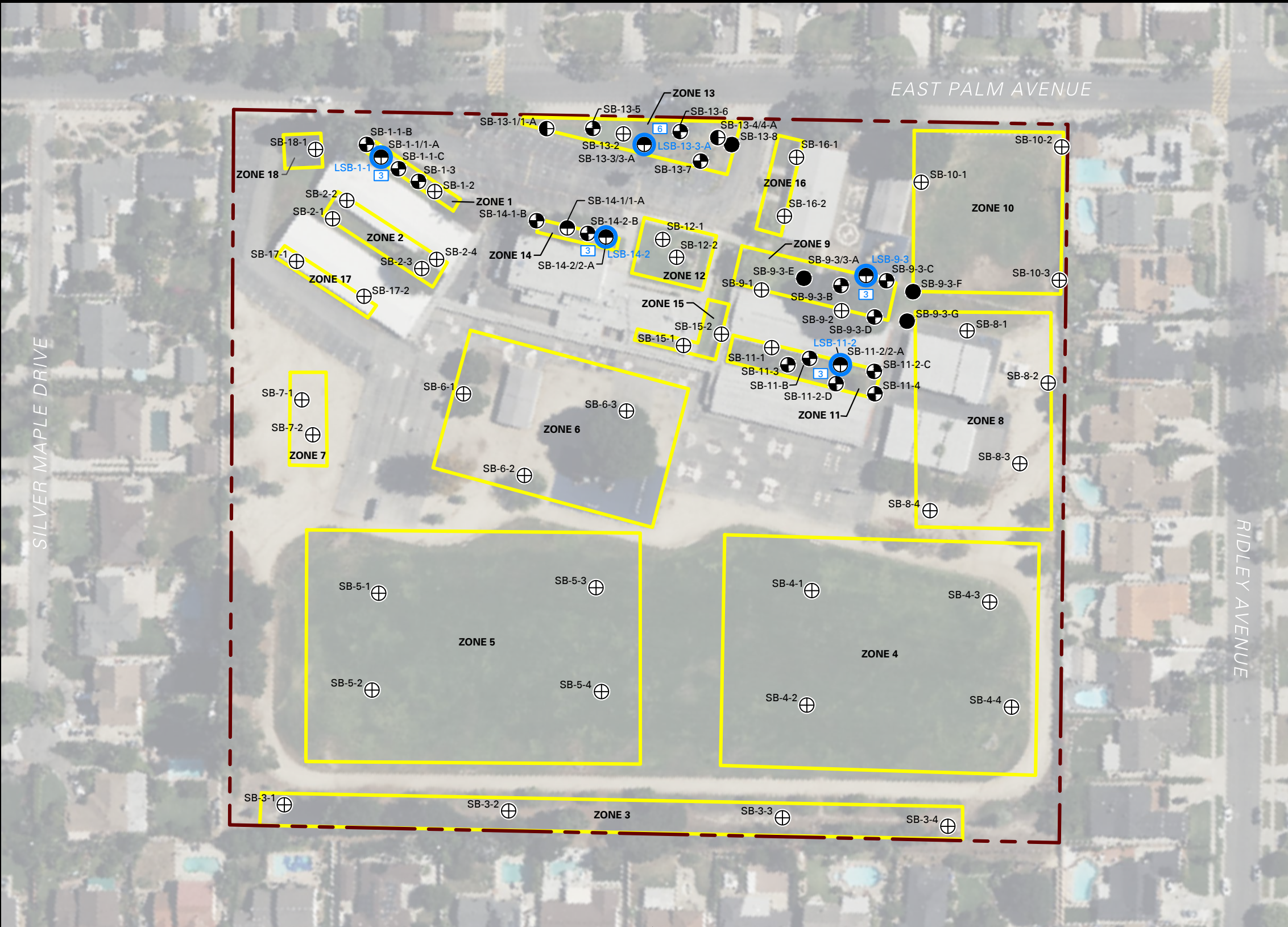


REFERENCE: USGS 7.5-MINUTE TOPOGRAPHIC MAP OF THE BALDWIN PARK, CA QUADRANGLE (2018).

T:949.561.9200 F: 949.561.9201 www.langan.com

LOS ANGELES COUNTY CALIFORNIA

1



LEGEND:

APPROXIMATE SITE LIMITS

APPROXIMATE SAMPLING ZONES

LSB-1-1
3

SURFACE SOIL SAMPLE LOCATION (LANGAN, JUNE 9, 2026)
DEPTH IN INCHES

SB-1-2

PRIOR SURFACE SOIL SAMPLE LOCATION
(ROUX, SEPTEMBER 24, 2025)

SB-1-1-B

PRIOR SURFACE SOIL SAMPLE LOCATION
(ROUX, DECEMBER 2, 2025)

SB-9-3-E

PRIOR SURFACE SOIL SAMPLE LOCATION
(ROUX, FEBRUARY 24, 2026)

SB-13-1/1-A

PRIOR SURFACE SOIL SAMPLE LOCATION
(ROUX, DECEMBER 2, 2025 AND FEBRUARY 24, 2026)

SB-1-1/1-A

PRIOR SURFACE SOIL SAMPLE LOCATION
(ROUX, SEPTEMBER 24, 2025 AND DECEMBER 2, 2025)

NOTES:

1. BACKGROUND AERIAL IMAGE REFERENCED FROM BING MAPS ON JUNE 25, 2026.

2. PRIOR SURFACE SOIL SAMPLE LOCATIONS REFERENCED FROM "SOIL SAMPLE AND DELINEATION SOIL BORINGS" BY ROUX ASSOCIATES, INC., DATED MARCH 17, 2026.

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LANGAN Langan CA, Inc. 18575 Jamboree Road Suite 150 Irvine, CA 92612 T: 949.561.9200 F: 949.561.9201 www.langan.com	Project PALM ELEMENTARY SCHOOL 14740 EAST PALM AVENUE HACIENDA HEIGHTS LOS ANGELES COUNTY CALIFORNIA	Figure Title SITE PLAN	Project No. 721066701	Figure No. 2
			Date JULY 2026	
			Scale AS SHOWN	
			Drawn By CA	

TABLES

Table 1
Soil Analytical Results - Polycyclic Aromatic Hydrocarbons
Palm Elementary School
Hacienda Heights, California

Analyte				Polycyclic Aromatic Hydrocarbons																	
				1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)Perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
CAS Number				90-12-0	91-57-6	83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3	206-44-0	86-73-7	193-39-5	91-20-3	85-01-8	129-00-0
EPA RSL Residential Soil				0.18	239.1	3,586	NS	17,932	1.13	0.11	1.15	NS	11.48	114.82	0.11	2,391	2,391	1.15	2.01	NS	1,793
RWQCB Soil Direct Exposure Residential ESL				NS	240	3,600	NS	18,000	1.1	0.11	1.1	NS	11	110	0.028	2,400	2,400	1.1	2	NS	1,800
DTSC Residential Soil				0.18	190	3,600	NS	18,000	1.1	0.11	1.1	NS	11	110	0.028	2,400	2,400	1.1	2	NS	1,800
Location	Sample Name	Sample Date	Sample Depth	mg/kg																	
LSB-1-1	LSB-1-1	06/09/2026	0.25	<0.022	0.030	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022
LSB-9-3	LSB-9-3	06/09/2026	0.25	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	0.048	<0.022	<0.022	<0.022	0.032	<0.022	<0.022	<0.022	<0.022	0.067
LSB-11-2	LSB-11-2	06/09/2026	0.25	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	0.033	0.021	<0.021	0.025	<0.021	0.024	<0.021	<0.021	<0.021	<0.021	0.026
LSB-13-3-A	LSB-13-3-A-0.5	06/09/2026	0.5	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
LSB-14-2	LSB-14-2	06/09/2026	0.25	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022

Table 2
Soil Analytical Results - Metals
Palm Elementary
Hacienda Heights, California

Analyte				Metals																									
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Bismuth	Cadmium	Calcium	Chromium, Hexavalent	Chromium, Total	Cobalt	Copper	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Tellurium	Thallium	Tin	Vanadium	Zinc
CAS Number				7429-90-5	7440-36-0	7440-38-2	7440-39-3	7440-41-7	7440-69-9	7440-43-9	7440-70-2	18540-29-9	7440-47-3	7440-48-4	7440-50-8	7439-92-1	7439-95-4	7439-96-5	7439-97-6	7439-98-7	7440-02-0	7440-09-7	7782-49-2	7440-22-4	13494-80-9	7440-28-0	7440-31-5	7440-62-2	7440-66-6
EPA RSL Residential Soil				77,361	31.28	0.68	15,305	155.57	NS	7.14	NS	0.95	NS	23.4	3,129	200	NS	1,829	7.12	391.02	1,400	NS	391.07	391.07	NS	0.78	46,929	393.11	23,464
RWQCB Soil Direct Exposure Residential ESL				NS	31	0.032	15,000	16	NS	7.1	NS	0.3	NS	23	3,100	80	NS	NS	0.67	390	820	NS	390	390	NS	0.78	NS	390	23,000
DTSC Residential Soil				NS	NS	0.032	NS	16	NS	7.1	NS	0.3	NS	NS	NS	80	NS	NS	0.67	NS	820	NS	NS	NS	NS	NS	NS	NS	NS
DTSC HERO HHRA Note 11				NS	NS	12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Location	Sample Name	Sample Date	Sample Depth	mg/kg																									
LSB-1-1	LSB-1-1	06/09/2026	0.25	8,160	<12.6	6.41	134	<0.503	<9.92	<0.503	3,990	<8.7	15.2	8.17	27.2	17.0	4,330	330	<0.0925	<5.03	14.7	4,070	<3.77	<2.51	<1.03	<12.6	<12.6	30.0	86.1
LSB-9-3	LSB-9-3	06/09/2026	0.25	9,130	<9.54	13.5	147	<0.382	<12.1	<0.382	6,780	<8.94	18.6	9.88	32.1	42.2	4,850	321	0.0928	<3.82	16.2	4,690	<2.86	<1.91	<0.982	<9.54	<9.54	33.5	370
LSB-11-2	LSB-11-2	06/09/2026	0.25	11,600	<12.7	7.75	143	<0.506	<9.27	0.532	4,890	<8.61	22.0	8.63	29.3	43.1	5,550	355	<0.0856	<5.06	17.1	4,190	<3.80	<2.53	<0.911	<12.7	<12.7	40.1	213
LSB-13-3-A	LSB-13-3-A-0.5	06/09/2026	0.50	11,300	<13.9	9.17	155	<0.557	<12.0	<0.557	6,820	<23.5	23.2	9.09	29.3	43.7	5,080	365	<0.105	<5.57	17.0	4,280	<4.18	<2.79	<1.09	<13.9	<13.9	40.2	107
LSB-14-2	LSB-14-2	06/09/2026	0.25	7,390	<13.1	13.3	122	<0.522	<9.53	<0.522	6,570	<8.67	13.7	7.13	20.9	20.8	3,840	294	<0.0941	<5.22	12.7	3,300	<3.92	<2.61	<0.925	<13.1	<13.1	28.5	81.4

Table 3
Soil Analytical Results - Dioxins and Furans
Palm Elementary
Hacienda Heights, California

Analyte				Dioxins and Furans																									
				2,3,7,8-Tetrachlorodibenzo-P-Dioxin (2,3,7,8-TCDD)	2,3,7,8-Tetrachlorodibenzofuran (2,3,7,8-TCDF)	1,2,3,7,8-Pentachlorodibenzo-P-Dioxin (1,2,3,7,8-PeCDD)	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-PeCDF)	2,3,4,7,8-Pentachlorodibenzofuran (2,3,4,7,8-PeCDF)	1,2,3,4,7,8-Hexachlorodibenzo-P-Dioxin (1,2,3,4,7,8-HxCDD)	1,2,3,6,7,8-Hexachlorodibenzo-P-Dioxin (1,2,3,6,7,8-HxCDD)	1,2,3,7,8,9-Hexachlorodibenzo-P-Dioxin (1,2,3,7,8,9-HxCDD)	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-HxCDF)	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-HxCDF)	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-HxCDF)	2,3,4,6,7,8-Hexachlorodibenzofuran (2,3,4,6,7,8-HxCDF)	1,2,3,4,6,7,8-Heptachlorodibenzo-P-Dioxin (1,2,3,4,6,7,8-HpCDD)	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	Octachlorodibenzo-P-Dioxin (OCDD)	Octachlorodibenzofuran (OCDF)	Total Tetrachlorodibenzo-P-Dioxins (Total TCDD)	Total Tetrachlorodibenzofurans (Total TCDF)	Total Pentachlorodibenzo-p-Dioxins (Total PeCDD)	Total Pentachlorodibenzofurans (Total PeCDF)	Total Hexachlorodibenzo-P-Dioxins (Total HxCDD)	Total Hexachlorodibenzofurans (Total HxCDF)	Total Heptachlorodibenzo-P-dioxins (Total HpCDD)	Total Heptachlorodibenzofurans (Total HpCDF)	
CAS Number				1746-01-6	51207-31-9	40321-76-4	57117-41-6	57117-31-4	39227-28-6	57653-85-7	19408-74-3	70648-26-9	57117-44-9	72918-21-9	60851-34-5	35822-46-9	67562-39-4	55673-89-7	3268-87-9	39001-02-0	41903-57-5	30402-14-3	36088-22-9	30402-15-4	34465-46-8	55684-94-1	37871-00-4	38998-75-3	
EPA RSL Residential Soil				4.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	100	NS	NS	NS	
RWQCB Soil Direct Exposure Residential ESL				4.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DTSC Residential Soil				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	100	NS	NS	NS	NS
Location	Sample Name	Sample Date	Sample Depth	pg/g																									
LSB-1-1	LSB-1-1	06/09/2026	0.25	<1.1	<1.1	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	20	<5.4	<5.4	270	12	<1.1	1.7	<5.4	<5.4	<5.4	<5.4	50	7.5	
LSB-9-3	LSB-9-3	06/09/2026	0.25	<1.1	<1.1	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	39	11	<5.5	440	22	3.7	3.3	<5.5	<5.5	7.7	8.1	89	35	
LSB-11-2	LSB-11-2	06/09/2026	0.25	<1.0	<1.0	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	42	9.3	<5.1	500	21	<1.0	3.6	<5.1	<5.1	8.7	6.2	93	34	
LSB-13-3-A	LSB-13-3-A-0.5	06/09/2026	0.50	<1.2	<1.2	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	66	21	<5.8	370	34	<1.2	7.9 q	<5.8	28	6.6	36	180	51	
LSB-14-2	LSB-14-2	06/09/2026	0.25	<1.1	<1.1	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	110	30	<5.3	2300	49	<1.1	1.8	<5.3	6.7	14 q	59	200	130	

Notes:

Soil results were compared to EPA Residential RSL with THQ 1.0 and TR 1E-6 (November 2024), San Francisco Bay RWQCB Soil Direct Exposure Human Health Risk Levels - Residential, Lower of Cancer Risk and Noncancer Hazard Values (July 2025 - rev. January 2026) and CA DTSC Screening Level for Residential Soil, Lower of Cancer and Noncancer Values (April 2025)

Arsenic results were compared to CA DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note Number 11 - Southern California Ambient Arsenic Screening Level (December 2020)

EPA - Environmental Protection Agency

RSL - Regional Screening Levels

THQ - Target Hazard Quotient

TR - Target Risk

RWQCB - Regional Water Quality Control Board

ESL - Environmental Screening Level

DTSC - Department of Toxic Substances Control

CAS - Chemical Abstract Service

NS - No standard

mg/kg - Milligrams per kilogram

pg/g - Picograms per gram

RL - Reporting Limit

<RL - Not detected above laboratory reporting limit

Qualifiers:

q - The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

Exceedance Summary:

- 10** - Result exceeds EPA RSL Residential Soil
- 10** - Result exceeds RWQCB Soil Direct Exposure Residential ESL
- 10 - Result exceeds DTSC Residential Soil

ATTACHMENT A
SUMMARY OF RECORDS REVIEW

**Attachment A – Summary of Records Review
Palm Elementary School
14740 East Palm Avenue,
Hacienda Heights, California**

Palm Elementary School

Document: Environmental Data Resources (EDR) aerial photographs, topographic maps, city records, and database listings

Date: June 9, 2026

Author: EDR

Agency Involvement/Directions: N/A

Areas: Hacienda La Puente School District – Palm Elementary School and surrounding areas

Analytes/Contaminants of Concern: N/A

Conclusions: Palm Elementary School is a 12-acre parcel currently developed with eight buildings and surrounding parking areas, sports fields, two gazebos, a playground, and associated landscaping improvements. The site is bound to the north by Palm Avenue and is surrounded by residential neighborhoods. The site was historically used as citrus orchards from at least 1928 to 1954, followed by the construction of the existing school buildings between 1954 and 1964. Additional improvements included construction of two eastern buildings from 2002 to 2005 and a southwestern building between 2016 and 2020. The surrounding properties were historically utilized as citrus orchards from at least 1928 through 1954, followed by the construction of the existing residential neighborhoods between 1954 and 1964. A Hazardous Waste Tracking System database listing referenced asbestos-containing waste removed from the property in 2016. Based on the age of the original structures, there is a potential for environmental concerns related to the presence of lead-based paint and additional asbestos-containing building materials associated with earlier construction practices.

Document: Soil Sampling Memorandum

Date: August 1, 2025

Author: GSI Environmental, Inc. (GSI)

Agency Involvement/Directions: N/A

Areas: Hacienda La Puente School District – Palm Elementary School

Analytes/Contaminants of Concern: Antimony, Arsenic, Cadmium, lead, and manganese

Conclusions: This memorandum summarizes composite soil sampling and analytical results in shallow soils at Palm Elementary. GSI conducted soil sampling in July 2025, collecting 35 shallow soil samples, with 2 to 4 individual samples taken from 13 distinct zones, depending on the relative size of the zone. Soil samples collected from within a zone were then homogenized into one sample for laboratory analysis. The memorandum concluded that metal concentrations did not exceed the screening levels set by the DTSC and the USEPA, except for arsenic. While the arsenic concentrations exceeded the screening level set by the DTSC they are less than the normal background concentrations for California.

Document: Delineation Soil Sampling Report

Date: May 29, 2026

Author: Roux

Agency Involvement/Directions: N/A

Areas: La Puente School District – Palm Elementary School

Analytes/Contaminants of Concern: Cadmium, lead, arsenic, manganese, and antimony

Conclusions: The report documented the delineation of lead and arsenic in shallow soils at Palm Elementary School following earlier composite and discrete sampling that identified localized exceedances. Roux conducted additional delineation sampling in December 2025 and February 2026, collecting 96 step-out samples from 30 borings to define the lateral and vertical extent of impacted areas. Impacts were determined to be limited and adequately delineated across all zones, with no further investigation warranted. The report concluded that localized soil remediation would be appropriate in areas previously exceeding thresholds and recommended targeted excavation, proper disposal, confirmation sampling, and site restoration measures to mitigate potential exposure risks for the school community.

Ecobat / Quemetco Facility

Document: Remedial Action Order

Date: August 17, 1987

Author: California Department of Health Services

Agency Involvement/Directions: not applicable (N/A)

Areas: Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: Proposed soil analyses- Arsenic, Barium, Chromium, Copper, Lead, Mercury, Selenium, Silver, Zinc

Conclusions: This Remedial Action Order applied to the Ecobat (formerly Quemetco) Facility. On November 8, 1985, the impoundment lost interim status and was no longer authorized for the treatment, storage, or disposal of hazardous waste. The order identified a release of hazardous waste to the environment from the facility. Quemetco was directed to discontinue the use of sprinklers in the battery storage area, implement controls to contain runoff, and minimize and contain leakage from bins and transport vehicles. Use of the surface impoundment was prohibited, and the company was required to prepare a Remedial Investigation Plan. Additionally, Quemetco was required to submit documentation addressing potential contamination within specified regulatory timeframes.

Document: Final Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)

Date: September 30, 1987

Author: A.T. Kearney, Inc.

Agency Involvement/Directions: Sent to United States Environmental Protection Agency (USEPA)

Areas: Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: N/A

Conclusions: The Ecobat (formerly Quemetco) Facility was originally established in 1959 as Western Lead Products, with Quemetco assuming operations in 1970. The facility operated as a secondary lead smelter, primarily recycling lead from lead-acid vehicle batteries, and reportedly also produced zinc and zinc-alloy products. Process wastewater was discharged to San Jose Creek until 1975, when an on-site surface impoundment was constructed. The impoundment stored acidic, lead-contaminated water prior to treatment and discharge to the sanitary sewer. In November 1985, the surface impoundment and slag waste piles lost RCRA interim status and were subsequently replaced by an aboveground wastewater treatment system. Multiple enforcement actions related to interim status and closure violations had been issued since 1980.

The RFA identified 40 solid waste management units (SWMUs) and four additional areas of concern during site reconnaissance. These units were primarily associated with material storage, wastewater conveyance, storage, and treatment. A.T. Kearney concluded that many of the SWMUs posed a moderate to high potential for releases to soil and groundwater. The USEPA developed a Consent Decree to address waste management practices at the facility.

Document: Consent Decree

Date: January 6, 1988

Author: USEPA

Agency Involvement/Directions: USEPA vs Quemetco

Areas: Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: Proposed soil analyses- Arsenic, Barium, Chromium, Copper, Lead, Mercury, Selenium, Silver, Zinc

Conclusions: This document was associated with the 1987 Remedial Action Order discussed above. All actions ordered in the Remedial Action Order were reiterated, along with the required submissions to state agencies and associated timelines. This document included recommended scopes for subsurface investigations at the facility.

Document: Off-Site Sampling Report

Date: March 1992

Author: DTSC

Agency Involvement/Directions: DTSC

Areas: Surrounding properties near the Ecobat (former Quemetco) Facility, up to 3,200feet (ft) away

Analytes/Contaminants of Concern: Lead

Conclusions: The purpose of this investigation was to quantify lead concentrations in soil in the vicinity of Quemetco in order to construct soil-lead isopleths. A total of 42 soil samples were collected during the investigation. Samples North-3, Northwest-1, Northwest-2, Northwest-3, Southeast-A, Southeast-1, East-1, and East-2 exhibited concentrations of lead above the Total Threshold Limit Concentration (TTL) of 1000 mg/kg. Sample Southeast-1, which was collected 200ft from the fenceline, had a total lead concentration of 10,300mg/kg. This sample was collected from a rocky field to the east of the facility used for parking. The isopleths are not included in this file. No conclusions were provided.

Document: Closure Plan for the Inactive Surface Impoundment

Date: May 21, 1993

Author: Environmental Strategies Corporation (ESC)

Agency Involvement/Directions: N/A

Areas: Surface Impoundment

Analytes/Contaminants of Concern: Arsenic, lead, cadmium

Conclusions: This document outlined the closure approach for the inactive asphalt-lined surface impoundment at the Quemetco facility. Closure activities included removal of the asphalt liner; excavation, decontamination, and removal of the sump and associated piping; excavation of subgrade soils exceeding lead cleanup criteria; backfilling and construction of a cap with surface water drainage controls; and appropriate treatment and disposal of contaminated materials.

Site geologic conditions were previously investigated by Geothermal Surveys, Inc. (1982), Canonie Environmental (1987–1988), and ESC (1991–1992). Canonie advanced 16 soil borings to a maximum depth of 40 ft below ground surface (bgs), and ESC completed 26 borings to a maximum depth of 75.5ft bgs; bedrock was not encountered. Groundwater was observed between 14 and 49 ft bgs.

The impoundment area covered approximately 25,000 square feet (sq ft) and held about 834,000 gallons. Bulk asphalt samples (1987) and soil samples collected near the sump (1991) indicated total lead concentrations ranging from 30 to 2,000 mg/kg in the liner. Subgrade soils exceeding 150 mg/kg were limited to depths of approximately 1.0 to 1.5 ft bgs beneath the impoundment, while native clay soils from 0.5 to 2.0 ft bgs contained less than 100 mg/kg. ESC recommended a supplemental investigation consisting of six borings advanced to 25 ft bgs to further delineate contamination. The lead soil cleanup level was established at 150 mg/kg by USEPA Region IX and DTSC.

Document: Preliminary Investigation of Possible Former Seepage Pit

Date: October 19, 1994

Author: ESC

Agency Involvement/Directions: Submitted to DTSC

Areas: Surface Impoundment

Analytes/Contaminants of Concern: volatile organic compounds (VOCs), lead, arsenic, cadmium

Conclusions: This document described a preliminary investigation conducted on a suspected former seepage pit discovered during the closure of the surface impoundment at the Ecobat (formerly Quemetco) Facility. Two shallow borings were advanced into the pit to a maximum depth of 21.5 ft bgs. Metal analyses results indicated that lead, cadmium, and arsenic were not detected above soil action levels for the site.

Document: Closure Certification Report for the Inactive Surface Impoundment

Date: February 3, 1995

Author: ESC

Agency Involvement/Directions: Submitted to DTSC

Areas: Surface Impoundment

Analytes/Contaminants of Concern: Arsenic, lead, cadmium

Conclusions: Closure of the surface impoundment began on July 27, 1994, and was conducted in accordance with the approved Closure Plan. Approximately 8,200 tons of material were excavated to an average depth of 2.5 ft bgs. Confirmatory sampling included five grid areas, as well as three underground pipes, four sumps, and one concrete structure encountered during excavation. Where initial verification samples indicated elevated arsenic, cadmium, or lead, additional excavation was performed. A total of 46 verification samples and 59 samples from subsurface features were collected. Statistical analysis confirmed that the lead cleanup level was not exceeded in final verification samples. All excavated materials were managed as hazardous waste in accordance with DTSC approval (July 29, 1994). The area was backfilled with flowable fill and Class 2 base, following confirmation sampling of fill materials, and capped with six inches of concrete.

A supplemental soil investigation conducted in February 1994 included six borings advanced to 25 ft bgs, with samples collected at one-foot intervals and analyzed for arsenic, lead, and cadmium. Results were consistent with prior investigations, indicating that metal concentrations were generally limited to shallow soils and decreased with depth; lead concentrations ranged from 4.8 to 48.4 mg/kg.

Background soil sampling was performed in accordance with the approved Field Sampling Plan (May 31, 1994) to establish naturally occurring arsenic and cadmium levels. Ten samples were collected at depths of 3 to 5 ft bgs, with lead concentrations ranging from 3.8 to 8.3 mg/kg.

Document: Interim Remedial Measure Report for the Former Raw Materials Storage Area

Date: October 2, 1995

Author: ESC

Agency Involvement/Directions: Submitted to DTSC and USEPA

Areas: Raw Materials Storage Area

Analytes/Contaminants of Concern:

Conclusions: This workplan was specifically created for the former raw materials storage area. The scope of work included the removal of a concrete/asphalt liner, excavation, removal, decontamination, and reinstallation of a sump and associated piping, the excavation of subgrade soils with lead concentrations above the designated level of 150 mg/kg, backfilling and capping, and appropriate disposal of contaminated materials. Approximately 10.217 tons of material were excavated from the area, with an average depth of 3 ft bgs. All excavated materials were managed as hazardous waste in accordance with DTSC approval (January 31, 1995). A total of 47 verification samples were collected. Where initial verification samples indicated elevated arsenic, cadmium, or lead, additional excavation was performed. Statistical analysis confirmed that the lead cleanup level was not exceeded in final verification samples. The area was backfilled following confirmation sampling of fill materials and capped with of Chass II aggregate base and eight inches of concrete.

Document: Soil Gas Survey Report

Date: May 28, 1997

Author: ESC

Agency Involvement/Directions: Submitted to DTSC and USEPA, work plan approved by Los Angeles Regional Water Quality Control Board (LARWQCB)

Areas: Vadose Zone

Analytes/Contaminants of Concern: tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE)

Conclusions: This investigation followed a Los Angeles Regional Water Quality Control Board (LARWQCB)-approved work plan to assess potential VOC impacts to vadose zone soils at the Ecobat (formerly Quemetco) Facility. Seven potential source areas identified by LARWQCB on October 15, 1996 were sampled, with 45 soil gas samples collected from 2–20 ft below ground surface (bgs). VOCs were detected in 15 samples at concentrations below 27 µg/L, with tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE) most prevalent.

Document: Work Plan

Date: September 8, 2000

Author: ESC

Agency Involvement/Directions: Submitted to DTSC

Areas: Area 3 – Open Space

Analytes/Contaminants of Concern: Cadmium, total lead, arsenic

Conclusions: The purpose of the work plan was to further evaluate vadose zone conditions at the Ecobat (formerly Quemetco) Facility. Samples were collected from the proposed aboveground storage tank area, metallic sodium storage area, truck and trailer parking area, parking lot, and throughfare area to a maximum depth of 16 ft bgs. Soil samples were obtained at 5-, 10-, and 15-ft intervals and analyzed for cadmium, total lead, and arsenic.

Document: RCRA Facility Investigation (RFI) and Interim Measures Correspondence

Date: June 28, 2004

Author: DTSC

Agency Involvement/Directions: Correspondence between DTSC and Quemetco

Areas: Perimeter of Ecobat (formerly Quemetco) Facility, outside fenceline

Analytes/Contaminants of Concern: Lead

Conclusions: This correspondence summarized DTSC's collection of 10 soil samples from landscaped areas outside the Ecobat (formerly Quemetco) Facility fenceline to evaluate potential human exposure pathways. Results indicated lead concentrations exceeding the TTLC, and DTSC concluded that both the general public and Quemetco landscaping and maintenance personnel may have been at risk of exposure. DTSC subsequently required Quemetco to prepare a RFI work plan to delineate the extent of soil contamination in publicly accessible areas between the security fence and adjacent sidewalks, driveways, and neighboring properties. Analytical results from DTSC's investigation were included at the end of the correspondence.

Document: RCRA Facility Investigation Work Plan Approval

Date: June 29, 2004

Author: DTSC

Agency Involvement/Directions: DTSC Conditional Approval of Work Plan

Areas: Subsurface of Wastewater Treatment Plant solid waste management unit (SWMU)

Analytes/Contaminants of Concern: N/A

Conclusions: This memo documents the conditional approval of the January 28, 2002 Quemetco work plan (not available for review). The work plan was associated with evaluating subsurface conditions beneath the Wastewater Treatment Plant secondary containment system at the Ecobat (formerly Quemetco) Facility. As part of the approval, DTSC required the inclusion of geotechnical testing to assess soil stability.

Document: Approval of Perimeter Lead Contamination Emergency Measures

Date: August 23, 2004

Author: DTSC

Agency Involvement/Directions: DTSC approval to Quemetco

Areas: Perimeter of Ecobat (formerly Quemetco) Facility, outside fenceline

Analytes/Contaminants of Concern: Lead

Conclusions: On June 28, 2004, DTSC required Quemetco to take emergency measures to limit public exposure along the perimeter of the Ecobat (formerly Quemetco) Facility, including temporary fencing and signage. Quemetco submitted an Emergency Measures Proposal to DTSC on August 19, 2004 (not available for review). Modifications to Quemetco's work plan included covering bare soil behind proposed fencing on the adjoining vacant Witco-Richardson Facility, and additional signage along the Los Angeles County Flood Control District (LACFCD) service road.

Document: Narrow Scoped Soil Investigation Report for the Perimeter Soils Final Report

Date: July 18, 2005

Author: ESC

Agency Involvement/Directions: Submitted to DTSC

Areas: Perimeter of Ecobat (formerly Quemetco) Facility, outside fenceline

Analytes/Contaminants of Concern: Lead

Conclusions:

This investigation involved collecting soil samples along the publicly accessible perimeter of the Ecobat (formerly Quemetco) Facility to delineate the extent of lead-impacted soil, in accordance with the approved workplan and modification letter. A total of 111 locations were investigated, and a concentration of 200 parts per million (ppm) was used as the delineation criterion. The horizontal extent of soil exceeding the DTSC criterion was defined in 10- to 50-foot increments based on analytical results. Results were grouped into five areas: North (Los Angeles County Flood Control District [LACFCD] driveway), East (former Richardson Battery boundary), South (Salt Lake Avenue), Southeast (planter box area), and West (7th Avenue). The delineated extents of lead-impacted soil (to a depth of 1 foot bgs) are summarized below:

- North: Approximately 2,445 sqft
- East: Approximately 12,000 sqft
- South: Approximately 3,000 sqft

- Southeast: Approximately 3,500 sqft
- West: Approximately 2,400 sqft

Document: RCRA Facility Investigation Final Report

Date: January 13, 2006

Author: ESC

Agency Involvement/Directions: Workplan previously approved by DTSC

Areas: Area 3 – Open Space

Analytes/Contaminants of Concern: Arsenic, cadmium, lead

Conclusions: This investigation was conducted in accordance with ESC's September 8, 2000 Work Plan to evaluate potential arsenic, cadmium, and lead impacts in the vadose zone at the Ecobat (formerly Quemetco) Facility. A total of 77 locations across five facility areas were sampled. At each location, samples were collected beneath the asphalt/concrete slab and at depths of 2, 5, and 10 feet below ground surface (ft bgs) and analyzed for arsenic, cadmium, and lead. Four additional samples were collected and analyzed for constituents of concern identified in the July 23, 1999 Human Health Assessment (not available), including VOCs, polycyclic aromatic hydrocarbons (PAHs), and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Approximately 21 % of samples contained lead above the RFI criterion of 150 mg/kg. Results by area are summarized below:

- Truck and Trailer Parking Area: 11 of 27 locations exceeded the RFI criterion; maximum lead concentration was 3,800 mg/kg at 12 ft bgs.
- Metallic Sodium Storage Area: 2 of 8 locations exceeded the criterion; maximum lead was 750 mg/kg at 1 ft bgs.
- Thoroughfare Area: 9 of 21 locations exceeded the criterion; maximum lead was 49,000 mg/kg at 1 ft bgs. Metals and benzene were detected in both constituents-of-concern samples.
- Parking Lot: 8 of 15 locations exceeded the criterion; maximum arsenic and lead concentrations were 130 mg/kg and 48,000 mg/kg, respectively, at 2.5 ft bgs. Metals, benzene, and formaldehyde were detected in both constituents-of-concern samples.
- Proposed Stormwater Storage Tank Area: 4 of 6 locations exceeded the criterion; maximum arsenic and lead concentrations ranged from 17 mg/kg to 1,300 mg/kg between 0.5 and 1.5 ft bgs. Metals, benzene, and formaldehyde were detected in both constituents-of-concern samples.

Document: Narrow Scoped Soil Investigation Report for the Perimeter Soils Final Report - Revised

Date: August 11, 2006

Author: ESC

Agency Involvement/Directions: Submitted to DTSC

Areas: Perimeter of Ecobat (formerly Quemetco) Facility, outside fenceline

Analytes/Contaminants of Concern: Lead

Conclusions:

This document was a revised version of the July 18, 2005 report summarized above, with revisions limited primarily to the correction of typographical errors throughout.

Document: Response to DTSC Comments for the Perimeter Soils Investigation

Date: August 11, 2006

Author: ESC

Agency Involvement/Directions: Correspondence from ESC to DTSC

Areas: Perimeter of Ecobat (formerly Quemetco) Facility, outside fenceline

Analytes/Contaminants of Concern: Lead

Conclusions: This correspondence indicates that DTSC's comments were addressed in the August 11, 2006 revised Narrow Scoped Soil Investigation Report, prepared in response to a June 6, 2006 Notice of Deficiency issued by DTSC (not available for review). The correspondence includes both DTSC's comments and ESC's responses.

Document: Laboratory Report – Mercury – Soil

Date: August 9, 2012

Author: DTSC, Environmental Chemistry Laboratory

Agency Involvement/Directions: Sampling conducted by DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Mercury

Conclusions: This lab report contained results for mercury soil sampling conducted by DTSC.

Document: Laboratory Report – Dioxin/Furan

Date: September 8, 2012

Author: DTSC, Environmental Chemistry Laboratory

Agency Involvement/Directions: Sampling conducted by DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Dioxin/Furan

Conclusions: This lab report contained results for Dioxin/Furan soil sampling conducted by DTSC.

Document: Laboratory Report – Percent Dry Solids

Date: August 6, 2012

Author: DTSC, Environmental Chemistry Laboratory

Agency Involvement/Directions: Sampling conducted by DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Percent Dry Solids

Conclusions: This lab report contained results for Percent Dry Solids soil sampling conducted by DTSC.

Document: Laboratory Report – Total Metals

Date: August 9, 2012

Author: DTSC, Environmental Chemistry Laboratory

Agency Involvement/Directions: Sampling conducted by DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Total Metals

Conclusions: This lab report contained results for Total Metals soil sampling conducted by DTSC.

Document: Sampling Locations Markup

Date: August 9, 2012

Author: DTSC, Environmental Chemistry Laboratory

Agency Involvement/Directions: Sampling conducted by DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: N/A

Conclusions: This document was a markup of the sampling locations associated with the 2012 laboratory reports summarized above.

Document: RCRA Investigation Workplan for Off-Site Airborne Deposition/Accumulation in the Vicinity of Quemetco - Correspondence

Date: March 29, 2013

Author: DTSC

Agency Involvement/Directions: Correspondence between DTSC, and DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Lead

Conclusions: This correspondence referenced a limited DTSC soil investigation conducted in July–August 2012, with lead concentrations ranging from 138 to 1,450 mg/kg (TTL: 1,000 mg/kg). Hazardous lead levels were identified at two locations. DTSC recommended meeting with Quemetco to discuss an emergency interim measure, assess the condition of the existing plastic cover installed in 2004, evaluate potential recontamination from airborne deposition, sample nearby storm drain boxes, and delineate the full extent of airborne and surface water-borne contamination.

Document: Memorandum- Documentation of Off-Site Surficial Sampling Activities

Date: March 29, 2013

Author: DTSC

Agency Involvement/Directions: DTSC memo to the Brownfields and Environmental Restoration Program

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Lead

Conclusions: This correspondence referenced a limited DTSC soil investigation conducted in July–August 2012 at the request of the Generator-Site Unit (GSU) under the Brownfields and Environmental Restoration Program (BERP). Eight off-site surficial soil samples and one duplicate were collected adjacent to the Ecobat (formerly Quemetco) Facility to evaluate potential re-accumulation of lead in areas previously addressed by emergency interim measures. DTSC recommended that Quemetco promptly submit an emergency interim measure (IM) workplan to delineate the extent of lead exceeding the TTL.

Document: Emergency Interim Measures Workplan

Date: April 25, 2013

Author: WSP Services, Inc. (WSP)

Agency Involvement/Directions: Submitted to DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Mercury, Soil pH, Percent Dry Solids, Dioxins/Furans

Conclusions: This workplan referenced a limited soil investigation conducted by DTSC in July–August 2012 (based on the 2012 lab reports and Sampling Location Markup). Quemetco, WSP, and DTSC personnel met on April 18, 2012 to discuss the investigation. The plan was intended to delineate the lateral extent of total lead in areas SS-FCC-1 and SS-S7A-7. WSP was to relocate prior sample locations, collect additional soil samples for laboratory analysis, and use X-ray fluorescence (XRF) screening to further define contamination. Surficial soils exceeding 750 mg/kg lead during XRF screening were to be sampled for laboratory testing.

Document: Field Oversight of Implementation of 2013 Emergency Interim Measures Work Plan

Date: June 12, 2013

Author: DTSC

Agency Involvement/Directions: Documentation from DTSC staff overseeing WSP consultants

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: Mercury, Soil pH, Percent Dry Solids, Dioxins/Furans

Conclusions: The form described the field activities conducted by WSP during the implementation of the Emergency Interim Measures Work Plan. Reportedly, WSP followed the sampling and removal procedures listed in the work plan. DTSC recommended that the investigation area be expanded to include surrounding sidewalks, surface streets, tree planters, and flat roofs.

Document: Revised RCRA Facility Investigation Workplan

Date: March 14, 2016

Author: WSP

Agency Involvement/Directions: Submitted to DTSC

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: **Lead, other metals, polycyclic aromatic hydrocarbons (PAHs), dioxins/furans**

Conclusions: This Revised RFI Workplan outlined a program to evaluate off-site impacts from the Ecobat (formerly Quemetco) Facility. The workplan was developed in response to DTSC comments and directives to expand prior investigations and address airborne deposition and surface water transport of contaminants. The investigation was intended to target areas previously subject to emergency interim measures (EIMs) (2004 and later efforts) and address evidence of residual contamination and potential recontamination identified in prior DTSC investigations. The goal of the workplan was to delineate the lateral and vertical extent of contamination in soil, dust, and sediment, including previously remediated areas. Sampling was to be conducted initially within a ¼-mile radius, with adaptive expansion to one mile or greater depending on findings.

Document: Approval of Revised RFI Investigation Workplan

Date: March 21, 2016

Author: DTSC

Agency Involvement/Directions: DTSC correspondence to Quemetco

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: N/A

Conclusions: This document approved the Revised RFI Investigation Workplan dated March 16, 2016 by WSP. The purpose of the RFI Workplan was to conduct further investigation of areas that may have been impacted by airborne deposition/accumulation resulting from emissions from the Ecobat (formerly Quemetco) Facility.

Document: Background/Ambient Sample Collection Workplan

Date: April 22, 2016

Author: WSP

Agency Involvement/Directions: Submitted to DTSC

Areas: Off-Site Areas Surrounding Quemetco

Analytes/Contaminants of Concern: N/A

Conclusions: This workplan outlined a background/ambient sampling program conducted to support the RFI for the Ecobat (formerly Quemetco) Facility. The objective was to establish representative background concentrations of metals, particularly lead, in areas not influenced by facility operations. Five sampling areas (Covina, Irwindale, Rosemead, Whittier, and Rowland Heights), located approximately 5–6 miles from the facility, were selected to reflect similar land use, soil conditions, and infrastructure. Each area, up to 1 square mile, was subdivided by land use. Ambient samples were to be collected from 0 to 1.5 ft bgs, and background samples were to be collected from 5–6 ft bgs or below fill material. Samples were to be analyzed for metals, PAHs, dioxins/furans, and hexavalent chromium.

Document: Schedule for Revised RFI Investigation Workplan Fieldwork

Date: April 27, 2016

Author: WSP

Agency Involvement/Directions: Correspondence between WSP and Quemetco

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern: N/A

Conclusions: This correspondence referenced the fieldwork schedule associated with the Revised RFI Investigation Workplan referenced above. Soil sampling was scheduled for May and June of 2016, pending access agreements.

Document: Enforcement Order for Corrective Action for Quemetco Impacted Area

Date: November 16, 2018

Author: DTSC

Agency Involvement/Directions: DTSC order to Quemetco

Areas: Off-Site Areas Surrounding Quemetco

Analytes/Contaminants of Concern: metals, polycyclic aromatic hydrocarbons (PAHs), dioxins/furans

Conclusions: The DTSC issued an Enforcement Order requiring Quemetco to conduct further investigation and corrective action within the Quemetco Impacted Area (QIA) following identification of facility-related soil contamination, primarily lead exceeding hazardous waste and screening levels. The order determined that contaminants had migrated off site via aerial deposition and other pathways, affecting nearby areas. Quemetco was required to develop and implement DTSC-approved interim measures to delineate, remove, and manage contaminated soil, while preventing further migration.

The order also established requirements for workplans, reporting, data quality, and regulatory oversight to ensure protection of human health and the environment.

Document: DTSC Hotspots Analysis and Reporting Program (HARP) Air Dispersion Model 2.0 for the Ecobat (formerly Quemetco) Facility

Date: December 14, 2018

Author: DTSC

Agency Involvement/Directions: Memo sent to Site Mitigation and Restoration Program

Areas: Off-Site Areas Surrounding the Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: metals, PAHs, dioxins/furans

Conclusions: DTSC conducted air dispersion modeling using the Hotspots Analysis and Reporting Program (HARP) 2.0 tool to evaluate the potential distribution of lead in soil from historical emissions at the Quemetco facility. Using site-specific data and historical emissions (primarily from 2006–2007), the modeling predicted that lead concentrations in soil could exceed the residential screening level of 80 mg/kg at distances of up to approximately 1.6 miles from the facility. The analysis incorporated meteorological data, emission parameters, and regulatory assumptions, and converted modeled air concentrations to soil concentrations using Office of Environmental Health Hazard Assessment (OEHHA) methodologies. Results reportedly indicated that historical airborne deposition is a significant pathway for off-site contamination.

Document: DTSC Review of and Determinations Regarding RCRA Facility Investigation Report

Date: December 17, 2018

Author: DTSC

Agency Involvement/Directions: DTSC correspondence to Quemetco

Areas: Off-Site Perimeter Soil Sampling

Analytes/Contaminants of Concern:

Conclusions: DTSC reviewed Quemetco's May 2017 RFI Report (not available for review) and determined that the data and conclusions were insufficient to demonstrate that contamination from facility operations was limited to the defined Quemetco Impacted Area (QIA). The review identified significant data gaps, including limited sampling coverage, lack of hardscape and groundwater evaluation, and inadequate characterization of background/ambient conditions. DTSC also concluded that Quemetco's interpretation of results and risk conclusions were not adequately supported, particularly regarding off-site impacts and comparison to ambient conditions. Air dispersion modeling and available data indicated that facility-related contamination may extend beyond the investigated area (up to approximately 1.6 miles). As a result, DTSC required additional investigation, revision of the RFI Report, and expanded evaluation of soil, sediment, and potential exposure pathways.

Document: Final Interim Measures Workplan Quemetco Impacted Area

Date: June 30, 2019

Author: Enact, LLC (Enact)

Agency Involvement/Directions: Submission to DTSC

Areas: Quemetco Impacted Area (QIA)

Analytes/Contaminants of Concern: Lead

Conclusions: The Interim Measures (IM) Workplan outlined procedures to address lead-impacted soils within the QIA, which had been identified through prior investigations as containing elevated lead concentrations primarily from historical facility emissions. The selected remedy involved targeted excavation of shallow soils (generally 0–6 inches) exceeding the DTSC commercial/industrial screening level of 320 mg/kg, followed by off-site disposal and replacement with clean backfill. Excavation limits were guided by X-ray fluorescence (XRF) field screening and confirmed by laboratory sampling to ensure residual soil concentrations met cleanup criteria. The workplan also detailed site controls, dust suppression, air monitoring, waste handling, and restoration activities to protect workers and the surrounding community.

Document: Revised Quemetco Impacted Area (QIA) Workplan and Response to Comments

Date: July 2, 2019

Author: Enact

Agency Involvement/Directions: Submission to DTSC

Areas: QIA

Analytes/Contaminants of Concern: Lead

Conclusions: After receiving initial comments from DTSC, Enact prepared a workplan with responses to DTSC comments. Key differences between the original workplan and the revised workplan are as follows:

- The original workplan included the use of incremental sampling methodology (ISM) but did not clearly define the procedure. The updated workplan replaced ISM with a grid-based sampling approach utilizing XRF to guide excavation.
- The original workplan included pre-defined excavation limits, while the revised workplan utilized XRF screening and confirmatory sampling to guide excavation limits.

Document: Approval of Final Interim Measures Workplan for QIA

Date: July 31, 2019

Author: DTSC

Agency Involvement/Directions: Approval of workplan by DTSC

Areas: QIA

Analytes/Contaminants of Concern: Lead

Conclusions: This correspondence approved the July 2, 2019 Revised QIA Workplan prepared by Enact, and recommended that Enact use the XRF on confirmatory samples while being collected in order to provide correlation between XRF results and laboratory results.

Document: Soil-Gas Investigation Report for Closed Surface Impoundment

Date: March 1, 2020

Author: WSP

Agency Involvement/Directions: Submitted to DTSC

Areas: Closed surface impoundment inside the Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: VOCs

Conclusions: A soil-gas investigation was conducted around the closed surface impoundment (CSI) at the Ecobat (formerly Quemetco) Facility to evaluate whether subsurface soils were a potential source of VOCs and to determine the need for ongoing monitoring. The investigation included installation of six dual-nested soil gas probes (four around the CSI and two background locations) and collection of soil gas samples analyzed for VOCs. Analytical results identified low concentrations of a limited number of VOCs (PCE, TCE, benzene, toluene, and methylene chloride), with concentrations generally comparable to or lower than background levels.

Document: Current Conditions Report

Date: August 10, 2020

Author: WSP

Agency Involvement/Directions: Submitted to DTSC

Areas: Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern:

Conclusions: The Current Conditions Report for the Ecobat (formerly Quemetco) Facility was prepared to satisfy a DTSC Consent Agreement requiring documentation of site operations, environmental conditions, contamination, and corrective measures. Historically, the site underwent regulatory oversight, closure activities, and multiple upgrades to improve environmental compliance, including containment systems, stormwater controls, and emissions treatment technologies. Environmental investigations indicated that contamination is primarily limited to shallow soils (generally within the upper 5ft) and was largely confined beneath paved areas, with elevated lead and associated metals documented in select locations and perimeter areas attributed to historical emissions. Past corrective actions—including excavation, capping, and closure of the surface impoundment and former storage areas—mitigated primary contaminant sources, with verification sampling demonstrating attainment of cleanup criteria.

Document: Transect Sampling Workplan

Date: September 2020

Author: DTSC

Agency Involvement/Directions: Workplan prepared by DTSC and sent to Quemetco

Areas: Off-Site Areas Surrounding Quemetco

Analytes/Contaminants of Concern: Lead

Conclusions: The Transect Sampling Workplan outlined a second phase soil investigation designed to evaluate the lateral extent of lead contamination beyond the previously studied ¼-mile Perimeter Investigation Area, extending up to approximately one mile from the Ecobat (formerly Quemetco) Facility. The study included 11 transects radiating outward in all directions, with surface soil samples collected at approximately 100-foot intervals along public right-of-way locations such as streets, parkways, and creek access roads. Approximately 519 samples were planned for collection and analysis, with lead identified as the primary contaminant of concern. The primary objectives were to determine whether lead concentrations decreased with distance from the facility and to compare measured concentrations to ambient background levels.

Document: Phase I Interim Measures Completion Report

Date: December 17, 2020

Author: Enact

Agency Involvement/Directions: Submitted to DTSC

Areas: QIA

Analytes/Contaminants of Concern: N/A

Conclusions: This report documents completion of Phase 1 Interim Measures at the Ecobat (formerly Quemetco) Facility. The work was conducted in accordance with a California DTSC-approved Interim Measures Workplan (June 30, 2019) to address potential releases of lead-impacted soil and sediment to areas surrounding the facility (QIA). The primary objective of Phase 1 was to remove soil and sediment containing lead above the DTSC commercial/industrial screening level of 320 mg/kg. The work included excavation of impacted soils from a grass field and perimeter planter areas, removal of sediment from paved surfaces using high efficiency particulate air (HEPA) vacuuming, implementation of air monitoring and dust control measures, and collection of post-excavation confirmation samples to verify cleanup objectives. Excavation was guided by XRF screening and laboratory analysis, resulting in the removal of approximately 575 cubic yards of soil, which was transported off-site for disposal at appropriate facilities. Confirmation sampling demonstrated that remaining soil concentrations met applicable cleanup criteria. The work was completed in accordance with the DTSC-approved workplan without modifications.

Document: Transect Sampling Workplan Correspondence

Date: January 14, 2021

Author: DTSC

Agency Involvement/Directions: Correspondence between DTSC and Quemetco

Areas: Off-Site Areas Surrounding Quemetco

Analytes/Contaminants of Concern: Lead, California Assessment Manual 17 (CAM 17) metals, antimony, arsenic, cadmium, copper, and zinc

Conclusions:

This correspondence relayed the 2021 Work Plan to Quemetco and requested that soil be analyzed for California Assessment Manual 17 (CAM 17) metals excluding mercury, adding tin, lead, antimony, arsenic, cadmium, copper, and zinc. The additional analyses would provide a second line of evidence to evaluate potential lead sources near the Ecobat (formerly Quemetco) Facility.

Document: Transect Sampling Data and Analysis Report

Date: May 3, 2021

Author: Integral Consulting, Inc. (Integral)

Agency Involvement/Directions: Submitted to DTSC

Areas: Off-Site Areas Surrounding Quemetco

Analytes/Contaminants of Concern:

Conclusions: To further evaluate the lateral extent of lead concentrations in soils surrounding the Ecobat (formerly Quemetco) Facility, Integral conducted transect sampling along 11 transects and collected a total of 391 soil samples. This investigation supplemented the previous soil study conducted from 2016 to 2017 within a ¼-mile

radius of the facility. Sampling was performed primarily within public rights-of-way at approximately 100-foot intervals.

Statistical analyses were conducted to assess whether lead concentrations decreased with distance from the facility and whether concentrations exceeded ambient background levels, defined using a 95% upper tolerance limit (UTL) of 298 mg/kg. The results indicated no meaningful or consistent decrease in lead concentrations with distance, with distance accounting for less than 2% of the variability in the dataset. While localized elevated lead concentrations were identified in limited areas, these were attributed to nearby commercial or industrial sources rather than the Quemetco Facility, based on the absence of spatial trends and consistency with historical data. Overall, the findings indicated that soil lead concentrations within the study area were consistent with ambient urban background conditions, and there was no evidence that Quemetco's operations contributed to elevated lead levels beyond the previously investigated area.

Document: Phase 2 Interim Measures Completion Report

Date: May 18, 2021

Author: Enact

Agency Involvement/Directions: Submitted to DTSC

Areas: QIA

Analytes/Contaminants of Concern: Lead

Conclusions: The objective of Phase 2 Interim Measures (IM) was to remove lead-impacted soils and sediments exceeding the DTSC commercial screening level of 320 ppm, in accordance with the 2019 Phase 2 QIA IM Workplan prepared by Enact. A total of 1,462.62 cubic yards of soil was excavated and removed. Excavated soils were transported to Republic's La Paz County Landfill in Parker, Arizona for disposal as California non-RCRA hazardous waste. Impacted sediments identified in the Workplan were removed using HEPA vacuuming, with confirmation of sediment removal based on visual observation.

Following excavation, affected areas were backfilled with clean topsoil imported from Soil & Sod Depot in Pacoima, California; the fill material was analyzed prior to use to confirm suitability.

Document: Aerially Deposited Metals Sampling Workplan

Date: June 4, 2022

Author: Tetra Tech

Agency Involvement/Directions: Submitted to DTSC

Areas: Ecobat (formerly Quemetco) Facility and surrounding area

Analytes/Contaminants of Concern: Lead and arsenic

Conclusions: This workplan was designed to evaluate potential accumulation of lead and arsenic from aerial deposition. The program included an initial baseline sampling event followed by periodic (primarily annual) sampling to assess trends in surface soil concentrations over time and determine whether facility operations were contributing to offsite impacts. Sampling would be performed using incremental sampling methodology (ISM) both onsite (along the facility perimeter) and offsite in nearby public and commercial areas. Each transect would be sampled using a composite approach consisting of a minimum of 50 increments per sample. Sample results would be

evaluated to establish baseline concentrations and assess changes relative to those benchmarks in future sampling events.

Document: Data Gap Workplan

Date: August 30, 2022

Author: Enact

Agency Involvement/Directions: Submitted to DTSC

Areas: Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: Metals and VOCs

Conclusions: The Data Gap Workplan was prepared to address regulatory comments from DTSC regarding identified data gaps at the Ecobat (formerly Quemetco) Facility, specifically focusing on the former septic tank and seepage pit areas. The objective was to collect additional soil data to evaluate the presence of metals and VOCs and support closure-related remediation decisions. Previous investigations conducted in 1994 and 1997 included limited soil borings and soil gas surveys, which identified very low concentrations of metals and VOCs but were insufficient to fully characterize subsurface conditions. To address these gaps, the workplan proposed the advancement of eight soil borings in a grid pattern spaced approximately 25ft apart, with soil samples collected at 5-foot intervals to a depth of 20ft. Samples were to be analyzed for metals and VOCs to support remediation and closure activities.

Document: Final Human Health and Ecological Risk Assessment (HHERA) of RFI Open Areas Soil

Date: October 2022

Author: Tetra Tech

Agency Involvement/Directions: Submitted to DTSC

Areas: Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: Lead, arsenic, VOCs

Conclusions: The report evaluated human health risks associated with soil contamination at the Ecobat (formerly Quemetco) Facility using data from a 2005 RFI. The objective was to establish site-specific cleanup criteria, including risk-based screening levels (RBSLs) and preliminary remediation goals (PRGs), under DTSC and USEPA guidance. Soil results showed ubiquitous detection of arsenic, cadmium, and lead, with lead identified as the dominant contaminant at highly elevated concentrations (maximum approximately 66,000 mg/kg), while other constituents (e.g., VOCs, PAHs, dioxins) were rarely detected and generally at low levels. Although site conditions (paved and covered surfaces) prevented complete exposure pathways and presented no immediate risk, conservative future-use scenarios (industrial workers, construction workers, and youth trespassers) indicated that arsenic and lead would pose unacceptable cancer and non-cancer risks if soils were disturbed. Arsenic often exceeded risk-based screening levels but was generally within regional background, whereas lead consistently exceeded screening thresholds across all areas. Accordingly, no corrective action was required under existing conditions; however, if soils were exposed during excavation, redevelopment, or closure, remediation and soil management would be required to meet preliminary remediation goals (approximately 12 mg/kg for arsenic and 500 mg/kg for lead) and to ensure protection of future receptors.

Document: Approval of HHERA - Correspondence

Date: October 13, 2022

Author: DTSC

Agency Involvement/Directions: Correspondence between DTSC and Quemetco

Areas: Ecobat (formerly Quemetco) Facility

Analytes/Contaminants of Concern: Lead, arsenic, VOCs

Conclusions: The correspondence indicated that, after a round of revisions based on DTSC comments, the HHERA was approved.

Document: Aerial Deposited Metals Initial Sampling Report

Date: October 26, 2023

Author: Tetra Tech

Agency Involvement/Directions: Submitted to DTSC

Areas: Ecobat Facility and surrounding area

Analytes/Contaminants of Concern: Lead and arsenic

Conclusions: This investigation was conducted in accordance with the approved 2022 Work Plan. The report documented the results of an initial soil sampling event conducted in March 2023 at and around the Ecobat Facility to evaluate the presence of aerially deposited lead and arsenic. Eight decision units (DUs), including five onsite soil boxes and three offsite areas, were sampled using ISM, with a minimum of 50 increments collected per sample and analyzed in triplicate to assess variability and establish statistically representative mean concentrations and 95% upper confidence limits (UCLs). Results indicated that onsite DUs exhibited consistently low concentrations of both arsenic (approximately 1.35–1.64 mg/kg) and lead (approximately 3.95–4.37 mg/kg), while offsite DUs showed higher and more variable concentrations, particularly for lead, with a maximum mean of 404 mg/kg. Arsenic concentrations were elevated offsite but remained relatively low overall, with a maximum mean of approximately 7.75 mg/kg. These results were intended to be used to evaluate potential changes in lead and arsenic concentrations over time and assess whether facility operations contributed to aerial deposition impacts.

Document: Requirements for Additional Offsite Investigation - Correspondence

Date: July 15, 2024

Author: DTSC

Agency Involvement/Directions: DTSC correspondence to Ecobat

Areas: Areas surrounding the Ecobat Facility

Analytes/Contaminants of Concern:

Conclusions: The DTSC review of soil data surrounding the Ecobat facility concluded that historical operations likely contributed to lead contamination in nearby soils, with analysis indicating a strong decrease in concentrations with distance and “hot spot” patterns extending up to approximately 0.6–0.7 miles from the site. Despite extensive prior investigations, DTSC identified significant data gaps, including limited residential risk evaluation, insufficient vertical delineation, reliance on field XRF data without adequate laboratory confirmation, and incomplete analysis of metals. Elevated lead concentrations exceeding screening levels were documented in residential areas and near creeks, with potential transport via aerial deposition, runoff, and fugitive dust. As a

result, DTSC required additional offsite investigation within approximately a 0.75-mile radius, including systematic, multi-depth soil sampling across fourteen identified areas, expanded laboratory analysis, and development of a supplemental work plan to support further risk assessment and corrective actions.

Document: Distance Trend Analysis included in July 15, 2024 Letter from DTSC to Ecobat - Memorandum

Date: September 17, 2024

Author: Integral

Agency Involvement/Directions: Correspondence from Integral to DTSC

Areas: Area Surrounding the Ecobat Facility

Analytes/Contaminants of Concern: Lead

Conclusions: This Memorandum critiqued the distance trend analysis presented by DTSC Site Mitigation and Restoration Program (SMRP), which concluded that soil lead concentrations strongly decreased with distance from the Ecobat facility. The memorandum identified several technical flaws in SMRP's analysis, including inappropriate grouping of data into distance categories, use of arithmetic averages and improperly calculated upper confidence limits for lognormally distributed data, and reliance on aggregated values that overstated the strength of the distance relationship (high R^2 values based on six grouped points rather than raw data variability). Additional issues included failure to account for confounding factors such as land use, inconsistent and incorrect data selection (including mixed sample depths and duplicate inclusion), and lack of comparison to background concentrations.

Document: Geospatial Analyses in DTSC Letter (July 15, 2024) to Ecobat

Date: September 19, 2024

Author: Integral

Agency Involvement/Directions: Submitted to DTSC

Areas: Area surrounding the Ecobat Facility

Analytes/Contaminants of Concern: Lead

Conclusions:

This memorandum included similar arguments to the memorandum dated September 17, 2024, but included specific references and figures from the SMRP analyses in comparison to Integral's own analyses. Integral added details regarding its analyses and statistical methods.

Document: Spatial Modeling of Lead Deposition Due to Historical Emissions from the Ecobat Secondary Lead Smelting Facility

Date: May 2025

Author: Gray Sky Solutions

Agency Involvement/Directions: Submitted to DTSC, SMRP, and California Environmental Protection Agency (CalEPA)

Areas: Area Surrounding the Ecobat Facility

Analytes/Contaminants of Concern: Lead and arsenic

Conclusions:

The report presented an atmospheric dispersion modeling analysis (AERMOD) to estimate the spatial distribution and magnitude of lead deposition from historical emissions at the Ecobat Facility. Modeling incorporated Toxics Release Inventory (TRI) emissions data, meteorological conditions, and evolving facility configurations, and evaluated deposition on a per-pound basis to account for variability in emission rates. The results indicated that lead emissions dispersed beyond the facility boundary and deposited across surrounding industrial and residential areas, including the Hillgrove and Avocado Heights neighborhoods.

Cumulative deposition exceeded 25 mg/m² over a broad area and was estimated to exceed 500 mg/m² at locations within approximately 300 m of the facility. Although deposition rates were highest near the facility, a substantial portion of the total deposited mass occurred over a wider area extending several kilometers from the site. Approximately 13.4% of emitted lead was estimated to have deposited within a 4 km x 4 km area surrounding the facility. The report also noted that earlier operating years (1959–1986), which were not modeled due to limited data, likely contributed substantially higher deposition due to historically elevated emissions, indicating that total historical impacts may have been significantly underestimated.

Document: DTSC Revised and Superseding Comments, Transect Sampling and Data Analyses Report - Correspondence

Date: July 7, 2025

Author: DTSC

Agency Involvement/Directions: Correspondence between DTSC and Ecobat

Areas: Area Surrounding the Ecobat Facility

Analytes/Contaminants of Concern: Lead

Conclusions:

The DTSC issued revised comments withdrawing its prior April 2025 correspondence and replacing it with updated findings on the Transect Sampling Data and Analysis Report. DTSC concluded that the report's analysis did not meet the stated data quality objectives (DQOs) because it excluded soil data collected within 0.25 miles of the facility, despite those data being critical to evaluating whether lead concentrations decreased with distance. DTSC determined that when all available data were considered, the results indicated a decreasing trend in soil lead concentrations with increasing distance from the facility, suggesting facility-related contributions to offsite contamination. As a result, DTSC rejected the report's conclusion that no relationship existed between lead concentrations and distance.

Document: Written Decision Subject to Consent Agreement Dispute Resolution Provisions

Date: August 7, 2025

Author: DTSC

Agency Involvement/Directions: Written by DTSC to Ecobat

Areas: Ecobat Facility and surrounding area

Analytes/Contaminants of Concern: Lead and arsenic

Conclusions: DTSC issued a written decision determining that Ecobat's characterization of offsite soil conditions was inadequate and unsupported, rejecting the conclusion that contamination was limited to the QIA. The agency found that, based on sampling data and air modeling evaluations, facility-related lead emissions had been deposited beyond the QIA, including in nearby residential areas, with concentrations exceeding screening levels at multiple locations and extending approximately 0.5 to 0.75 miles from the facility. DTSC concluded that existing information demonstrated a contribution to offsite contamination, but that the full extent had not been delineated. As a result, DTSC disapproved the Current Conditions Report (not available for review), required additional investigation to address identified data gaps, and directed Ecobat to submit either a revised report or a supplemental RFI workplan to support further sampling and evaluation.

Document: Ecobat Response to Written Decision Subject to Consent Agreement
Dispute Resolution Provisions

Date: October 20, 2025

Author: Ecobat

Agency Involvement/Directions: Submitted to DTSC

Areas: Ecobat Facility and surrounding area

Analytes/Contaminants of Concern: Lead

Conclusions: Ecobat acknowledged DTSC's Written Decision but stated that Ecobat disagreed with DTSC's justification, including the assertion that additional offsite investigation was necessary. Despite this disagreement, Ecobat indicated that it would proceed cooperatively to avoid a prolonged dispute and agreed to undertake the next steps requested by DTSC. Ecobat elected to develop a supplemental RFI Workplan rather than revise the Current Conditions Report, outlining additional investigation in identified offsite areas.

Document: Final Written Decision

Date: October 27, 2025

Author: DTSC

Agency Involvement/Directions: Written by DTSC to Ecobat

Areas: Area Surrounding the Ecobat Facility

Analytes/Contaminants of Concern: Lead

Conclusions: DTSC reaffirmed the conclusions of the August 7, 2025 Written Decision regarding offsite investigation requirements for the Ecobat facility, incorporating that prior decision by reference with limited modification. DTSC required Ecobat to proceed with preparation and submittal of an RFI Supplemental Workplan, consistent with Ecobat's earlier election, in lieu of revising the Current Conditions Report. The agency also established a required submittal timeframe of 90 days from the date of the final decision and indicated its intent to continue coordinating with Ecobat regarding implementation of the investigation under the Consent Agreement.

ATTACHMENT B
LABORATORY ANALYTICAL REPORTS



ANALYTICAL REPORT

PREPARED FOR

Attn: Daniel Parsons
Langan Engineering & Environmental Services LLC
1960 East Grand Street
Suite 585
El Segundo, California 90245

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JOB DESCRIPTION

Palm Elementary (HLPUSD) / 721066701

JOB NUMBER

570-283115-1

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Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Authorized for release by
Vikas Patel, Project Manager I
Vikas.Patel@et.eurofinsus.com
(714)895-5494

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Definitions/Glossary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Qualifiers

Dioxin

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit

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
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Services LLC
Project: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Job ID: 570-283115-1

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Job Narrative 570-283115-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 6/10/2026 1:56 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 13.1°C.

Receipt Exceptions

The following samples was received at the laboratory outside the required temperature criteria: LSB-13-3-A-0.5 (570-283115-1), LSB-14-2 (570-283115-2), LSB-1-1 (570-283115-3), LSB-11-2 (570-283115-4) and LSB-9-3 (570-283115-5). The samples is considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS Semi VOA

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

Dioxin

Method 8290A: The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: LSB-1-1 (570-283115-3). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 8290A: Ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) associated with the following sample: LSB-1-1 (570-283115-3). The theoretical area for the IDA was used to quantitate recovery and target concentration.

Method 8290A: The Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: LSB-13-3-A-0.5 (570-283115-1) and LSB-14-2 (570-283115-2). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the samples.

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

Metals

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

General Chemistry

Method 7196A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 570-755967 and analytical batch 570-756641 were outside control limits: (570-283115-A-1-H MSI). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 7196A: The sample soluble, insoluble, and post-digestion spike (PDS) recoveries were outside criteria. Acceptable laboratory control sample (LCS) soluble and insoluble analysis data demonstrate that the analytical system was operating in control; therefore, this condition is most likely due to a matrix effect

Method 7196A: The following samples were diluted due to <the dark color and precipitate of the sample matrix>, such as color, odor, appearance, viscosity, etc.>>: LSB-13-3-A-0.5 (570-283115-1), LSB-14-2 (570-283115-2), LSB-1-1 (570-283115-3), LSB-11-2 (570-283115-4) and LSB-9-3 (570-283115-5). Elevated reporting limits (RL) are provided.

Method D2216-92: The sample duplicate (DUP) precision for analytical batch 570-752979 was outside control limits. Sample

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Case Narrative

Client: Langan Engineering & Environmental Services LLC
Project: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Job ID: 570-283115-1 (Continued)

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non-homogeneity is suspected.

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

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Detection Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Client Sample ID: LSB-13-3-A-0.5

Lab Sample ID: 570-283115-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDF	21		5.8		pg/g	1	✱	8290A	Total/NA
OCDD	370		12		pg/g	1	✱	8290A	Total/NA
OCDF	34		12		pg/g	1	✱	8290A	Total/NA
Total TCDF	7.9	q	1.2		pg/g	1	✱	8290A	Total/NA
Total PeCDF	28		5.8		pg/g	1	✱	8290A	Total/NA
Total HxCDD	6.6		5.8		pg/g	1	✱	8290A	Total/NA
Total HxCDF	36		5.8		pg/g	1	✱	8290A	Total/NA
Total HpCDF	51		5.8		pg/g	1	✱	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD - RE	66		5.8		pg/g	1	✱	8290A	Total/NA
Total HpCDD - RE	180		5.8		pg/g	1	✱	8290A	Total/NA
Aluminum	11300		13.9		mg/Kg	2	✱	6010D	Total/NA
Arsenic	9.17		4.18		mg/Kg	2	✱	6010D	Total/NA
Barium	155		2.79		mg/Kg	2	✱	6010D	Total/NA
Chromium	23.2		1.39		mg/Kg	2	✱	6010D	Total/NA
Cobalt	9.09		2.79		mg/Kg	2	✱	6010D	Total/NA
Copper	29.3		2.79		mg/Kg	2	✱	6010D	Total/NA
Calcium	6820		41.8		mg/Kg	2	✱	6010D	Total/NA
Lead	43.7		2.79		mg/Kg	2	✱	6010D	Total/NA
Nickel	17.0		2.79		mg/Kg	2	✱	6010D	Total/NA
Vanadium	40.2		5.57		mg/Kg	2	✱	6010D	Total/NA
Magnesium	5080		27.9		mg/Kg	2	✱	6010D	Total/NA
Zinc	107		5.57		mg/Kg	2	✱	6010D	Total/NA
Manganese	365		5.57		mg/Kg	2	✱	6010D	Total/NA
Potassium	4280		139		mg/Kg	2	✱	6010D	Total/NA

Client Sample ID: LSB-14-2

Lab Sample ID: 570-283115-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDF	30		5.3		pg/g	1	✱	8290A	Total/NA
OCDD	2300		11		pg/g	1	✱	8290A	Total/NA
OCDF	49		11		pg/g	1	✱	8290A	Total/NA
Total TCDF	1.8		1.1		pg/g	1	✱	8290A	Total/NA
Total PeCDF	6.7		5.3		pg/g	1	✱	8290A	Total/NA
Total HxCDD	14	q	5.3		pg/g	1	✱	8290A	Total/NA
Total HxCDF	59		5.3		pg/g	1	✱	8290A	Total/NA
Total HpCDF	130		5.3		pg/g	1	✱	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD - RE	110		5.2		pg/g	1	✱	8290A	Total/NA
Total HpCDD - RE	200		5.2		pg/g	1	✱	8290A	Total/NA
Aluminum	7390		13.1		mg/Kg	2	✱	6010D	Total/NA
Arsenic	13.3		3.92		mg/Kg	2	✱	6010D	Total/NA
Barium	122		2.61		mg/Kg	2	✱	6010D	Total/NA
Chromium	13.7		1.31		mg/Kg	2	✱	6010D	Total/NA
Cobalt	7.13		2.61		mg/Kg	2	✱	6010D	Total/NA
Copper	20.9		2.61		mg/Kg	2	✱	6010D	Total/NA
Calcium	6570		39.2		mg/Kg	2	✱	6010D	Total/NA
Lead	20.8		2.61		mg/Kg	2	✱	6010D	Total/NA
Nickel	12.7		2.61		mg/Kg	2	✱	6010D	Total/NA
Vanadium	28.5		5.22		mg/Kg	2	✱	6010D	Total/NA
Magnesium	3840		26.1		mg/Kg	2	✱	6010D	Total/NA
Zinc	81.4		5.22		mg/Kg	2	✱	6010D	Total/NA
Manganese	294		5.22		mg/Kg	2	✱	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Client Sample ID: LSB-14-2 (Continued)

Lab Sample ID: 570-283115-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Potassium	3300		131	mg/Kg	2	✱	6010D	Total/NA

Client Sample ID: LSB-1-1

Lab Sample ID: 570-283115-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.030		0.022	mg/Kg	1	✱	8270E SIM	Total/NA
OCDD	270		11	pg/g	1	✱	8290A	Total/NA
OCDF	12		11	pg/g	1	✱	8290A	Total/NA
Total TCDF	1.7		1.1	pg/g	1	✱	8290A	Total/NA
Total HpCDF	7.5		5.4	pg/g	1	✱	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD - RE	20		5.3	pg/g	1	✱	8290A	Total/NA
Total HpCDD - RE	50		5.3	pg/g	1	✱	8290A	Total/NA
Aluminum	8160		12.6	mg/Kg	2	✱	6010D	Total/NA
Arsenic	6.41		3.77	mg/Kg	2	✱	6010D	Total/NA
Barium	134		2.51	mg/Kg	2	✱	6010D	Total/NA
Chromium	15.2		1.26	mg/Kg	2	✱	6010D	Total/NA
Cobalt	8.17		2.51	mg/Kg	2	✱	6010D	Total/NA
Copper	27.2		2.51	mg/Kg	2	✱	6010D	Total/NA
Calcium	3990		37.7	mg/Kg	2	✱	6010D	Total/NA
Lead	17.0		2.51	mg/Kg	2	✱	6010D	Total/NA
Nickel	14.7		2.51	mg/Kg	2	✱	6010D	Total/NA
Vanadium	30.0		5.03	mg/Kg	2	✱	6010D	Total/NA
Magnesium	4330		25.1	mg/Kg	2	✱	6010D	Total/NA
Zinc	86.1		5.03	mg/Kg	2	✱	6010D	Total/NA
Manganese	330		5.03	mg/Kg	2	✱	6010D	Total/NA
Potassium	4070		126	mg/Kg	2	✱	6010D	Total/NA

Client Sample ID: LSB-11-2

Lab Sample ID: 570-283115-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.021		0.021	mg/Kg	1	✱	8270E SIM	Total/NA
Benzo[b]fluoranthene	0.033		0.021	mg/Kg	1	✱	8270E SIM	Total/NA
Chrysene	0.025		0.021	mg/Kg	1	✱	8270E SIM	Total/NA
Fluoranthene	0.024		0.021	mg/Kg	1	✱	8270E SIM	Total/NA
Pyrene	0.026		0.021	mg/Kg	1	✱	8270E SIM	Total/NA
1,2,3,4,6,7,8-HpCDF	9.3		5.1	pg/g	1	✱	8290A	Total/NA
OCDD	500		10	pg/g	1	✱	8290A	Total/NA
OCDF	21		10	pg/g	1	✱	8290A	Total/NA
Total TCDF	3.6		1.0	pg/g	1	✱	8290A	Total/NA
Total HxCDD	8.7		5.1	pg/g	1	✱	8290A	Total/NA
Total HxCDF	6.2		5.1	pg/g	1	✱	8290A	Total/NA
Total HpCDF	34		5.1	pg/g	1	✱	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD - RE	42		5.3	pg/g	1	✱	8290A	Total/NA
Total HpCDD - RE	93		5.3	pg/g	1	✱	8290A	Total/NA
Aluminum	11600		12.7	mg/Kg	2	✱	6010D	Total/NA
Arsenic	7.75		3.80	mg/Kg	2	✱	6010D	Total/NA
Barium	143		2.53	mg/Kg	2	✱	6010D	Total/NA
Cadmium	0.532		0.506	mg/Kg	2	✱	6010D	Total/NA
Chromium	22.0		1.27	mg/Kg	2	✱	6010D	Total/NA
Cobalt	8.63		2.53	mg/Kg	2	✱	6010D	Total/NA
Copper	29.3		2.53	mg/Kg	2	✱	6010D	Total/NA
Calcium	4890		38.0	mg/Kg	2	✱	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Client Sample ID: LSB-11-2 (Continued)

Lab Sample ID: 570-283115-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	43.1		2.53	mg/Kg	2	✱	6010D	Total/NA
Nickel	17.1		2.53	mg/Kg	2	✱	6010D	Total/NA
Vanadium	40.1		5.06	mg/Kg	2	✱	6010D	Total/NA
Magnesium	5550		25.3	mg/Kg	2	✱	6010D	Total/NA
Zinc	213		5.06	mg/Kg	2	✱	6010D	Total/NA
Manganese	355		5.06	mg/Kg	2	✱	6010D	Total/NA
Potassium	4190		127	mg/Kg	2	✱	6010D	Total/NA

Client Sample ID: LSB-9-3

Lab Sample ID: 570-283115-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.048		0.022	mg/Kg	1	✱	8270E SIM	Total/NA
Fluoranthene	0.032		0.022	mg/Kg	1	✱	8270E SIM	Total/NA
Pyrene	0.067		0.022	mg/Kg	1	✱	8270E SIM	Total/NA
1,2,3,4,6,7,8-HpCDF	11		5.5	pg/g	1	✱	8290A	Total/NA
OCDD	440		11	pg/g	1	✱	8290A	Total/NA
OCDF	22		11	pg/g	1	✱	8290A	Total/NA
Total TCDD	3.7		1.1	pg/g	1	✱	8290A	Total/NA
Total TCDF	3.3		1.1	pg/g	1	✱	8290A	Total/NA
Total HxCDD	7.7		5.5	pg/g	1	✱	8290A	Total/NA
Total HxCDF	8.1		5.5	pg/g	1	✱	8290A	Total/NA
Total HpCDF	35		5.5	pg/g	1	✱	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD - RE	39		5.3	pg/g	1	✱	8290A	Total/NA
Total HpCDD - RE	89		5.3	pg/g	1	✱	8290A	Total/NA
Aluminum	9130		9.54	mg/Kg	2	✱	6010D	Total/NA
Arsenic	13.5		2.86	mg/Kg	2	✱	6010D	Total/NA
Barium	147		1.91	mg/Kg	2	✱	6010D	Total/NA
Chromium	18.6		0.954	mg/Kg	2	✱	6010D	Total/NA
Cobalt	9.88		1.91	mg/Kg	2	✱	6010D	Total/NA
Copper	32.1		1.91	mg/Kg	2	✱	6010D	Total/NA
Calcium	6780		28.6	mg/Kg	2	✱	6010D	Total/NA
Lead	42.2		1.91	mg/Kg	2	✱	6010D	Total/NA
Nickel	16.2		1.91	mg/Kg	2	✱	6010D	Total/NA
Vanadium	33.5		3.82	mg/Kg	2	✱	6010D	Total/NA
Magnesium	4850		19.1	mg/Kg	2	✱	6010D	Total/NA
Zinc	370		3.82	mg/Kg	2	✱	6010D	Total/NA
Manganese	321		3.82	mg/Kg	2	✱	6010D	Total/NA
Potassium	4690		95.4	mg/Kg	2	✱	6010D	Total/NA
Mercury	0.0928		0.0923	mg/Kg	1	✱	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8270E SIM - PAHs (GC/MS SIM)

Client Sample ID: LSB-13-3-A-0.5

Date Collected: 06/09/26 08:15

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
2-Methylnaphthalene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Acenaphthene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Acenaphthylene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Anthracene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Benzo[g,h,i]perylene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Benzo[k]fluoranthene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Benzo[a]anthracene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Benzo[a]pyrene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Benzo[b]fluoranthene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Chrysene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Dibenz(a,h)anthracene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Fluoranthene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Fluorene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Indeno[1,2,3-cd]pyrene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Naphthalene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Phenanthrene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1
Pyrene	ND		0.023	mg/Kg	✱	06/15/26 13:16	06/18/26 08:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		22 - 130	06/15/26 13:16	06/18/26 08:18	1
Nitrobenzene-d5 (Surr)	63		20 - 145	06/15/26 13:16	06/18/26 08:18	1
p-Terphenyl-d14 (Surr)	79		33 - 147	06/15/26 13:16	06/18/26 08:18	1

Client Sample ID: LSB-14-2

Date Collected: 06/09/26 08:25

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
2-Methylnaphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Acenaphthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Acenaphthylene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Benzo[g,h,i]perylene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Benzo[k]fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Benzo[a]anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Benzo[a]pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Benzo[b]fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Chrysene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Dibenz(a,h)anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Fluorene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Indeno[1,2,3-cd]pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Naphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Phenanthrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1
Pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 08:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		22 - 130	06/15/26 13:16	06/18/26 08:41	1
Nitrobenzene-d5 (Surr)	61		20 - 145	06/15/26 13:16	06/18/26 08:41	1

Eurofins Calscience

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8270E SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: LSB-14-2
Date Collected: 06/09/26 08:25
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	86		33 - 147	06/15/26 13:16	06/18/26 08:41	1

Client Sample ID: LSB-1-1
Date Collected: 06/09/26 08:40
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
2-Methylnaphthalene	0.030		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Acenaphthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Acenaphthylene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Benzo[g,h,i]perylene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Benzo[k]fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Benzo[a]anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Benzo[a]pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Benzo[b]fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Chrysene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Dibenz[a,h]anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Fluorene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Indeno[1,2,3-cd]pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Naphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Phenanthrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1
Pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		22 - 130	06/15/26 13:16	06/18/26 09:03	1
Nitrobenzene-d5 (Surr)	64		20 - 145	06/15/26 13:16	06/18/26 09:03	1
p-Terphenyl-d14 (Surr)	76		33 - 147	06/15/26 13:16	06/18/26 09:03	1

Client Sample ID: LSB-11-2
Date Collected: 06/09/26 08:50
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
2-Methylnaphthalene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Acenaphthene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Acenaphthylene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Anthracene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Benzo[g,h,i]perylene	0.021		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Benzo[k]fluoranthene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Benzo[a]anthracene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Benzo[a]pyrene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Benzo[b]fluoranthene	0.033		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Chrysene	0.025		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Dibenz[a,h]anthracene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Fluoranthene	0.024		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Fluorene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Indeno[1,2,3-cd]pyrene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Naphthalene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8270E SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: LSB-11-2
Date Collected: 06/09/26 08:50
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Pyrene	0.026		0.021	mg/Kg	✱	06/15/26 13:16	06/18/26 09:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	86		22 - 130			06/15/26 13:16	06/18/26 09:26	1
Nitrobenzene-d5 (Surr)	76		20 - 145			06/15/26 13:16	06/18/26 09:26	1
p-Terphenyl-d14 (Surr)	91		33 - 147			06/15/26 13:16	06/18/26 09:26	1

Client Sample ID: LSB-9-3
Date Collected: 06/09/26 09:00
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
2-Methylnaphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Acenaphthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Acenaphthylene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Benzo[g,h,i]perylene	0.048		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Benzo[k]fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Benzo[a]anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Benzo[a]pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Benzo[b]fluoranthene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Chrysene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Dibenz(a,h)anthracene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Fluoranthene	0.032		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Fluorene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Indeno[1,2,3-cd]pyrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Naphthalene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Phenanthrene	ND		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Pyrene	0.067		0.022	mg/Kg	✱	06/15/26 13:16	06/18/26 09:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		22 - 130			06/15/26 13:16	06/18/26 09:53	1
Nitrobenzene-d5 (Surr)	68		20 - 145			06/15/26 13:16	06/18/26 09:53	1
p-Terphenyl-d14 (Surr)	80		33 - 147			06/15/26 13:16	06/18/26 09:53	1

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Client Sample ID: LSB-13-3-A-0.5

Date Collected: 06/09/26 08:15

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-1

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.2		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
2,3,7,8-TCDF	ND		1.2		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,7,8-PeCDD	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,7,8-PeCDF	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
2,3,4,7,8-PeCDF	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,4,7,8-HxCDD	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,6,7,8-HxCDD	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,7,8,9-HxCDD	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,4,7,8-HxCDF	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,6,7,8-HxCDF	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,7,8,9-HxCDF	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
2,3,4,6,7,8-HxCDF	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,4,6,7,8-HpCDF	21		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
1,2,3,4,7,8,9-HpCDF	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
OCDD	370		12		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
OCDF	34		12		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
Total TCDD	ND		1.2		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
Total TCDF	7.9	q	1.2		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
Total PeCDD	ND		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
Total PeCDF	28		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
Total HxCDD	6.6		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
Total HxCDF	36		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1
Total HpCDF	51		5.8		pg/g	✱	06/16/26 10:21	06/18/26 09:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	61		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-2,3,7,8-TCDF	64		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,7,8-PeCDD	47		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,7,8-PeCDF	48		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-2,3,4,7,8-PeCDF	52		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,4,7,8-HxCDD	47		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,6,7,8-HxCDD	50		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,4,7,8-HxCDF	50		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,6,7,8-HxCDF	49		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-2,3,4,6,7,8-HxCDF	51		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,7,8,9-HxCDF	61		40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,4,6,7,8-HpCDF	31	*5-	40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-1,2,3,4,7,8,9-HpCDF	38	*5-	40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-OCDD	27	*5-	40 - 135	06/16/26 10:21	06/18/26 09:35	1
13C-OCDF	34	*5-	40 - 135	06/16/26 10:21	06/18/26 09:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	87		35 - 197	06/16/26 10:21	06/18/26 09:35	1

Client Sample ID: LSB-14-2

Date Collected: 06/09/26 08:25

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.1		pg/g	✱	06/16/26 10:21	06/18/26 10:25	1
2,3,7,8-TCDF	ND		1.1		pg/g	✱	06/16/26 10:21	06/18/26 10:25	1
1,2,3,7,8-PeCDD	ND		5.3		pg/g	✱	06/16/26 10:21	06/18/26 10:25	1

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: LSB-14-2
Date Collected: 06/09/26 08:25
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8-PeCDF	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
2,3,4,7,8-PeCDF	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,4,7,8-HxCDD	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,6,7,8-HxCDD	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,7,8,9-HxCDD	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,4,7,8-HxCDF	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,6,7,8-HxCDF	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,7,8,9-HxCDF	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
2,3,4,6,7,8-HxCDF	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,4,6,7,8-HpCDF	30		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
1,2,3,4,7,8,9-HpCDF	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
OCDD	2300		11		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
OCDF	49		11		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Total TCDD	ND		1.1		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Total TCDF	1.8		1.1		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Total PeCDD	ND		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Total PeCDF	6.7		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Total HxCDD	14	q	5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Total HxCDF	59		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Total HpCDF	130		5.3		pg/g	☼	06/16/26 10:21	06/18/26 10:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	46		40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-2,3,7,8-TCDF	54		40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,7,8-PeCDD	31	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,7,8-PeCDF	35	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-2,3,4,7,8-PeCDF	36	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,4,7,8-HxCDD	21	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,6,7,8-HxCDD	21	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,4,7,8-HxCDF	26	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,6,7,8-HxCDF	24	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-2,3,4,6,7,8-HxCDF	23	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,7,8,9-HxCDF	37	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,4,6,7,8-HpCDF	8	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-1,2,3,4,7,8,9-HpCDF	15	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-OCDD	5	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
13C-OCDF	8	*5-	40 - 135				06/16/26 10:21	06/18/26 10:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	89		35 - 197				06/16/26 10:21	06/18/26 10:25	1

Client Sample ID: LSB-1-1
Date Collected: 06/09/26 08:40
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.1		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
2,3,7,8-TCDF	ND		1.1		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,7,8-PeCDD	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,7,8-PeCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
2,3,4,7,8-PeCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,4,7,8-HxCDD	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1

Eurofins Calscience

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: LSB-1-1

Date Collected: 06/09/26 08:40

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDD	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,7,8,9-HxCDD	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,4,7,8-HxCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,6,7,8-HxCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,7,8,9-HxCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
2,3,4,6,7,8-HxCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,4,6,7,8-HpCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
1,2,3,4,7,8,9-HpCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
OCDD	270		11		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
OCDF	12		11		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
Total TCDD	ND		1.1		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
Total TCDF	1.7		1.1		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
Total PeCDD	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
Total PeCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
Total HxCDD	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
Total HxCDF	ND		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1
Total HpCDF	7.5		5.4		pg/g	☼	06/16/26 10:21	06/18/26 11:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	76		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-2,3,7,8-TCDF	76		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,7,8-PeCDD	66		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,7,8-PeCDF	68		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-2,3,4,7,8-PeCDF	69		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,4,7,8-HxCDD	70		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,6,7,8-HxCDD	75		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,4,7,8-HxCDF	77		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,6,7,8-HxCDF	78		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-2,3,4,6,7,8-HxCDF	82		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,7,8,9-HxCDF	91		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,4,6,7,8-HpCDF	56		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-1,2,3,4,7,8,9-HpCDF	61		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-OCDD	49		40 - 135	06/16/26 10:21	06/18/26 11:14	1
13C-OCDF	60		40 - 135	06/16/26 10:21	06/18/26 11:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	94		35 - 197	06/16/26 10:21	06/18/26 11:14	1

Client Sample ID: LSB-11-2

Date Collected: 06/09/26 08:50

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
2,3,7,8-TCDF	ND		1.0		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,7,8-PeCDD	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,7,8-PeCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
2,3,4,7,8-PeCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,4,7,8-HxCDD	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,6,7,8-HxCDD	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,7,8,9-HxCDD	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,4,7,8-HxCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: LSB-11-2
Date Collected: 06/09/26 08:50
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,7,8,9-HxCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
2,3,4,6,7,8-HxCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,4,6,7,8-HpCDF	9.3		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
1,2,3,4,7,8,9-HpCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
OCDD	500		10		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
OCDF	21		10		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Total TCDD	ND		1.0		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Total TCDF	3.6		1.0		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Total PeCDD	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Total PeCDF	ND		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Total HxCDD	8.7		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Total HxCDF	6.2		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Total HpCDF	34		5.1		pg/g	☼	06/16/26 10:21	06/18/26 12:04	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	74		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-2,3,7,8-TCDF	72		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,7,8-PeCDD	64		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,7,8-PeCDF	64		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-2,3,4,7,8-PeCDF	65		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,4,7,8-HxCDD	65		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,6,7,8-HxCDD	70		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,4,7,8-HxCDF	71		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,6,7,8-HxCDF	71		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-2,3,4,6,7,8-HxCDF	76		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,7,8,9-HxCDF	83		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,4,6,7,8-HpCDF	52		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-1,2,3,4,7,8,9-HpCDF	54		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-OCDD	45		40 - 135				06/16/26 10:21	06/18/26 12:04	1
13C-OCDF	55		40 - 135				06/16/26 10:21	06/18/26 12:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	88		35 - 197				06/16/26 10:21	06/18/26 12:04	1

Client Sample ID: LSB-9-3
Date Collected: 06/09/26 09:00
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.1		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
2,3,7,8-TCDF	ND		1.1		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,7,8-PeCDD	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,7,8-PeCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
2,3,4,7,8-PeCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,4,7,8-HxCDD	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,6,7,8-HxCDD	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,7,8,9-HxCDD	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,4,7,8-HxCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,6,7,8-HxCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,7,8,9-HxCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
2,3,4,6,7,8-HxCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: LSB-9-3

Date Collected: 06/09/26 09:00

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDF	11		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
1,2,3,4,7,8,9-HpCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
OCDD	440		11		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
OCDF	22		11		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Total TCDD	3.7		1.1		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Total TCDF	3.3		1.1		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Total PeCDD	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Total PeCDF	ND		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Total HxCDD	7.7		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Total HxCDF	8.1		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Total HpCDF	35		5.5		pg/g	☼	06/16/26 10:21	06/18/26 12:54	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	71		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-2,3,7,8-TCDF	70		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,7,8-PeCDD	62		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,7,8-PeCDF	63		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-2,3,4,7,8-PeCDF	64		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,4,7,8-HxCDD	65		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,6,7,8-HxCDD	72		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,4,7,8-HxCDF	72		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,6,7,8-HxCDF	74		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-2,3,4,6,7,8-HxCDF	78		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,7,8,9-HxCDF	83		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,4,6,7,8-HpCDF	57		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-1,2,3,4,7,8,9-HpCDF	56		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-OCDD	52		40 - 135				06/16/26 10:21	06/18/26 12:54	1
13C-OCDF	61		40 - 135				06/16/26 10:21	06/18/26 12:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	91		35 - 197				06/16/26 10:21	06/18/26 12:54	1

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) - RE

Client Sample ID: LSB-13-3-A-0.5

Date Collected: 06/09/26 08:15

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-1

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	66		5.8		pg/g	☼	06/19/26 07:40	06/24/26 01:17	1
Total HpCDD	180		5.8		pg/g	☼	06/19/26 07:40	06/24/26 01:17	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	71		40 - 135				06/19/26 07:40	06/24/26 01:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	97		35 - 197				06/19/26 07:40	06/24/26 01:17	1

Client Sample ID: LSB-14-2

Date Collected: 06/09/26 08:25

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	110		5.2		pg/g	☼	06/19/26 07:40	06/24/26 02:07	1
Total HpCDD	200		5.2		pg/g	☼	06/19/26 07:40	06/24/26 02:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	44		40 - 135				06/19/26 07:40	06/24/26 02:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	89		35 - 197				06/19/26 07:40	06/24/26 02:07	1

Client Sample ID: LSB-1-1

Date Collected: 06/09/26 08:40

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	20		5.3		pg/g	☼	06/19/26 07:40	06/24/26 02:57	1
Total HpCDD	50		5.3		pg/g	☼	06/19/26 07:40	06/24/26 02:57	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	26	q *5-	40 - 135				06/19/26 07:40	06/24/26 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	93		35 - 197				06/19/26 07:40	06/24/26 02:57	1

Client Sample ID: LSB-11-2

Date Collected: 06/09/26 08:50

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	42		5.3		pg/g	☼	06/19/26 07:40	06/24/26 03:46	1
Total HpCDD	93		5.3		pg/g	☼	06/19/26 07:40	06/24/26 03:46	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	94		40 - 135				06/19/26 07:40	06/24/26 03:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	90		35 - 197				06/19/26 07:40	06/24/26 03:46	1

Client Sample ID: LSB-9-3

Date Collected: 06/09/26 09:00

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5

Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	39		5.3		pg/g	☼	06/19/26 07:40	06/24/26 04:36	1
Total HpCDD	89		5.3		pg/g	☼	06/19/26 07:40	06/24/26 04:36	1

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) - RE (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C-1,2,3,4,6,7,8-HpCDD	86		40 - 135	06/19/26 07:40	06/24/26 04:36	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
37Cl4-2,3,7,8-TCDD	92		35 - 197	06/19/26 07:40	06/24/26 04:36	1

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 6010D - Metals (ICP)

Client Sample ID: LSB-13-3-A-0.5

Date Collected: 06/09/26 08:15

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11300		13.9	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Antimony	ND		13.9	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Arsenic	9.17		4.18	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Barium	155		2.79	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Beryllium	ND		0.557	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Cadmium	ND		0.557	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Bismuth	ND		12.0	mg/Kg	✱	06/18/26 09:03	06/18/26 11:42	2
Chromium	23.2		1.39	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Cobalt	9.09		2.79	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Copper	29.3		2.79	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Calcium	6820		41.8	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Lead	43.7		2.79	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Molybdenum	ND		5.57	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Nickel	17.0		2.79	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Selenium	ND		4.18	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Silver	ND		2.79	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Thallium	ND		13.9	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Vanadium	40.2		5.57	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Magnesium	5080		27.9	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Zinc	107		5.57	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Manganese	365		5.57	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Potassium	4280		139	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2
Tin	ND		13.9	mg/Kg	✱	06/16/26 15:24	06/16/26 21:31	2

Client Sample ID: LSB-14-2

Date Collected: 06/09/26 08:25

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7390		13.1	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Antimony	ND		13.1	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Arsenic	13.3		3.92	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Barium	122		2.61	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Beryllium	ND		0.522	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Cadmium	ND		0.522	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Bismuth	ND		9.53	mg/Kg	✱	06/18/26 09:03	06/18/26 11:53	2
Chromium	13.7		1.31	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Cobalt	7.13		2.61	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Copper	20.9		2.61	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Calcium	6570		39.2	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Lead	20.8		2.61	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Molybdenum	ND		5.22	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Nickel	12.7		2.61	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Selenium	ND		3.92	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Silver	ND		2.61	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Thallium	ND		13.1	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Vanadium	28.5		5.22	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Magnesium	3840		26.1	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Zinc	81.4		5.22	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Manganese	294		5.22	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2
Potassium	3300		131	mg/Kg	✱	06/16/26 15:24	06/16/26 21:36	2

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 6010D - Metals (ICP) (Continued)

Client Sample ID: LSB-14-2
Date Collected: 06/09/26 08:25
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tin	ND		13.1	mg/Kg	☆	06/16/26 15:24	06/16/26 21:36	2

Client Sample ID: LSB-1-1
Date Collected: 06/09/26 08:40
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8160		12.6	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Antimony	ND		12.6	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Arsenic	6.41		3.77	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Barium	134		2.51	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Beryllium	ND		0.503	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Cadmium	ND		0.503	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Bismuth	ND		9.92	mg/Kg	☆	06/18/26 09:03	06/18/26 11:55	2
Chromium	15.2		1.26	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Cobalt	8.17		2.51	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Copper	27.2		2.51	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Calcium	3990		37.7	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Lead	17.0		2.51	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Molybdenum	ND		5.03	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Nickel	14.7		2.51	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Selenium	ND		3.77	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Silver	ND		2.51	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Thallium	ND		12.6	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Vanadium	30.0		5.03	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Magnesium	4330		25.1	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Zinc	86.1		5.03	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Manganese	330		5.03	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Potassium	4070		126	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2
Tin	ND		12.6	mg/Kg	☆	06/16/26 15:24	06/16/26 21:37	2

Client Sample ID: LSB-11-2
Date Collected: 06/09/26 08:50
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11600		12.7	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Antimony	ND		12.7	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Arsenic	7.75		3.80	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Barium	143		2.53	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Beryllium	ND		0.506	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Cadmium	0.532		0.506	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Bismuth	ND		9.27	mg/Kg	☆	06/18/26 09:03	06/18/26 11:57	2
Chromium	22.0		1.27	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Cobalt	8.63		2.53	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Copper	29.3		2.53	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Calcium	4890		38.0	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Lead	43.1		2.53	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Molybdenum	ND		5.06	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Nickel	17.1		2.53	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Selenium	ND		3.80	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2
Silver	ND		2.53	mg/Kg	☆	06/16/26 15:24	06/16/26 21:39	2

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Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 6010D - Metals (ICP) (Continued)

Client Sample ID: LSB-11-2
Date Collected: 06/09/26 08:50
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		12.7	mg/Kg	✱	06/16/26 15:24	06/16/26 21:39	2
Vanadium	40.1		5.06	mg/Kg	✱	06/16/26 15:24	06/16/26 21:39	2
Magnesium	5550		25.3	mg/Kg	✱	06/16/26 15:24	06/16/26 21:39	2
Zinc	213		5.06	mg/Kg	✱	06/16/26 15:24	06/16/26 21:39	2
Manganese	355		5.06	mg/Kg	✱	06/16/26 15:24	06/16/26 21:39	2
Potassium	4190		127	mg/Kg	✱	06/16/26 15:24	06/16/26 21:39	2
Tin	ND		12.7	mg/Kg	✱	06/16/26 15:24	06/16/26 21:39	2

Client Sample ID: LSB-9-3
Date Collected: 06/09/26 09:00
Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9130		9.54	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Antimony	ND		9.54	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Arsenic	13.5		2.86	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Barium	147		1.91	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Beryllium	ND		0.382	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Cadmium	ND		0.382	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Bismuth	ND		12.1	mg/Kg	✱	06/18/26 09:03	06/18/26 12:03	2
Chromium	18.6		0.954	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Cobalt	9.88		1.91	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Copper	32.1		1.91	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Calcium	6780		28.6	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Lead	42.2		1.91	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Molybdenum	ND		3.82	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Nickel	16.2		1.91	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Selenium	ND		2.86	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Silver	ND		1.91	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Thallium	ND		9.54	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Vanadium	33.5		3.82	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Magnesium	4850		19.1	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Zinc	370		3.82	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Manganese	321		3.82	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Potassium	4690		95.4	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2
Tin	ND		9.54	mg/Kg	✱	06/16/26 15:24	06/16/26 21:41	2

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 6020B - Metals (ICP/MS)

Client Sample ID: LSB-13-3-A-0.5

Date Collected: 06/09/26 08:15

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tellurium	ND		1.09	mg/Kg	☆	06/15/26 19:19	06/17/26 16:57	2

Client Sample ID: LSB-14-2

Date Collected: 06/09/26 08:25

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tellurium	ND		0.925	mg/Kg	☆	06/15/26 19:19	06/17/26 16:59	2

Client Sample ID: LSB-1-1

Date Collected: 06/09/26 08:40

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tellurium	ND		1.03	mg/Kg	☆	06/15/26 19:19	06/17/26 17:02	2

Client Sample ID: LSB-11-2

Date Collected: 06/09/26 08:50

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tellurium	ND		0.911	mg/Kg	☆	06/15/26 19:19	06/17/26 17:05	2

Client Sample ID: LSB-9-3

Date Collected: 06/09/26 09:00

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tellurium	ND		0.982	mg/Kg	☆	06/15/26 19:19	06/17/26 17:08	2

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: SW846 7471B - Mercury (CVAA)

Client Sample ID: LSB-13-3-A-0.5

Date Collected: 06/09/26 08:15

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.105	mg/Kg	☆	06/12/26 13:37	06/15/26 16:04	1

Client Sample ID: LSB-14-2

Date Collected: 06/09/26 08:25

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0941	mg/Kg	☆	06/12/26 13:37	06/15/26 16:09	1

Client Sample ID: LSB-1-1

Date Collected: 06/09/26 08:40

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0925	mg/Kg	☆	06/12/26 13:37	06/15/26 16:11	1

Client Sample ID: LSB-11-2

Date Collected: 06/09/26 08:50

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0856	mg/Kg	☆	06/12/26 13:37	06/15/26 16:13	1

Client Sample ID: LSB-9-3

Date Collected: 06/09/26 09:00

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0928		0.0923	mg/Kg	☆	06/12/26 13:37	06/15/26 16:15	1

Client Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

General Chemistry

Client Sample ID: LSB-13-3-A-0.5

Date Collected: 06/09/26 08:15

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	F1	23.5	mg/Kg	☼	06/17/26 20:35	06/19/26 00:19	25
Percent Moisture (ASTM D2216-92)	15.7		0.100	%			06/11/26 15:41	1
Percent Solids (ASTM D2216-92)	84.3		0.100	%			06/11/26 15:41	1

Client Sample ID: LSB-14-2

Date Collected: 06/09/26 08:25

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND		8.67	mg/Kg	☼	06/17/26 20:35	06/19/26 00:20	10
Percent Moisture (ASTM D2216-92)	7.75		0.100	%			06/11/26 15:41	1
Percent Solids (ASTM D2216-92)	92.3		0.100	%			06/11/26 15:41	1

Client Sample ID: LSB-1-1

Date Collected: 06/09/26 08:40

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND		8.70	mg/Kg	☼	06/17/26 20:35	06/19/26 00:21	10
Percent Moisture (ASTM D2216-92)	8.08		0.100	%			06/11/26 15:41	1
Percent Solids (ASTM D2216-92)	91.9		0.100	%			06/11/26 15:41	1

Client Sample ID: LSB-11-2

Date Collected: 06/09/26 08:50

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND		8.61	mg/Kg	☼	06/17/26 20:35	06/19/26 00:22	10
Percent Moisture (ASTM D2216-92)	6.37		0.100	%			06/11/26 15:41	1
Percent Solids (ASTM D2216-92)	93.6		0.100	%			06/11/26 15:41	1

Client Sample ID: LSB-9-3

Date Collected: 06/09/26 09:00

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND		8.94	mg/Kg	☼	06/17/26 20:35	06/19/26 00:23	10
Percent Moisture (ASTM D2216-92)	9.76		0.100	%			06/11/26 15:41	1
Percent Solids (ASTM D2216-92)	90.2		0.100	%			06/11/26 15:41	1

Surrogate Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8270E SIM - PAHs (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (22-130)	NBZ (20-145)	TPHd14 (33-147)
570-283115-1	LSB-13-3-A-0.5	72	63	79
570-283115-1 MS	LSB-13-3-A-0.5	68	57	70
570-283115-1 MSD	LSB-13-3-A-0.5	73	77	80
570-283115-2	LSB-14-2	80	61	86
570-283115-3	LSB-1-1	71	64	76
570-283115-4	LSB-11-2	86	76	91
570-283115-5	LSB-9-3	72	68	80
LCS 570-754367/2-A	Lab Control Sample	69	70	85
LCSD 570-754367/3-A	Lab Control Sample Dup	67	67	84
MB 570-754367/1-A	Method Blank	67	72	85

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		37TCDD (35-197)	
570-283115-1	LSB-13-3-A-0.5	87	
570-283115-1 - RE	LSB-13-3-A-0.5	97	
570-283115-2	LSB-14-2	89	
570-283115-2 - RE	LSB-14-2	89	
570-283115-3	LSB-1-1	94	
570-283115-3 - RE	LSB-1-1	93	
570-283115-4	LSB-11-2	88	
570-283115-4 - RE	LSB-11-2	90	
570-283115-5	LSB-9-3	91	
570-283115-5 - RE	LSB-9-3	92	
LCS 320-922067/2-A	Lab Control Sample	90	
LCS 320-922716/2-A	Lab Control Sample	94	
LCSD 320-922067/3-A	Lab Control Sample Dup	88	
LCSD 320-922716/3-A	Lab Control Sample Dup	91	
MB 320-922067/1-A	Method Blank	87	
MB 320-922716/1-A	Method Blank	93	

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	TCDF (40-135)	PeCDD (40-135)	PeCDF (40-135)	PeCF (40-135)	HxCDD (40-135)	HxDD (40-135)	HxCDF (40-135)
570-283115-1	LSB-13-3-A-0.5	61	64	47	48	52	47	50	50
570-283115-2	LSB-14-2	46	54	31 *5-	35 *5-	36 *5-	21 *5-	21 *5-	26 *5-
570-283115-3	LSB-1-1	76	76	66	68	69	70	75	77
570-283115-4	LSB-11-2	74	72	64	64	65	65	70	71
570-283115-5	LSB-9-3	71	70	62	63	64	65	72	72
LCS 320-922067/2-A	Lab Control Sample	79	76	69	69	70	73	76	81
LCSD 320-922067/3-A	Lab Control Sample Dup	75	72	67	65	67	71	74	79
MB 320-922067/1-A	Method Blank	81	80	72	72	72	76	80	85
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HxDF (40-135)	13CHxCF (40-135)	HxCF (40-135)	HpCDF (40-135)	HpCDF2 (40-135)	OCDD (40-135)	OCDF (40-135)	
570-283115-1	LSB-13-3-A-0.5	49	51	61	31 *5-	38 *5-	27 *5-	34 *5-	
570-283115-2	LSB-14-2	24 *5-	23 *5-	37 *5-	8 *5-	15 *5-	5 *5-	8 *5-	
570-283115-3	LSB-1-1	78	82	91	56	61	49	60	
570-283115-4	LSB-11-2	71	76	83	52	54	45	55	
570-283115-5	LSB-9-3	74	78	83	57	56	52	61	
LCS 320-922067/2-A	Lab Control Sample	81	88	92	67	62	61	69	
LCSD 320-922067/3-A	Lab Control Sample Dup	80	84	89	66	62	60	68	
MB 320-922067/1-A	Method Blank	83	89	96	69	64	62	71	
Surrogate Legend									
TCDD = 13C-2,3,7,8-TCDD									
TCDF = 13C-2,3,7,8-TCDF									
PeCDD = 13C-1,2,3,7,8-PeCDD									
PeCDF = 13C-1,2,3,7,8-PeCDF									
PeCF = 13C-2,3,4,7,8-PeCDF									
HxCDD = 13C-1,2,3,4,7,8-HxCDD									
HxDD = 13C-1,2,3,6,7,8-HxCDD									
HxCDF = 13C-1,2,3,4,7,8-HxCDF									
HxDF = 13C-1,2,3,6,7,8-HxCDF									
13CHxCF = 13C-2,3,4,6,7,8-HxCDF									
HxCF = 13C-1,2,3,7,8,9-HxCDF									
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF									
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF									
OCDD = 13C-OCDD									
OCDF = 13C-OCDF									

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HpCDD (40-135)							
570-283115-1 - RE	LSB-13-3-A-0.5	71							
570-283115-2 - RE	LSB-14-2	44							
570-283115-3 - RE	LSB-1-1	26 q *5-							
570-283115-4 - RE	LSB-11-2	94							
570-283115-5 - RE	LSB-9-3	86							
LCS 320-922716/2-A	Lab Control Sample	106							
LCSD 320-922716/3-A	Lab Control Sample Dup	89							

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Isotope Dilution Summary

Client: Langan Engineering & Environmental Services LLC

Job ID: 570-283115-1

Project/Site: Palm Elementary (HLPUSD) / 721066701

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Matrix: Solid

Prep Type: Total/NA

			Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	HpCDD (40-135)										
MB 320-922716/1-A	Method Blank	107										
Surrogate Legend												
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD												

QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8270E SIM - PAHs (GC/MS SIM)

Lab Sample ID: MB 570-754367/1-A

Matrix: Solid

Analysis Batch: 755897

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 754367

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
2-Methylnaphthalene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Acenaphthene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Acenaphthylene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Anthracene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Benzo[g,h,i]perylene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Benzo[k]fluoranthene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Benzo[a]anthracene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Benzo[a]pyrene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Benzo[b]fluoranthene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Chrysene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Dibenz(a,h)anthracene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Fluoranthene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Fluorene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Indeno[1,2,3-cd]pyrene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Naphthalene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Phenanthrene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1
Pyrene	ND		0.020	mg/Kg		06/15/26 13:16	06/18/26 00:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		22 - 130	06/15/26 13:16	06/18/26 00:35	1
Nitrobenzene-d5 (Surr)	72		20 - 145	06/15/26 13:16	06/18/26 00:35	1
p-Terphenyl-d14 (Surr)	85		33 - 147	06/15/26 13:16	06/18/26 00:35	1

Lab Sample ID: LCS 570-754367/2-A

Matrix: Solid

Analysis Batch: 755897

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 754367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.00	0.8014		mg/Kg		80	54 - 132
2-Methylnaphthalene	1.00	0.7653		mg/Kg		77	50 - 127
Acenaphthene	1.00	0.7045		mg/Kg		70	53 - 125
Acenaphthylene	1.00	0.6829		mg/Kg		68	50 - 123
Anthracene	1.00	0.7818		mg/Kg		78	50 - 132
Benzo[g,h,i]perylene	1.00	0.7185		mg/Kg		72	50 - 130
Benzo[k]fluoranthene	1.00	0.7283		mg/Kg		73	49 - 150
Benzo[a]anthracene	1.00	0.7695		mg/Kg		77	50 - 133
Benzo[a]pyrene	1.00	0.7446		mg/Kg		74	50 - 134
Benzo[b]fluoranthene	1.00	0.7217		mg/Kg		72	50 - 142
Chrysene	1.00	0.7742		mg/Kg		77	51 - 129
Dibenz(a,h)anthracene	1.00	0.8194		mg/Kg		82	50 - 133
Fluoranthene	1.00	0.7176		mg/Kg		72	55 - 127
Fluorene	1.00	0.7284		mg/Kg		73	55 - 127
Indeno[1,2,3-cd]pyrene	1.00	0.7594		mg/Kg		76	50 - 148
Naphthalene	1.00	0.7184		mg/Kg		72	51 - 129
Phenanthrene	1.00	0.7601		mg/Kg		76	50 - 122
Pyrene	1.00	0.8108		mg/Kg		81	50 - 134

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QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8270E SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: LCS 570-754367/2-A

Matrix: Solid

Analysis Batch: 755897

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 754367

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	69		22 - 130
Nitrobenzene-d5 (Surr)	70		20 - 145
p-Terphenyl-d14 (Surr)	85		33 - 147

Lab Sample ID: LCSD 570-754367/3-A

Matrix: Solid

Analysis Batch: 755897

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 754367

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.00	0.7707		mg/Kg		77	54 - 132	4	20
2-Methylnaphthalene	1.00	0.7382		mg/Kg		74	50 - 127	4	20
Acenaphthene	1.00	0.6844		mg/Kg		68	53 - 125	3	20
Acenaphthylene	1.00	0.6686		mg/Kg		67	50 - 123	2	20
Anthracene	1.00	0.7841		mg/Kg		78	50 - 132	0	20
Benzo[g,h,i]perylene	1.00	0.7245		mg/Kg		72	50 - 130	1	20
Benzo[k]fluoranthene	1.00	0.7375		mg/Kg		74	49 - 150	1	20
Benzo[a]anthracene	1.00	0.7607		mg/Kg		76	50 - 133	1	20
Benzo[a]pyrene	1.00	0.7505		mg/Kg		75	50 - 134	1	20
Benzo[b]fluoranthene	1.00	0.7388		mg/Kg		74	50 - 142	2	20
Chrysene	1.00	0.7606		mg/Kg		76	51 - 129	2	20
Dibenz[a,h]anthracene	1.00	0.8278		mg/Kg		83	50 - 133	1	20
Fluoranthene	1.00	0.7236		mg/Kg		72	55 - 127	1	20
Fluorene	1.00	0.7064		mg/Kg		71	55 - 127	3	20
Indeno[1,2,3-cd]pyrene	1.00	0.7242		mg/Kg		72	50 - 148	5	20
Naphthalene	1.00	0.6889		mg/Kg		69	51 - 129	4	20
Phenanthrene	1.00	0.7524		mg/Kg		75	50 - 122	1	20
Pyrene	1.00	0.7990		mg/Kg		80	50 - 134	1	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	67		22 - 130
Nitrobenzene-d5 (Surr)	67		20 - 145
p-Terphenyl-d14 (Surr)	84		33 - 147

Lab Sample ID: 570-283115-1 MS

Matrix: Solid

Analysis Batch: 756119

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 754367

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	ND		1.17	0.8201		mg/Kg	✱	70	34 - 136
2-Methylnaphthalene	ND		1.17	0.8242		mg/Kg	✱	70	29 - 137
Acenaphthene	ND		1.17	0.7671		mg/Kg	✱	65	29 - 137
Acenaphthylene	ND		1.17	0.8558		mg/Kg	✱	73	29 - 131
Anthracene	ND		1.17	0.7857		mg/Kg	✱	67	26 - 134
Benzo[g,h,i]perylene	ND		1.17	0.8167		mg/Kg	✱	70	20 - 148
Benzo[k]fluoranthene	ND		1.17	0.7719		mg/Kg	✱	66	28 - 148
Benzo[a]anthracene	ND		1.17	0.8573		mg/Kg	✱	73	24 - 150
Benzo[a]pyrene	ND		1.17	0.8336		mg/Kg	✱	71	29 - 149
Benzo[b]fluoranthene	ND		1.17	0.8978		mg/Kg	✱	77	21 - 153

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QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8270E SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: 570-283115-1 MS

Matrix: Solid

Analysis Batch: 756119

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 754367

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chrysene	ND		1.17	0.8620		mg/Kg	✱	73	25 - 145
Dibenz(a,h)anthracene	ND		1.17	0.8673		mg/Kg	✱	74	20 - 132
Fluoranthene	ND		1.17	0.8129		mg/Kg	✱	69	20 - 151
Fluorene	ND		1.17	0.8290		mg/Kg	✱	71	36 - 132
Indeno[1,2,3-cd]pyrene	ND		1.17	1.065		mg/Kg	✱	91	20 - 154
Naphthalene	ND		1.17	0.6986		mg/Kg	✱	60	20 - 150
Phenanthrene	ND		1.17	0.7991		mg/Kg	✱	68	20 - 144
Pyrene	ND		1.17	0.8104		mg/Kg	✱	69	20 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	68		22 - 130
Nitrobenzene-d5 (Surr)	57		20 - 145
p-Terphenyl-d14 (Surr)	70		33 - 147

Lab Sample ID: 570-283115-1 MSD

Matrix: Solid

Analysis Batch: 756119

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 754367

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	ND		1.17	1.035		mg/Kg	✱	89	34 - 136	23	29
2-Methylnaphthalene	ND		1.17	0.9493		mg/Kg	✱	81	29 - 137	14	31
Acenaphthene	ND		1.17	0.8218		mg/Kg	✱	70	29 - 137	7	28
Acenaphthylene	ND		1.17	0.9281		mg/Kg	✱	79	29 - 131	8	32
Anthracene	ND		1.17	0.8481		mg/Kg	✱	72	26 - 134	8	27
Benzo[g,h,i]perylene	ND		1.17	0.8850		mg/Kg	✱	76	20 - 148	8	27
Benzo[k]fluoranthene	ND		1.17	0.8596		mg/Kg	✱	73	28 - 148	11	26
Benzo[a]anthracene	ND		1.17	0.9618		mg/Kg	✱	82	24 - 150	11	24
Benzo[a]pyrene	ND		1.17	0.9543		mg/Kg	✱	82	29 - 149	13	22
Benzo[b]fluoranthene	ND		1.17	1.010		mg/Kg	✱	86	21 - 153	12	26
Chrysene	ND		1.17	0.9391		mg/Kg	✱	80	25 - 145	9	28
Dibenz(a,h)anthracene	ND		1.17	0.8743		mg/Kg	✱	75	20 - 132	1	26
Fluoranthene	ND		1.17	0.8708		mg/Kg	✱	74	20 - 151	7	26
Fluorene	ND		1.17	0.9039		mg/Kg	✱	77	36 - 132	9	27
Indeno[1,2,3-cd]pyrene	ND		1.17	1.151		mg/Kg	✱	98	20 - 154	8	25
Naphthalene	ND		1.17	0.9034		mg/Kg	✱	77	20 - 150	26	33
Phenanthrene	ND		1.17	0.8720		mg/Kg	✱	75	20 - 144	9	27
Pyrene	ND		1.17	0.9301		mg/Kg	✱	80	20 - 150	14	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	73		22 - 130
Nitrobenzene-d5 (Surr)	77		20 - 145
p-Terphenyl-d14 (Surr)	80		33 - 147

QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-922067/1-A

Matrix: Solid

Analysis Batch: 922294

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 922067

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
2,3,7,8-TCDF	ND		1.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,7,8-PeCDD	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,7,8-PeCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
2,3,4,7,8-PeCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,4,7,8-HxCDD	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,6,7,8-HxCDD	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,7,8,9-HxCDD	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,4,7,8-HxCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,6,7,8-HxCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,7,8,9-HxCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
2,3,4,6,7,8-HxCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,4,6,7,8-HpCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
1,2,3,4,7,8,9-HpCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
OCDD	ND		10		pg/g		06/16/26 10:21	06/18/26 08:45	1
OCDF	ND		10		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total TCDD	ND		1.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total TCDF	ND		1.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total PeCDD	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total PeCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total HxCDD	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total HxCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total HpCDD	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1
Total HpCDF	ND		5.0		pg/g		06/16/26 10:21	06/18/26 08:45	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	81		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-2,3,7,8-TCDF	80		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,7,8-PeCDD	72		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,7,8-PeCDF	72		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-2,3,4,7,8-PeCDF	72		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,4,7,8-HxCDD	76		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,6,7,8-HxCDD	80		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,4,7,8-HxCDF	85		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,6,7,8-HxCDF	83		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-2,3,4,6,7,8-HxCDF	89		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,7,8,9-HxCDF	96		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,4,6,7,8-HpCDF	69		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-1,2,3,4,7,8,9-HpCDF	64		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-OCDD	62		40 - 135	06/16/26 10:21	06/18/26 08:45	1
13C-OCDF	71		40 - 135	06/16/26 10:21	06/18/26 08:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	87		35 - 197	06/16/26 10:21	06/18/26 08:45	1

QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-922067/2-A

Matrix: Solid

Analysis Batch: 922294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 922067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,3,7,8-TCDD	20.0	16.42		pg/g		82	73 - 141
2,3,7,8-TCDF	20.0	18.09		pg/g		90	71 - 153
1,2,3,7,8-PeCDD	100	84.39		pg/g		84	77 - 126
1,2,3,7,8-PeCDF	100	89.47		pg/g		89	72 - 128
2,3,4,7,8-PeCDF	100	86.93		pg/g		87	72 - 127
1,2,3,4,7,8-HxCDD	100	89.78		pg/g		90	73 - 126
1,2,3,6,7,8-HxCDD	100	94.51		pg/g		95	76 - 142
1,2,3,7,8,9-HxCDD	100	93.25		pg/g		93	70 - 136
1,2,3,4,7,8-HxCDF	100	90.34		pg/g		90	73 - 127
1,2,3,6,7,8-HxCDF	100	91.38		pg/g		91	77 - 126
1,2,3,7,8,9-HxCDF	100	97.88		pg/g		98	77 - 125
2,3,4,6,7,8-HxCDF	100	90.66		pg/g		91	77 - 126
1,2,3,4,6,7,8-HpCDF	100	89.60		pg/g		90	78 - 138
1,2,3,4,7,8,9-HpCDF	100	90.46		pg/g		90	76 - 123
OCDD	200	198.5		pg/g		99	76 - 136
OCDF	200	175.5		pg/g		88	75 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	79		40 - 135
13C-2,3,7,8-TCDF	76		40 - 135
13C-1,2,3,7,8-PeCDD	69		40 - 135
13C-1,2,3,7,8-PeCDF	69		40 - 135
13C-2,3,4,7,8-PeCDF	70		40 - 135
13C-1,2,3,4,7,8-HxCDD	73		40 - 135
13C-1,2,3,6,7,8-HxCDD	76		40 - 135
13C-1,2,3,4,7,8-HxCDF	81		40 - 135
13C-1,2,3,6,7,8-HxCDF	81		40 - 135
13C-2,3,4,6,7,8-HxCDF	88		40 - 135
13C-1,2,3,7,8,9-HxCDF	92		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	67		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	62		40 - 135
13C-OCDD	61		40 - 135
13C-OCDF	69		40 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	90		35 - 197

Lab Sample ID: LCSD 320-922067/3-A

Matrix: Solid

Analysis Batch: 922294

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 922067

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,3,7,8-TCDD	20.0	16.03		pg/g		80	73 - 141	2	20
2,3,7,8-TCDF	20.0	17.91		pg/g		90	71 - 153	1	20
1,2,3,7,8-PeCDD	100	80.93		pg/g		81	77 - 126	4	20
1,2,3,7,8-PeCDF	100	86.71		pg/g		87	72 - 128	3	20
2,3,4,7,8-PeCDF	100	84.51		pg/g		85	72 - 127	3	20
1,2,3,4,7,8-HxCDD	100	87.26		pg/g		87	73 - 126	3	20

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QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-922067/3-A

Matrix: Solid

Analysis Batch: 922294

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 922067

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,3,6,7,8-HxCDD	100	91.02		pg/g		91	76 - 142	4	20
1,2,3,7,8,9-HxCDD	100	89.10		pg/g		89	70 - 136	5	20
1,2,3,4,7,8-HxCDF	100	86.10		pg/g		86	73 - 127	5	20
1,2,3,6,7,8-HxCDF	100	86.41		pg/g		86	77 - 126	6	20
1,2,3,7,8,9-HxCDF	100	91.91		pg/g		92	77 - 125	6	20
2,3,4,6,7,8-HxCDF	100	87.18		pg/g		87	77 - 126	4	20
1,2,3,4,6,7,8-HpCDF	100	84.27		pg/g		84	78 - 138	6	20
1,2,3,4,7,8,9-HpCDF	100	84.90		pg/g		85	76 - 123	6	20
OCDD	200	186.5		pg/g		93	76 - 136	6	20
OCDF	200	166.3		pg/g		83	75 - 130	5	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C-2,3,7,8-TCDD	75		40 - 135
13C-2,3,7,8-TCDF	72		40 - 135
13C-1,2,3,7,8-PeCDD	67		40 - 135
13C-1,2,3,7,8-PeCDF	65		40 - 135
13C-2,3,4,7,8-PeCDF	67		40 - 135
13C-1,2,3,4,7,8-HxCDD	71		40 - 135
13C-1,2,3,6,7,8-HxCDD	74		40 - 135
13C-1,2,3,4,7,8-HxCDF	79		40 - 135
13C-1,2,3,6,7,8-HxCDF	80		40 - 135
13C-2,3,4,6,7,8-HxCDF	84		40 - 135
13C-1,2,3,7,8,9-HxCDF	89		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	66		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	62		40 - 135
13C-OCDD	60		40 - 135
13C-OCDF	68		40 - 135

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
37Cl4-2,3,7,8-TCDD	88		35 - 197

Lab Sample ID: MB 320-922716/1-A

Matrix: Solid

Analysis Batch: 923318

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 922716

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	ND		5.0		pg/g		06/19/26 07:40	06/24/26 00:28	1
Total HpCDD	ND		5.0		pg/g		06/19/26 07:40	06/24/26 00:28	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	107		40 - 135				06/19/26 07:40	06/24/26 00:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	93		35 - 197				06/19/26 07:40	06/24/26 00:28	1

QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-922716/2-A

Matrix: Solid

Analysis Batch: 923318

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 922716

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
1,2,3,4,6,7,8-HpCDD			100	102.1		pg/g		102	79 - 121		
		LCS	LCS								
Isotope Dilution	%Recovery	Qualifier	Limits								
13C-1,2,3,4,6,7,8-HpCDD	106		40 - 135								
		LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits								
37Cl4-2,3,7,8-TCDD	94		35 - 197								

Lab Sample ID: LCSD 320-922716/3-A

Matrix: Solid

Analysis Batch: 923318

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 922716

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2,3,4,6,7,8-HpCDD			100	84.21		pg/g	-	84	79 - 121	19	20
	LCSD	LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
13C-1,2,3,4,6,7,8-HpCDD	89		40 - 135								
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
37Cl4-2,3,7,8-TCDD	91		35 - 197								

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 570-755161/1-A

Matrix: Solid

Analysis Batch: 755448

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 755161

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.67	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Antimony	ND		9.67	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Arsenic	ND		2.90	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Barium	ND		1.93	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Beryllium	ND		0.387	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Cadmium	ND		0.387	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Chromium	ND		0.967	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Cobalt	ND		1.93	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Copper	ND		1.93	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Calcium	ND		29.0	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Lead	ND		1.93	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Molybdenum	ND		3.87	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Nickel	ND		1.93	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Selenium	ND		2.90	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Silver	ND		1.93	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Thallium	ND		9.67	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Vanadium	ND		3.87	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Magnesium	ND		19.3	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Zinc	ND		3.87	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Manganese	ND		3.87	mg/Kg		06/16/26 15:24	06/16/26 20:52	2

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QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 570-755161/1-A

Matrix: Solid

Analysis Batch: 755448

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 755161

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		96.7	mg/Kg		06/16/26 15:24	06/16/26 20:52	2
Tin	ND		9.67	mg/Kg		06/16/26 15:24	06/16/26 20:52	2

Lab Sample ID: LCS 570-755161/2-A

Matrix: Solid

Analysis Batch: 755448

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 755161

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	201	210.3		mg/Kg		104	80 - 120
Antimony	201	186.4		mg/Kg		93	80 - 120
Arsenic	201	193.4		mg/Kg		96	80 - 120
Barium	201	201.8		mg/Kg		100	80 - 120
Beryllium	201	195.8		mg/Kg		97	80 - 120
Cadmium	201	193.9		mg/Kg		96	80 - 120
Chromium	201	201.5		mg/Kg		100	80 - 120
Cobalt	201	199.1		mg/Kg		99	80 - 120
Copper	201	199.8		mg/Kg		99	80 - 120
Calcium	1010	1000		mg/Kg		99	80 - 120
Lead	201	201.6		mg/Kg		100	80 - 120
Molybdenum	201	213.9		mg/Kg		106	80 - 120
Nickel	201	197.9		mg/Kg		98	80 - 120
Selenium	201	171.6		mg/Kg		85	80 - 120
Silver	101	97.16		mg/Kg		96	80 - 120
Thallium	201	194.8		mg/Kg		97	80 - 120
Vanadium	201	201.0		mg/Kg		100	80 - 120
Magnesium	1010	982.0		mg/Kg		97	80 - 120
Zinc	201	191.3		mg/Kg		95	80 - 120
Manganese	201	201.5		mg/Kg		100	80 - 120
Potassium	2010	1921		mg/Kg		95	80 - 120
Tin	201	204.1		mg/Kg		101	80 - 120

Lab Sample ID: LCSD 570-755161/3-A

Matrix: Solid

Analysis Batch: 755448

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 755161

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	203	209.4		mg/Kg		103	80 - 120	0	20
Antimony	203	191.6		mg/Kg		94	80 - 120	3	20
Arsenic	203	194.5		mg/Kg		96	80 - 120	1	20
Barium	203	204.6		mg/Kg		101	80 - 120	1	20
Beryllium	203	198.6		mg/Kg		98	80 - 120	1	20
Cadmium	203	197.8		mg/Kg		97	80 - 120	2	20
Chromium	203	204.2		mg/Kg		101	80 - 120	1	20
Cobalt	203	201.8		mg/Kg		99	80 - 120	1	20
Copper	203	202.8		mg/Kg		100	80 - 120	2	20
Calcium	1020	1011		mg/Kg		100	80 - 120	1	20
Lead	203	204.1		mg/Kg		101	80 - 120	1	20
Molybdenum	203	217.4		mg/Kg		107	80 - 120	2	20
Nickel	203	200.7		mg/Kg		99	80 - 120	1	20

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QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-755161/3-A

Matrix: Solid

Analysis Batch: 755448

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 755161

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Selenium	203	174.6		mg/Kg		86	80 - 120		2	20
Silver	102	98.54		mg/Kg		97	80 - 120		1	20
Thallium	203	197.5		mg/Kg		97	80 - 120		1	20
Vanadium	203	204.3		mg/Kg		101	80 - 120		2	20
Magnesium	1020	1001		mg/Kg		99	80 - 120		2	20
Zinc	203	193.7		mg/Kg		95	80 - 120		1	20
Manganese	203	205.4		mg/Kg		101	80 - 120		2	20
Potassium	2030	1962		mg/Kg		97	80 - 120		2	20
Tin	203	207.2		mg/Kg		102	80 - 120		1	20

Lab Sample ID: MB 570-756140/1-A

Matrix: Solid

Analysis Batch: 756315

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 756140

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bismuth	ND		10.1	mg/Kg		06/18/26 09:03	06/18/26 11:37	2

Lab Sample ID: LCS 570-756140/2-A

Matrix: Solid

Analysis Batch: 756315

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 756140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Bismuth	193	191.5		mg/Kg		99	80 - 120	

Lab Sample ID: LCSD 570-756140/3-A

Matrix: Solid

Analysis Batch: 756315

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 756140

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Bismuth	197	191.4		mg/Kg		97	80 - 120		0	20

Lab Sample ID: 570-283115-1 MS

Matrix: Solid

Analysis Batch: 756315

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 756140

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	
Bismuth	ND		232	223.7		mg/Kg	✱	97	75 - 125	

Lab Sample ID: 570-283115-1 MSD

Matrix: Solid

Analysis Batch: 756315

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 756140

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec	
									Limits	
Bismuth	ND		233	231.1		mg/Kg	✱	99	75 - 125	3

QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 160-776133/1-A

Matrix: Solid

Analysis Batch: 776535

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 776133

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tellurium	ND		0.913	mg/Kg		06/15/26 19:19	06/17/26 13:59	2

Lab Sample ID: LCS 160-776133/2-A

Matrix: Solid

Analysis Batch: 776535

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 776133

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tellurium	9.95	8.751		mg/Kg		88	74 - 110

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 570-753414/1-A

Matrix: Solid

Analysis Batch: 754324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 753414

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0786	mg/Kg		06/12/26 13:37	06/15/26 15:12	1

Lab Sample ID: LCS 570-753414/2-A

Matrix: Solid

Analysis Batch: 754324

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 753414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.3738		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 570-753414/3-A

Matrix: Solid

Analysis Batch: 754324

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 753414

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.377	0.3898		mg/Kg		103	80 - 120	4	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 570-755967/1-A

Matrix: Solid

Analysis Batch: 756641

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 755967

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.806	mg/Kg		06/17/26 20:33	06/19/26 00:12	1

Lab Sample ID: LCS 570-755967/2-A

Matrix: Solid

Analysis Batch: 756641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 755967

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	20.0	19.66		mg/Kg		98	80 - 120

QC Sample Results

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSD 570-755967/3-A

Matrix: Solid

Analysis Batch: 756641

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 755967

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	20.0	20.02		mg/Kg		100	80 - 120	2	20

Lab Sample ID: 570-283115-1 MS

Matrix: Solid

Analysis Batch: 756641

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 755967

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND	F1	617	669.4		mg/Kg	✱	109	75 - 125		

Lab Sample ID: 570-283115-1 MSD

Matrix: Solid

Analysis Batch: 756641

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 755967

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND	F1	612	652.4		mg/Kg	✱	107	75 - 125	3	20

Lab Sample ID: 570-283115-1 MSI

Matrix: Solid

Analysis Batch: 756641

Client Sample ID: LSB-13-3-A-0.5

Prep Type: Total/NA

Prep Batch: 755967

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND	F1	1170	827.8	F1	mg/Kg	✱	71	75 - 125		

Method: D2216-92 - Percent Moisture

Lab Sample ID: MB 570-752979/1

Matrix: Solid

Analysis Batch: 752979

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	ND		0.100	%			06/11/26 15:41	1
Percent Solids	100.1		0.100	%			06/11/26 15:41	1

Lab Sample ID: 570-283115-4 DU

Matrix: Solid

Analysis Batch: 752979

Client Sample ID: LSB-11-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	6.37		3.770	F3	%		51	10
Percent Solids	93.6		96.23		%		3	10

QC Association Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

GC/MS Semi VOA

Prep Batch: 754367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	3546	
570-283115-2	LSB-14-2	Total/NA	Solid	3546	
570-283115-3	LSB-1-1	Total/NA	Solid	3546	
570-283115-4	LSB-11-2	Total/NA	Solid	3546	
570-283115-5	LSB-9-3	Total/NA	Solid	3546	
MB 570-754367/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-754367/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-754367/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-283115-1 MS	LSB-13-3-A-0.5	Total/NA	Solid	3546	
570-283115-1 MSD	LSB-13-3-A-0.5	Total/NA	Solid	3546	

Analysis Batch: 755897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-754367/1-A	Method Blank	Total/NA	Solid	8270E SIM	754367
LCS 570-754367/2-A	Lab Control Sample	Total/NA	Solid	8270E SIM	754367
LCSD 570-754367/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E SIM	754367

Analysis Batch: 756119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	8270E SIM	754367
570-283115-2	LSB-14-2	Total/NA	Solid	8270E SIM	754367
570-283115-3	LSB-1-1	Total/NA	Solid	8270E SIM	754367
570-283115-4	LSB-11-2	Total/NA	Solid	8270E SIM	754367
570-283115-5	LSB-9-3	Total/NA	Solid	8270E SIM	754367
570-283115-1 MS	LSB-13-3-A-0.5	Total/NA	Solid	8270E SIM	754367
570-283115-1 MSD	LSB-13-3-A-0.5	Total/NA	Solid	8270E SIM	754367

Specialty Organics

Prep Batch: 922067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	8290A	
570-283115-2	LSB-14-2	Total/NA	Solid	8290A	
570-283115-3	LSB-1-1	Total/NA	Solid	8290A	
570-283115-4	LSB-11-2	Total/NA	Solid	8290A	
570-283115-5	LSB-9-3	Total/NA	Solid	8290A	
MB 320-922067/1-A	Method Blank	Total/NA	Solid	8290A	
LCS 320-922067/2-A	Lab Control Sample	Total/NA	Solid	8290A	
LCSD 320-922067/3-A	Lab Control Sample Dup	Total/NA	Solid	8290A	

Analysis Batch: 922294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	8290A	922067
570-283115-2	LSB-14-2	Total/NA	Solid	8290A	922067
570-283115-3	LSB-1-1	Total/NA	Solid	8290A	922067
570-283115-4	LSB-11-2	Total/NA	Solid	8290A	922067
570-283115-5	LSB-9-3	Total/NA	Solid	8290A	922067
MB 320-922067/1-A	Method Blank	Total/NA	Solid	8290A	922067
LCS 320-922067/2-A	Lab Control Sample	Total/NA	Solid	8290A	922067
LCSD 320-922067/3-A	Lab Control Sample Dup	Total/NA	Solid	8290A	922067

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QC Association Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Specialty Organics

Prep Batch: 922716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1 - RE	LSB-13-3-A-0.5	Total/NA	Solid	8290A	
570-283115-2 - RE	LSB-14-2	Total/NA	Solid	8290A	
570-283115-3 - RE	LSB-1-1	Total/NA	Solid	8290A	
570-283115-4 - RE	LSB-11-2	Total/NA	Solid	8290A	
570-283115-5 - RE	LSB-9-3	Total/NA	Solid	8290A	
MB 320-922716/1-A	Method Blank	Total/NA	Solid	8290A	
LCS 320-922716/2-A	Lab Control Sample	Total/NA	Solid	8290A	
LCSD 320-922716/3-A	Lab Control Sample Dup	Total/NA	Solid	8290A	

Analysis Batch: 923318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1 - RE	LSB-13-3-A-0.5	Total/NA	Solid	8290A	922716
570-283115-2 - RE	LSB-14-2	Total/NA	Solid	8290A	922716
570-283115-3 - RE	LSB-1-1	Total/NA	Solid	8290A	922716
570-283115-4 - RE	LSB-11-2	Total/NA	Solid	8290A	922716
570-283115-5 - RE	LSB-9-3	Total/NA	Solid	8290A	922716
MB 320-922716/1-A	Method Blank	Total/NA	Solid	8290A	922716
LCS 320-922716/2-A	Lab Control Sample	Total/NA	Solid	8290A	922716
LCSD 320-922716/3-A	Lab Control Sample Dup	Total/NA	Solid	8290A	922716

Metals

Prep Batch: 753414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	7471B	
570-283115-2	LSB-14-2	Total/NA	Solid	7471B	
570-283115-3	LSB-1-1	Total/NA	Solid	7471B	
570-283115-4	LSB-11-2	Total/NA	Solid	7471B	
570-283115-5	LSB-9-3	Total/NA	Solid	7471B	
MB 570-753414/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 570-753414/2-A	Lab Control Sample	Total/NA	Solid	7471B	
LCSD 570-753414/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	

Analysis Batch: 754324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	7471B	753414
570-283115-2	LSB-14-2	Total/NA	Solid	7471B	753414
570-283115-3	LSB-1-1	Total/NA	Solid	7471B	753414
570-283115-4	LSB-11-2	Total/NA	Solid	7471B	753414
570-283115-5	LSB-9-3	Total/NA	Solid	7471B	753414
MB 570-753414/1-A	Method Blank	Total/NA	Solid	7471B	753414
LCS 570-753414/2-A	Lab Control Sample	Total/NA	Solid	7471B	753414
LCSD 570-753414/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	753414

Prep Batch: 755161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	3051A	
570-283115-2	LSB-14-2	Total/NA	Solid	3051A	
570-283115-3	LSB-1-1	Total/NA	Solid	3051A	
570-283115-4	LSB-11-2	Total/NA	Solid	3051A	
570-283115-5	LSB-9-3	Total/NA	Solid	3051A	

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QC Association Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Metals (Continued)

Prep Batch: 755161 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-755161/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 570-755161/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 570-755161/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	

Analysis Batch: 755448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	6010D	755161
570-283115-2	LSB-14-2	Total/NA	Solid	6010D	755161
570-283115-3	LSB-1-1	Total/NA	Solid	6010D	755161
570-283115-4	LSB-11-2	Total/NA	Solid	6010D	755161
570-283115-5	LSB-9-3	Total/NA	Solid	6010D	755161
MB 570-755161/1-A	Method Blank	Total/NA	Solid	6010D	755161
LCS 570-755161/2-A	Lab Control Sample	Total/NA	Solid	6010D	755161
LCSD 570-755161/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	755161

Prep Batch: 756140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	3051A	
570-283115-2	LSB-14-2	Total/NA	Solid	3051A	
570-283115-3	LSB-1-1	Total/NA	Solid	3051A	
570-283115-4	LSB-11-2	Total/NA	Solid	3051A	
570-283115-5	LSB-9-3	Total/NA	Solid	3051A	
MB 570-756140/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 570-756140/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 570-756140/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	
570-283115-1 MS	LSB-13-3-A-0.5	Total/NA	Solid	3051A	
570-283115-1 MSD	LSB-13-3-A-0.5	Total/NA	Solid	3051A	

Analysis Batch: 756315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	6010D	756140
570-283115-2	LSB-14-2	Total/NA	Solid	6010D	756140
570-283115-3	LSB-1-1	Total/NA	Solid	6010D	756140
570-283115-4	LSB-11-2	Total/NA	Solid	6010D	756140
570-283115-5	LSB-9-3	Total/NA	Solid	6010D	756140
MB 570-756140/1-A	Method Blank	Total/NA	Solid	6010D	756140
LCS 570-756140/2-A	Lab Control Sample	Total/NA	Solid	6010D	756140
LCSD 570-756140/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	756140
570-283115-1 MS	LSB-13-3-A-0.5	Total/NA	Solid	6010D	756140
570-283115-1 MSD	LSB-13-3-A-0.5	Total/NA	Solid	6010D	756140

Prep Batch: 776133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	3050B	
570-283115-2	LSB-14-2	Total/NA	Solid	3050B	
570-283115-3	LSB-1-1	Total/NA	Solid	3050B	
570-283115-4	LSB-11-2	Total/NA	Solid	3050B	
570-283115-5	LSB-9-3	Total/NA	Solid	3050B	
MB 160-776133/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 160-776133/2-A	Lab Control Sample	Total/NA	Solid	3050B	

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QC Association Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Metals

Analysis Batch: 776535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	6020B	776133
570-283115-2	LSB-14-2	Total/NA	Solid	6020B	776133
570-283115-3	LSB-1-1	Total/NA	Solid	6020B	776133
570-283115-4	LSB-11-2	Total/NA	Solid	6020B	776133
570-283115-5	LSB-9-3	Total/NA	Solid	6020B	776133
MB 160-776133/1-A	Method Blank	Total/NA	Solid	6020B	776133
LCS 160-776133/2-A	Lab Control Sample	Total/NA	Solid	6020B	776133

General Chemistry

Analysis Batch: 752979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	D2216-92	
570-283115-2	LSB-14-2	Total/NA	Solid	D2216-92	
570-283115-3	LSB-1-1	Total/NA	Solid	D2216-92	
570-283115-4	LSB-11-2	Total/NA	Solid	D2216-92	
570-283115-5	LSB-9-3	Total/NA	Solid	D2216-92	
MB 570-752979/1	Method Blank	Total/NA	Solid	D2216-92	
570-283115-4 DU	LSB-11-2	Total/NA	Solid	D2216-92	

Prep Batch: 755967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	3060A	
570-283115-2	LSB-14-2	Total/NA	Solid	3060A	
570-283115-3	LSB-1-1	Total/NA	Solid	3060A	
570-283115-4	LSB-11-2	Total/NA	Solid	3060A	
570-283115-5	LSB-9-3	Total/NA	Solid	3060A	
MB 570-755967/1-A	Method Blank	Total/NA	Solid	3060A	
LCS 570-755967/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSD 570-755967/3-A	Lab Control Sample Dup	Total/NA	Solid	3060A	
570-283115-1 MS	LSB-13-3-A-0.5	Total/NA	Solid	3060A	
570-283115-1 MSD	LSB-13-3-A-0.5	Total/NA	Solid	3060A	
570-283115-1 MSI	LSB-13-3-A-0.5	Total/NA	Solid	3060A	

Analysis Batch: 756641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-283115-1	LSB-13-3-A-0.5	Total/NA	Solid	7196A	755967
570-283115-2	LSB-14-2	Total/NA	Solid	7196A	755967
570-283115-3	LSB-1-1	Total/NA	Solid	7196A	755967
570-283115-4	LSB-11-2	Total/NA	Solid	7196A	755967
570-283115-5	LSB-9-3	Total/NA	Solid	7196A	755967
MB 570-755967/1-A	Method Blank	Total/NA	Solid	7196A	755967
LCS 570-755967/2-A	Lab Control Sample	Total/NA	Solid	7196A	755967
LCSD 570-755967/3-A	Lab Control Sample Dup	Total/NA	Solid	7196A	755967
570-283115-1 MS	LSB-13-3-A-0.5	Total/NA	Solid	7196A	755967
570-283115-1 MSD	LSB-13-3-A-0.5	Total/NA	Solid	7196A	755967
570-283115-1 MSI	LSB-13-3-A-0.5	Total/NA	Solid	7196A	755967

Lab Chronicle

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Client Sample ID: LSB-13-3-A-0.5

Lab Sample ID: 570-283115-1

Date Collected: 06/09/26 08:15

Matrix: Solid

Date Received: 06/10/26 13:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.18 g	2 mL	754367	06/15/26 13:16	C5G3	EET CAL 4
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	756119	06/18/26 08:18	J7WE	EET CAL 4
Instrument ID: GCMSMM										
Total/NA	Prep	8290A			10.30 g	20.0 uL	922067	06/16/26 10:21	KSM	EET SAC
Total/NA	Analysis	8290A		1	0.5 uL	0.5 uL	922294	06/18/26 09:35	JJJ	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	8290A	RE		10.21 g	20.0 uL	922716	06/19/26 07:40	SJ	EET SAC
Total/NA	Analysis	8290A	RE	1	0.5 uL	0.5 uL	923318	06/24/26 01:17	JBC	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	3051A			0.4256 g	50 mL	755161	06/16/26 15:24	BE9L	EET CAL 4
Total/NA	Analysis	6010D		2	1.0 mL	1.0 mL	755448	06/16/26 21:31	K1UV	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3051A			0.4958 g	50 mL	756140	06/18/26 09:03	SXN8	EET CAL 4
Total/NA	Analysis	6010D		2			756315	06/18/26 11:42	3JBI	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3050B			0.5457 g	50 mL	776133	06/15/26 19:19	LAM	EET SL
Total/NA	Analysis	6020B		2			776535	06/17/26 16:57	CGB	EET SL
Instrument ID: ICPMS7850										
Total/NA	Prep	7471B			0.47 g	50 mL	753414	06/12/26 13:37	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			754324	06/15/26 16:04	JP8N	EET CAL 4
Instrument ID: HG9										
Total/NA	Prep	3060A			1.26 g	50 mL	755967	06/17/26 20:35	JXO4	EET CAL 4
Total/NA	Analysis	7196A		25	10 mL	10 mL	756641	06/19/26 00:19	JXO4	EET CAL 4
Instrument ID: UV8										
Total/NA	Analysis	D2216-92		1			752979	06/11/26 15:41	HTIK	EET CAL 4
Instrument ID: MOI6										

Client Sample ID: LSB-14-2

Lab Sample ID: 570-283115-2

Date Collected: 06/09/26 08:25

Matrix: Solid

Date Received: 06/10/26 13:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.02 g	2 mL	754367	06/15/26 13:16	C5G3	EET CAL 4
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	756119	06/18/26 08:41	J7WE	EET CAL 4
Instrument ID: GCMSMM										
Total/NA	Prep	8290A			10.22 g	20.0 uL	922067	06/16/26 10:21	KSM	EET SAC
Total/NA	Analysis	8290A		1	0.5 uL	0.5 uL	922294	06/18/26 10:25	JJJ	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	8290A	RE		10.36 g	20.0 uL	922716	06/19/26 07:40	SJ	EET SAC
Total/NA	Analysis	8290A	RE	1	0.5 uL	0.5 uL	923318	06/24/26 02:07	JBC	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	3051A			0.4150 g	50 mL	755161	06/16/26 15:24	BE9L	EET CAL 4
Total/NA	Analysis	6010D		2	1.0 mL	1.0 mL	755448	06/16/26 21:36	K1UV	EET CAL 4
Instrument ID: ICP12										

Eurofins Calscience

Lab Chronicle

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Client Sample ID: LSB-14-2

Lab Sample ID: 570-283115-2

Date Collected: 06/09/26 08:25

Matrix: Solid

Date Received: 06/10/26 13:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			0.5688 g	50 mL	756140	06/18/26 09:03	SXN8	EET CAL 4
Total/NA	Analysis	6010D		2			756315	06/18/26 11:53	3JBI	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3050B			0.5862 g	50 mL	776133	06/15/26 19:19	LAM	EET SL
Total/NA	Analysis	6020B		2			776535	06/17/26 16:59	CGB	EET SL
Instrument ID: ICPMS7850										
Total/NA	Prep	7471B			0.48 g	50 mL	753414	06/12/26 13:37	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			754324	06/15/26 16:09	JP8N	EET CAL 4
Instrument ID: HG9										
Total/NA	Prep	3060A			1.25 g	50 mL	755967	06/17/26 20:35	JXO4	EET CAL 4
Total/NA	Analysis	7196A		10	10 mL	10 mL	756641	06/19/26 00:20	JXO4	EET CAL 4
Instrument ID: UV8										
Total/NA	Analysis	D2216-92		1			752979	06/11/26 15:41	HTIK	EET CAL 4
Instrument ID: MOI6										

Client Sample ID: LSB-1-1

Lab Sample ID: 570-283115-3

Date Collected: 06/09/26 08:40

Matrix: Solid

Date Received: 06/10/26 13:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.02 g	2 mL	754367	06/15/26 13:16	C5G3	EET CAL 4
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	756119	06/18/26 09:03	J7WE	EET CAL 4
Instrument ID: GCMSMM										
Total/NA	Prep	8290A			10.04 g	20.0 uL	922067	06/16/26 10:21	KSM	EET SAC
Total/NA	Analysis	8290A		1	0.5 uL	0.5 uL	922294	06/18/26 11:14	JJB	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	8290A	RE		10.22 g	20.0 uL	922716	06/19/26 07:40	SJ	EET SAC
Total/NA	Analysis	8290A	RE	1	0.5 uL	0.5 uL	923318	06/24/26 02:57	JBC	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	3051A			0.4327 g	50 mL	755161	06/16/26 15:24	BE9L	EET CAL 4
Total/NA	Analysis	6010D		2	1.0 mL	1.0 mL	755448	06/16/26 21:37	K1UV	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3051A			0.5482 g	50 mL	756140	06/18/26 09:03	SXN8	EET CAL 4
Total/NA	Analysis	6010D		2			756315	06/18/26 11:55	3JBI	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3050B			0.5292 g	50 mL	776133	06/15/26 19:19	LAM	EET SL
Total/NA	Analysis	6020B		2			776535	06/17/26 17:02	CGB	EET SL
Instrument ID: ICPMS7850										
Total/NA	Prep	7471B			0.49 g	50 mL	753414	06/12/26 13:37	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			754324	06/15/26 16:11	JP8N	EET CAL 4
Instrument ID: HG9										
Total/NA	Prep	3060A			1.25 g	50 mL	755967	06/17/26 20:35	JXO4	EET CAL 4
Total/NA	Analysis	7196A		10	10 mL	10 mL	756641	06/19/26 00:21	JXO4	EET CAL 4
Instrument ID: UV8										

Eurofins Calscience

Lab Chronicle

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Client Sample ID: LSB-1-1

Date Collected: 06/09/26 08:40

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D2216-92		1			752979	06/11/26 15:41	HTIK	EET CAL 4

Client Sample ID: LSB-11-2

Date Collected: 06/09/26 08:50

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.09 g	2 mL	754367	06/15/26 13:16	C5G3	EET CAL 4
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	756119	06/18/26 09:26	J7WE	EET CAL 4
Instrument ID: GCMSMM										
Total/NA	Prep	8290A			10.42 g	20.0 uL	922067	06/16/26 10:21	KSM	EET SAC
Total/NA	Analysis	8290A		1	0.5 uL	0.5 uL	922294	06/18/26 12:04	JJB	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	8290A	RE		10.11 g	20.0 uL	922716	06/19/26 07:40	SJ	EET SAC
Total/NA	Analysis	8290A	RE	1	0.5 uL	0.5 uL	923318	06/24/26 03:46	JBC	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	3051A			0.4218 g	50 mL	755161	06/16/26 15:24	BE9L	EET CAL 4
Total/NA	Analysis	6010D		2	1.0 mL	1.0 mL	755448	06/16/26 21:39	K1UV	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3051A			0.5763 g	50 mL	756140	06/18/26 09:03	SXN8	EET CAL 4
Total/NA	Analysis	6010D		2			756315	06/18/26 11:57	3JBI	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3050B			0.5863 g	50 mL	776133	06/15/26 19:19	LAM	EET SL
Total/NA	Analysis	6020B		2			776535	06/17/26 17:05	CGB	EET SL
Instrument ID: ICPMS7850										
Total/NA	Prep	7471B			0.52 g	50 mL	753414	06/12/26 13:37	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			754324	06/15/26 16:13	JP8N	EET CAL 4
Instrument ID: HG9										
Total/NA	Prep	3060A			1.24 g	50 mL	755967	06/17/26 20:35	JXO4	EET CAL 4
Total/NA	Analysis	7196A		10	10 mL	10 mL	756641	06/19/26 00:22	JXO4	EET CAL 4
Instrument ID: UV8										
Total/NA	Analysis	D2216-92		1			752979	06/11/26 15:41	HTIK	EET CAL 4
Instrument ID: MOI6										

Client Sample ID: LSB-9-3

Date Collected: 06/09/26 09:00

Date Received: 06/10/26 13:56

Lab Sample ID: 570-283115-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.13 g	2 mL	754367	06/15/26 13:16	C5G3	EET CAL 4
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	756119	06/18/26 09:53	J7WE	EET CAL 4
Instrument ID: GCMSMM										
Total/NA	Prep	8290A			10.05 g	20.0 uL	922067	06/16/26 10:21	KSM	EET SAC
Total/NA	Analysis	8290A		1	0.5 uL	0.5 uL	922294	06/18/26 12:54	JJB	EET SAC
Instrument ID: DFS 4										

Eurofins Calscience

Lab Chronicle

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Client Sample ID: LSB-9-3

Lab Sample ID: 570-283115-5

Date Collected: 06/09/26 09:00

Matrix: Solid

Date Received: 06/10/26 13:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290A	RE		10.37 g	20.0 uL	922716	06/19/26 07:40	SJ	EET SAC
Total/NA	Analysis	8290A	RE	1	0.5 uL	0.5 uL	923318	06/24/26 04:36	JBC	EET SAC
Instrument ID: DFS 4										
Total/NA	Prep	3051A			0.5808 g	50 mL	755161	06/16/26 15:24	BE9L	EET CAL 4
Total/NA	Analysis	6010D		2	1.0 mL	1.0 mL	755448	06/16/26 21:41	K1UV	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3051A			0.4592 g	50 mL	756140	06/18/26 09:03	SXN8	EET CAL 4
Total/NA	Analysis	6010D		2			756315	06/18/26 12:03	3JBI	EET CAL 4
Instrument ID: ICP12										
Total/NA	Prep	3050B			0.5645 g	50 mL	776133	06/15/26 19:19	LAM	EET SL
Total/NA	Analysis	6020B		2			776535	06/17/26 17:08	CGB	EET SL
Instrument ID: ICPMS7850										
Total/NA	Prep	7471B			0.50 g	50 mL	753414	06/12/26 13:37	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			754324	06/15/26 16:15	JP8N	EET CAL 4
Instrument ID: HG9										
Total/NA	Prep	3060A			1.24 g	50 mL	755967	06/17/26 20:35	JXO4	EET CAL 4
Total/NA	Analysis	7196A		10	10 mL	10 mL	756641	06/19/26 00:23	JXO4	EET CAL 4
Instrument ID: UV8										
Total/NA	Analysis	D2216-92		1			752979	06/11/26 15:41	HTIK	EET CAL 4
Instrument ID: MOI6										

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-27
The following analytes are included in this report, but the laboratory is not certified by Oregon NELAP 4175. This list may include analytes for which the agency does not offer certification :			
Analysis Method	Prep Method	Matrix	Analyte
D2216-92		Solid	Percent Solids

Laboratory: Eurofins Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-26
Alaska (UST)	State	17-020	02-22-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-26
Arkansas DEQ	State	88-0691	05-17-27
California	State	2897	01-31-28
Colorado	State	CA00044	08-31-26
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-27
Illinois	NELAP	200060	03-31-27
Kansas	NELAP	E-10375	10-31-26
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-28
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	08-03-26
Minnesota	NELAP	006-999-474	12-31-26
Nevada	State	CA00044	07-31-26
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-27
Ohio	State	41252	01-29-27
Oregon	NELAP	4040	01-29-27
Texas	NELAP	T104704399-23-17	05-31-27
US Fish & Wildlife	US Federal Programs	A22139	04-30-27
USDA	US Federal Programs	525-23-59-76739	03-01-27
Utah	NELAP	CA000442023-16	02-28-27
Virginia	NELAP	460278	09-30-26
Washington	State	C581	05-06-27
West Virginia (DW)	State	9930C	01-31-27
West Virginia DEP	State	422	07-31-26
Wisconsin	State	998204680	08-31-26
Wyoming	State Program	8TMS-L	01-28-19 *

Laboratory: Eurofins St. Louis

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

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Calscience

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-26
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
Georgia (DW)	State	C061	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-26
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-26
Kentucky (DW)	State	KY90125	12-31-26
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-26
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-26
Maine	State	MO00054	03-05-28
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	06-17-26
New Hampshire	NELAP	2100	02-04-27
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	04-01-27
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-26
Oklahoma	NELAP	9997	12-31-26
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-27
Rhode Island	State	LAO00392	12-30-26
South Carolina	State	85002	06-30-26
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
Utah	NELAP	MO00054	07-31-26
Vermont	State	VT 87689	03-20-27
Virginia	NELAP	460230	09-30-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	10-31-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Calscience

Method Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Method	Method Description	Protocol	Laboratory
8270E SIM	PAHs (GC/MS SIM)	SW846	EET CAL 4
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	EET SAC
6010D	Metals (ICP)	SW846	EET CAL 4
6020B	Metals (ICP/MS)	SW846	EET SL
7471B	Mercury (CVAA)	SW846	EET CAL 4
7196A	Chromium, Hexavalent	SW846	EET CAL 4
D2216-92	Percent Moisture	ASTM	EET CAL 4
3050B	Preparation, Metals	SW846	EET SL
3051A	Preparation, Metals, Microwave Assisted	SW846	EET CAL 4
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4
7471B	Preparation, Mercury	SW846	EET CAL 4
8290A	Soxhlet Extraction of Dioxins and Furans	SW846	EET SAC

Protocol References:

ASTM = ASTM International

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

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Langan Engineering & Environmental Services LLC
Project/Site: Palm Elementary (HLPUSD) / 721066701

Job ID: 570-283115-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
570-283115-1	LSB-13-3-A-0.5	Solid	06/09/26 08:15	06/10/26 13:56	California
570-283115-2	LSB-14-2	Solid	06/09/26 08:25	06/10/26 13:56	California
570-283115-3	LSB-1-1	Solid	06/09/26 08:40	06/10/26 13:56	California
570-283115-4	LSB-11-2	Solid	06/09/26 08:50	06/10/26 13:56	California
570-283115-5	LSB-9-3	Solid	06/09/26 09:00	06/10/26 13:56	California

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Services LLC

Job Number: 570-283115-1

Login Number: 283115

List Source: Eurofins Calscience

List Number: 1

Creator: Khana, Piyush

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	Received same day of collection; chilling process has begun.
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 (excluding tests with immediate HTs)	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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (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: Langan Engineering & Environmental Services LLC

Job Number: 570-283115-1

Login Number: 283115

List Number: 3

Creator: Simmons, Jason C

List Source: Eurofins Sacramento

List Creation: 06/13/26 12:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	Seal
Sample custody seals, if present, are intact.	N/A	
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	2.7c
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	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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 $<6\text{mm}$ (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: Langan Engineering & Environmental Services LLC

Job Number: 570-283115-1

Login Number: 283115

List Number: 2

Creator: Padilla, Rico

List Source: Eurofins St. Louis

List Creation: 06/13/26 11:37 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 (excluding tests with immediate HTs)	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	