DOCKETED	
Docket Number:	24-OPT-04
Project Title:	Potentia-Viridi Battery Energy Storage System
TN #:	260792
Document Title:	DR Response 1 - Soil Sampling Report
Description:	Soil Sample report that summarizes the results of soil sampling at the project site.
Filer:	Ronelle Candia
Organization:	Dudek
Submitter Role:	Applicant Consultant
Submission Date:	12/23/2024 10:11:09 AM
Docketed Date:	12/23/2024

Attachment 8

Soil Sampling Report

TETRA TECH

Technical Memo

To:	Lauren McLeod and Kelene Strain, Capstone Infrastructure Corporation
From:	Mark Feldman, CHG CEG and Steven Grod, Tetra Tech, Inc.
Date:	December 16, 2024
Subject:	Soil Sampling Report, Potentia-Viridi Battery Energy Storage System, Alameda County, California
Project No.	117-372239-25001

1.0 INTRODUCTION AND BACKGROUND

The following technical memorandum summarizes the results of soil sampling at the proposed Potentia-Viridi Battery Energy Storage System project, located in Alameda County, California (the Subject Property). This memorandum addresses data request DR HAZ-1 and DR HAZ-2 from the document, *"Determination of Incomplete Application and Request for Information for the Potentia-Viridi Battery Energy Storage System (Docket No. 24-OPT-04),"* dated September 6, 2024, prepared by the California Energy Commission (CEC).

In a Phase I Environmental Site Assessment (ESA) performed for the Site (Tetra Tech, 2023), historical agricultural use of the Subject Property from at least 1940 to 1958 was identified as a business environmental risk. The ESA recommended that near-surface soils be sampled and analyzed for herbicide- and pesticide-related hazardous substances prior to being removed from the site for any purpose. This recommendation was carried forward to the permit application for the Potentia-Viridi facility as mitigation measure MM-HAZ-1, which included conducting the recommended soil testing after approval of the project and before the start of construction. Data requests DR HAZ-1 and DR HAZ-2 recommend that the proposed soil sampling be performed during CEC review of the application, to allow evaluation of impacts to construction workers and characterization of soils to be transported off-site.

This document provides the results of the soil sampling requested by the CEC.

2.0 SCOPE OF WORK

The scope of work for the soil sampling is defined in the project Soil Sampling and Analysis Plan (SSAP; Tetra Tech, 2024), and includes collecting four surface soil samples at the Subject Property, and analyzing those samples for organochlorine pesticides, chlorinated herbicides, and CAM 17 metals. A copy of the SSAP is provided in Attachment 1. The number and distribution of soil samples at the Subject Property was based on regulatory guidance developed by the California Department of Toxic Substances Control (DTSC) for sampling agricultural soils potentially impacted by pesticides and/or metals (DTSC, 2008). This guidance was intended for initial evaluation of agricultural properties being considered for new or expanded school sites, or for other projects where a change in land use could result in increased human exposure to agricultural soils.

3.0 FIELD INVESTIGATION

The field investigation was performed by Tetra Tech on November 4, 2024. A total of four soil samples, designated Tt B1 MUL to Tt B4 MUL were collected during field work. The sampling locations were found in the field using a global positioning system (GPS) application running on a smartphone.

The soil samples were collected between the surface and a depth of approximately six inches below ground surface using a metal trowel. Foreign material, including vegetation, larger roots, and rocks were removed as the samples were collected. The soil was placed directly into 8-ounce widemouth glass jars with Teflon-lined screw caps. The jars were labeled, placed in reclosable plastic ziplock-type bags, and stored in a cooler on ice pending shipment to the laboratory.

When sample collection was completed, the cooler containing the soil samples was packed with bubble wrap and additional ice in preparation for shipment to the laboratory. A completed chain-of-custody form placed in a plastic ziplock-type bag was taped to the inside of the cooler lid, and the cooler lid was closed and secured with packing tape. The samples were shipped via Federal Express for overnight delivery to Eurofins Calscience Laboratories of Tustin, California, a California State Water Resources Control Board-certified laboratory for analysis. All of the samples were analyzed for the following:

- Organochlorine pesticides using EPA Method SW8081A
- Chlorinated herbicides using EPA Method SW8151A
- CAM-17 metals using EPA Methods SW6020/7471A

4.0 RESULTS AND DISCUSSION

4.1 SOIL TYPES

Soils at all of the sampling locations consisted of dry grey-brown clayey loam. Surface vegetation consisted of wild grasses and abundant rootlets were noted in all of the samples. Desiccation cracks were noted at locations Tt B1 MUL and Tt B2 MUL, and small animal burrows were noted at locations Tt B2 MUL and Tt B3 MUL.

4.2 ANALYTICAL RESULTS

Analytical results for organochlorine pesticides, chlorinated herbicides, and CAM 17 metals are summarized in Table 1. A copy of the laboratory report is provided in Attachment 2. Results include the following:

- Organochlorine pesticides were not detected in any of the soil samples.
- Chlorinated herbicides detected in the soil samples included 2,4,5-T (detected at concentrations of 9.2 J and 13 micrograms per kilogram [µg/kg] in samples Tt B3 MUL and Tt B4 MUL, respectively), 2,4,5-TP (detected at a concentration of 14 µg/kg in sample Tt B1 MUL); Dicamba (detected at concentrations of 32 and 7.8 J µg/kg in samples in samples Tt B3 MUL and Tt B4 MUL, respectively), and Dichlorprop (detected at a concentration of 50 J µg/kg in sample Tt B3 MUL). (Note: the qualifier "J" indicates that the result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.)
- Up to 15 metals were detected in each of the soil samples.

4.2.1 Comparison with Human Health Screening Levels

Human health-based screening levels used for evaluating the data are provided in Table 1. The screening levels consist mainly of DTSC Human Health Risk Assessment Note 3 soil screening levels for commercial/industrial workers (DTSC-SLs; DTSC, 2022). For compounds where DTSC-SLs were not available, EPA Regional Screening Levels for soil for commercial/industrial workers (RSLs; EPA, 2024) were used for comparison. Commercial/industrial screening levels were selected for this evaluation because 1) they are consistent with the most sensitive receptors likely to be present at the

Subject Property; and 2) they are conservative with respect to other potential receptors, specifically construction workers. Naturally-occurring arsenic concentrations typically exceed human health screening levels; for this reason, the background threshold value of 12 mg/kg (DTSC, 2020) was used in place of the arsenic DTSC-SL.

Examination of Table 1 shows that the concentrations of all detected compounds were less than the screening levels, and that the analytical detection limits for all compounds that were not detected were also less than the screening levels.

With respect to the chlorinated herbicide detections, we note that all the detected herbicide concentrations are more than 5 orders of magnitude (*i.e.*, more than a factor of 100,000) less than the screening levels. The source of the detected herbicides is not known, but we speculate that they may be related to road maintenance activities.

With respect to the detections of metals, we note that metals occur naturally in soils, and that the detected concentrations are generally consistent with naturally-occurring metals concentrations in soils.

4.2.2 Comparison with Hazardous Waste Screening Levels

Screening levels for hazardous waste are also summarized in Table 1. The screening levels used are 10 times the California Soluble Threshold Limit Concentration (STLC) values. These values represent the lowest concentration of a compound that could potentially be classified as a hazardous waste in California based on soluble concentrations measured using the California Waste Extraction Test. These criteria are considered to be more conservative than California Total Threshold Limit Concentrations (TTLCs; California criteria for total rather than soluble concentrations), or criteria based on the federal Toxicity Characteristic Leaching Procedure (TCLP).

Examination of Table 1 shows that the concentrations of all detected compounds are less than the screening levels, and that the analytical detection limits for all compounds that were not detected are also less than the screening levels.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The conclusions of this investigation are as follows:

- Organochlorine pesticides were not detected in any of the soil samples.
- Low levels of four chlorinated herbicides (2,4,5-T, 2,4,5-TP, Dicamba, and Dichlorprop) were detected in three of the four soil samples. All of the detected concentrations were more than 5 orders of magnitude lower than the human health-based screening levels, where listed.
- The concentrations of CAM 17 metals other than arsenic were less than human health screening levels.
- Arsenic concentrations were less than the DTSC background value of 12 mg/kg.
- The detected concentrations of herbicides and metals in soil are not considered to be a health concern for commercial/industrial or construction workers.
- All results are well below California hazardous waste criteria, suggesting that soils exported from the Subject Property during construction will not require special handling or disposal.
- Based on the results of the soil sampling, historical agricultural use of the Subject Property from at least 1940 to 1958 is no longer considered to be a business environmental risk.

No further work is recommended at this time.

6.0 REFERENCES

CEC, 2024. *Determination of Incomplete Application and Request for Information for the Potentia-Viridi Battery Energy Storage System (Docket No. 24-OPT-04)*. September 6.

DTSC, 2008. *Interim Guidance for Sampling Agricultural Properties (Third Revision)*. August 7.

DTSC, 2020. *Human Health Risk Assessment (HHRA) Note Number 11, Southern California Ambient Arsenic Screening Level.* December 28.

DTSC, 2022. *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*. May.

EPA, 2024. *Regional Screening Levels (RSLs) – Generic Tables*. https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. May.

Tetra Tech, 2023. *Phase I Environmental Site Assessment, Undeveloped Land, 17257 Patterson Pass Road – Part of APN 99B-7890-002-04, Alameda County, California 95377*. August 7.

Tetra Tech, 2024. *Soil Sampling and Analysis Plan, Potentia-Viridi Battery Energy Storage System, Alameda County, California.* October 21.

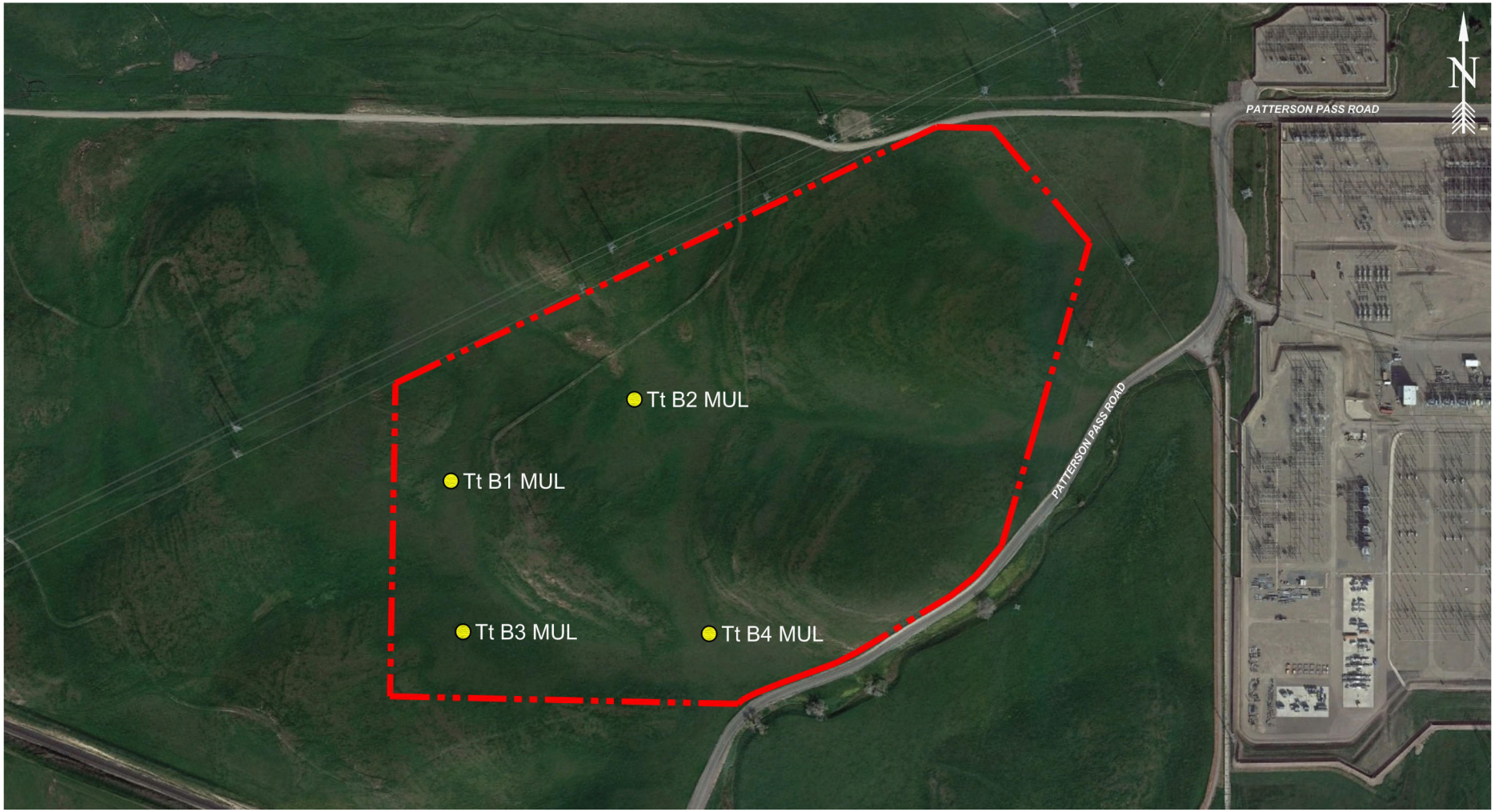
ATTACHMENTS

Figure 1 – Soil Sampling Locations

Table 1 – Summary of Analytical Results, Soil Samples

Appendix A – Soil Sampling and Analysis Plan

Appendix B – Laboratory Report



LEGEND

SUBJECT PROPERTY BOUNDARY

SOIL SAMPLING LOCATION AND DESIGNATION

Tt B1 MUL

0 500 1,000

SCALE (FEET)

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. BASE MAP AND SUBJECT PROPERTY BOUNDARIES DERIVED FROM AMERICAN LAND TITLE ASSOCIATION / NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (ALTA / NSPS) LAND TITLE SURVEY BY TETRA TECH (2023).

UNDEVELOPED LAND 17257 PATTERSON PASS ROAD PART OF APN 99B-7890-002-04 ALAMEDA COUNTY, CALIFORNIA 95377	TETRA TECH DECEMBER 16, 2024 TETRA TECH PROJECT NO. 117-372239-25001	SOIL SAMPLING LOCATIONS FIGURE 1

TABLE 1
Summary of Analytical Results
Soil Samples

Analyte	Screening Levels				Sample ID			
	Human Health		Hazardous Waste					
	Value	Reference	Value	Reference	Tt B1 MUL	Tt B2 MUL	Tt B3 MUL	Tt B4 MUL
Organochlorine Pesticides by EPA SW8081A (µg/kg)								
4,4'-DDD	6,200	DTSC-SL	1,000	10xSTLC	<0.71	<0.71	<0.72	<0.71
4,4'-DDE	9,300	DTSC-SL	1,000	10xSTLC	<0.68	<0.68	<0.69	<0.68
4,4'-DDT	7,100	DTSC-SL	1,000	10xSTLC	<1.2	<1.2	<1.2	<1.2
Aldrin	180	DTSC-SL	1,400	10xSTLC	<1.6	<1.6	<1.6	<1.6
alpha-BHC	360	RSL	--	--	<0.59	<0.59	<0.59	<0.59
alpha-Chlordane	6,100	DTSC-SL	2,500	10xSTLC	<0.56	<0.56	<0.56	<0.56
beta-BHC	1,300	RSL	--	--	<0.90	<0.90	<0.90	<0.90
Chlordane	6,100	DTSC-SL	2,500	10xSTLC	<4.1	<4.1	<4.1	<4.1
delta-BHC	49	RSL	--	--	<0.93	<0.93	<0.93	<0.93
Dieldrin	93	DTSC-SL	8,000	10xSTLC	<0.55	<0.55	<0.55	<0.55
Endosulfan I	6,000,000	DTSC-SL	--	--	<1.1	<1.1	<1.1	<1.1
Endosulfan II	6,000,000	DTSC-SL	--	--	<0.54	<0.54	<0.55	<0.54
Endosulfan sulfate	3,200,000	DTSC-SL	--	--	<0.63	<0.63	<0.63	<0.63
Endrin	160,000	DTSC-SL	200	10xSTLC	<0.67	<0.67	<0.67	<0.67
Endrin aldehyde	--	--	--	--	<3.3	<3.3	<3.3	<3.3
Endrin ketone	--	--	--	--	<0.90	<0.90	<0.90	<0.90
gamma-Chlordane	6,100	DTSC-SL	2,500	10xSTLC	<3.4	<3.4	<3.4	<3.4
gamma-BHC (Lindane)	800	RSL	4,000	10xSTLC	<0.51	<0.51	<0.51	<0.51
Heptachlor	630	DTSC-SL	4,700	10xSTLC	<0.60	<0.60	<0.60	<0.60
Heptachlor epoxide	330	DTSC-SL	--	--	<0.54	<0.54	<0.54	<0.54
Methoxychlor	2,600,000	DTSC-SL	100,000	10xSTLC	<1.2	<1.2	<1.2	<1.2
Toxaphene	1,200	DTSC-SL	5,000	10xSTLC	<15	<15	<15	<15
Chlorinated Herbicides by EPA SW8151A (µg/kg)								
2,4,5-T	5,300,000	DTSC-SL	--	--	<3.7	<3.7	**9.2 J**	**13**
2,4,5-TP (Silvex)	4,200,000	DTSC-SL	10,000	10xSTLC	**14**	<7.5	<7.6	<7.4
2,4-D	7,300,000	DTSC-SL	100,000	10xSTLC	<49	<49	<49	<48
2,4-DB	16,000,000	DTSC-SL	--	--	<100	<100	<100	<98
Dalapon	16,000,000	DTSC-SL	--	--	<73	<73	<73	<71
Dicamba	16,000,000	DTSC-SL	--	--	<4.8	<4.7	**32**	**7.8 J**
Dichlorprop	--	--	--	--	<50	<49	**50 J**	<48
Dinoseb	530,000	DTSC-SL	--	--	<59	<59	<59	<58
MCPA	260,000	DTSC-SL	--	--	<4,900	<4,900	<4,900	<4,800
MCPP	530,000	DTSC-SL	--	--	<6,700	<6,700	<6,700	<6,500
CAM-17 Metals by EPA SW6010/7471A (mg/kg)								
Antimony	470	RSL	150	10xSTLC	<0.214	<0.199	<0.201	<0.191
Arsenic	12	BKG	50	10xSTLC	**6.11**	**4.01**	**3.07**	**5.03**
Barium	220,000	RSL	1,000	10xSTLC	**365**	**279**	**243**	**211**
Beryllium	230	DTSC-SL	7.5	10xSTLC	**0.958**	**0.880**	**0.482 J**	**0.880**
Cadmium	79	DTSC-SL	10	10xSTLC	**0.0974 J**	**0.0746 J**	**0.101 J**	**0.0856 J**
Chromium	360,000	RSL	50	10xSTLC	**37.9**	**35.6**	**25.9**	**27.0**
Cobalt	350	RSL	800	10xSTLC	**14.4**	**13.8**	**10.4**	**13.6**
Copper	47,000	RSL	250	10xSTLC	**23.0**	**25.2**	**17.3**	**25.4**
Lead	500	DTSC-SL	50	10xSTLC	**10.1**	**11.6**	**13.5**	**12.8**
Mercury	4.4	DTSC-SL	2.0	10xSTLC	**0.0323 J**	**0.0369 J**	**0.0298 J**	**0.0359 J**
Molybdenum	5,800	RSL	3,500	10xSTLC	**1.45**	**0.633**	**0.861**	**0.674**
Nickel	11,000	DTSC-SL	200	10xSTLC	**29.0**	**29.9**	**18.8**	**24.9**
Selenium	5,800	RSL	10	10xSTLC	**2.16**	**2.73**	**1.82**	**2.76**

TABLE 1
Summary of Analytical Results
Soil Samples

Analyte	Screening Levels				Sample ID			
	Human Health		Hazardous Waste					
	Value	Reference	Value	Reference	Tt B1 MUL	Tt B2 MUL	Tt B3 MUL	Tt B4 MUL
Silver	5,800	RSL	50	10xSTLC	<0.542	<0.506	<0.511	<0.485
Thallium	12	RSL	70	10xSTLC	<0.168	**0.170 J**	<0.159	**0.202 J**
Vanadium	5,800	RSL	240	10xSTLC	**92.7**	**66.3**	**58.1**	**58.0**
Zinc	350,000	RSL	2,500	10xSTLC	**57.0**	**51.3**	**61.6**	**50.3**

Notes:
Screening levels for Chlordane, alpha-Chlordane, and gamma-Chlordane are for technical Chlordane.
Screening levels for Endosufan I and Endosulfan II are for undifferentiated Endosulfan.
Screening level for arsenic is based on background study for southern California (DTSC, 2020).
Screening level for cadmium is based on dietary intake.
Screening level for chromium is for chromium III soluble salts; chromium VI screening level is 6.3 mg/kg.
µg/kg: micrograms per kilogram.
mg/kg: milligrams per kilogram.
DTSC-SL: screening level from DTSC (2022).
RSL: screening level from EPA (2024).
BKG: screening level from DTSC (2020).
10xSTLC: ten times the California Soluble Threshold Limit Concentration.
Boldface type indicates analyte detected.
< indicates analyte not detected at concentration exceeding the indicated method detection limit.
"J" indicates that the result is less than the reporting limit but ≥ the method detection limit and the concentration is an approximate value.
-- indicates not available or not applicable.

APPENDIX A SOIL SAMPLING AND ANALYSIS PLAN

TETRA TECH

Technical Memo

To:	Lauren McLeod and Kelene Strain, Capstone Infrastructure Corporation
From:	Mark Feldman, CHG CEG and Steven Grod, Tetra Tech, Inc.
Date:	October 21, 2024
Subject:	Soil Sampling and Analysis Plan, Potentia-Viridi Battery Energy Storage System, Alameda County, California
Project No.	117-372239-25001

1.0 INTRODUCTION AND BACKGROUND

The following technical memorandum provides a soil sampling and analysis plan (SSAP) for the proposed Potentia-Viridi Battery Energy Storage System project, located in Alameda County, California. This plan addresses data request DR HAZ-2 from the document, *"Determination of Incomplete Application and Request for Information for the Potentia-Viridi Battery Energy Storage System (Docket No. 24-OPT-04),"* dated September 6, 2024, prepared by the California Energy Commission (CEC).

In a Phase I Environmental Site Assessment (ESA) performed for the Site (Tetra Tech, 2024), historical agricultural use of the Subject Property from at least 1940 to 1958 was identified as a business environmental risk. The ESA went on to recommend that near-surface soils be sampled and analyzed for herbicide- and pesticide-related hazardous substances prior to being removed from the site for any purpose. This recommendation was carried forward to the permit application for the Potentia-Viridi facility as mitigation measure MM-HAZ-1, which included conducting the recommended soil testing after approval of the project and before the start of construction. Data requests DR HAZ-1 and DR HAZ-2 request that the proposed soil sampling be performed during CEC review of the application, to allow evaluation of impacts to construction workers and characterization of soils to be transported off-site.

This document provides the SSAP for the soil sampling requested by the CEC. The results of the sampling will be provided in a subsequent technical memorandum.

2.0 SAMPLING RATIONALE

The SSAP is summarized in Table 1. The SSAP consists of collecting four soil samples at the approximate locations shown in Figure 1, and analysis of those samples for organochlorine pesticides, chlorinated herbicides, and CAM-17 metals per the California Administrative Manual. The number and distribution of soil samples across the Subject Property is based on regulatory guidance developed by the California Department of Toxic Substances Control (DTSC) for sampling agricultural soils potentially impacted by pesticides and/or metals (DTSC, 2008). This guidance was intended for initial evaluation of agricultural properties being considered for new or expanded school sites, or for other projects where a change in land use could result in increased human exposure to agricultural soils.

The DTSC guidance distinguishes between irrigated agricultural land used as orchards or for cultivation of row, fiber, or food crops, and other types of agricultural properties, such as grazing land or pasture, dry-farmed land, and land where agricultural use ceased prior to 1950. More extensive sampling is recommended for irrigated properties where pesticides are more likely to have been used; and less (or no) sampling is recommended for non-irrigated properties and other properties where pesticides are unlikely to have been used. The Subject Property is likely to have been dry farmed: evidence for this assertion includes the topography of the Subject Property, which consists of rolling terrain unsuitable

for irrigation; and the absence of irrigation wells, which would presumably be required to supply water for irrigation. For properties where there is uncertainty regarding dry farming, the DTSC guidance recommends limited sampling at a rate of four discrete samples per site, with one sample collected in each quadrant of the site.

The DTSC guidance recommends limiting laboratory analyses to organochlorine pesticides and arsenic. For the purpose of this SSAP, the broader suite of compounds requested by the CEC (organochlorine pesticides, chlorinated herbicides, and CAM-17 metals) will be analyzed.

3.0 METHODOLOGY

The following subsections describe the methods that will be used to conduct the soil sampling program.

3.1 SAMPLE LOCATIONS

The soil sampling locations will be identified in the field using a geographic positioning system (GPS) application running on a smartphone. This method is typically accurate to within 15 to 20 feet of the sampling location, which is adequate for the purpose of this SSAP.

3.2 SAMPLE COLLECTION

The following procedures will be used to collect soil samples for laboratory analysis:

- Samples will be collected with a scoop, spoon, or trowel made from a material suitable for environmental sampling, such as stainless steel, plastic, or aluminum. Sampling tools with chrome plating or painted surfaces will be avoided as they may introduce contaminants into the samples.
- All sampling tools will be decontaminated prior to each use as described below in Section 3.4.
- Foreign material overlying the sampling location, such as rocks or vegetation, will be removed with the sampling tool prior to soil sample collection.
- The sampling tool will then be used to collect a soil sample to a depth of 6 inches below ground surface. Multiple scoops may be necessary to achieve the desired sampling depth or sample volume.
- The sampled soil will be placed directly into widemouth glass jars with Teflon-lined screw caps provided by the laboratory. The jars will be closed immediately after being filled with soil.
- Any soil which is not placed into the container shall be returned to hole made during sample collection.

3.3 SAMPLE HANDLING AND DOCUMENTATION

After each soil sample has been collected, the sample containers will be labeled with the following information:

- Company name
- Project identifier (project name or project number)
- Sample ID
- Sampler's initials
- Date and time of sample collection

After labeling, the sample containers shall be placed in reclosable plastic ziplock-type bags and stored in a cooler on ice pending shipment to the laboratory.

Sampling activities will be documented in a field logbook or on preprinted field forms. At a minimum, documentation will include notes providing a chronologic description of the field activities, and a chain-of-custody form, which documents sample custody from the time of sample collection through delivery to the laboratory.

3.4 EQUIPMENT DECONTAMINATION

Equipment used for soil sampling shall be decontaminated prior to each use by scrubbing with a laboratory-grade detergent solution, followed by rinses with potable water and distilled water, and air drying.

3.5 SAMPLE SHIPMENT

Coolers used for sample shipment shall be prepared as follows:

- Check that samples are sealed in ziplock-type bags and placed upright in cooler, and that ice is placed in plastic bags.
- Add additional packing material, such as bubble wrap, around the samples to prevent container breakage during shipping.
- Pack additional ice in plastic bags between and above the samples.
- Place the signed chain-of-custody form in a ziplock-type bag and tape to the inside of cooler lid.
- Close cooler lid and secure with packing tape.
- Tape shipping documents to top of cooler.

3.6 LABORATORY ANALYSES

The soil samples will be analyzed using the following methods:

- Organochlorine pesticides using EPA Method 8081A
- Chlorinated herbicides using EPA Method 8151A
- CAM-17 metals using EPA Method 6020/7471A

All analyses will be performed by a California State Water Resources Control Board-certified laboratory.

4.0 DATA EVALUATION AND REPORTING

Data evaluation will consist of comparing the analytical results with human health-based screening levels for commercial/industrial workers. The screening levels that will be used for this purpose include DTSC Human Health Risk Assessment Note 3 soil screening levels (DTSC-SLs) for commercial/industrial workers (DTSC, 2022), or USEPA Regional Screening Levels for soil (RSLs) for commercial/industrial workers (EPA, 2024). Where available, the DTSC-SLs will be used for screening purposes; RSLs will be used only for compounds which do not have a DTSC-SL.

The results of the investigation will be provided in a technical memorandum to include the following:

- Narrative describing the field investigation.

- Conclusions regarding the potential presence of agriculture-related chemicals in soil.
- Recommendations for further work, if warranted.
- Tables summarizing the laboratory analytical results.
- A figure showing the sampling locations.
- Attachments, including a copy of this SAP and the laboratory report.

5.0 REFERENCES

CEC, 2024. *Determination of Incomplete Application and Request for Information for the Potentia-Viridi Battery Energy Storage System (Docket No. 24-OPT-04)*. September 6.

DTSC, 2008. *Interim Guidance for Sampling Agricultural Properties (Third Revision)*. August 7.

DTSC, 2022. *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*. May.

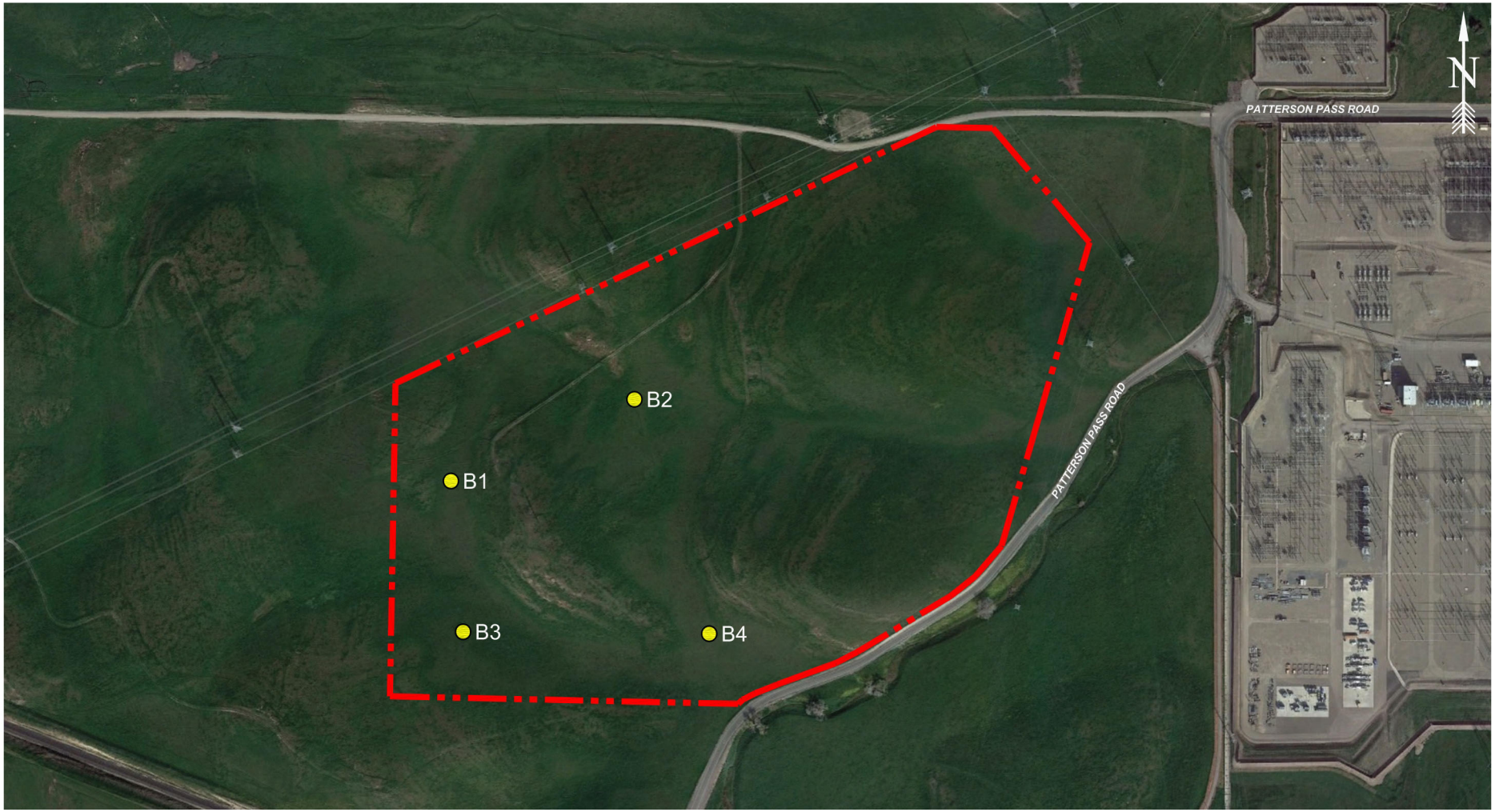
EPA, 2024. *Regional Screening Levels (RSLs) – Generic Tables*. https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. May.

Tetra Tech, 2024. *Phase I Environmental Site Assessment, Undeveloped Land, 17257 Patterson Pass Road – Part of APN 99B-7890-002-04, Alameda County, California 95377*. August 7.

ATTACHMENTS

Figure 1 – Proposed Sampling Locations

Table 1 – Soil Sampling and Analysis Plan



LEGEND

SUBJECT PROPERTY BOUNDARY

B1 PROPOSED SAMPLING LOCATION AND DESIGNATION

0 500 1,000

SCALE (FEET)

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. BASE MAP AND SUBJECT PROPERTY BOUNDARIES DERIVED FROM AMERICAN LAND TITLE ASSOCIATION / NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (ALTA / NSPS) LAND TITLE SURVEY BY TETRA TECH (2023).
3. PROPOSED SAMPLING LOCATIONS MAY BE MOVED AT THE TIME OF INVESTIGATION BASED ON FIELD CONDITIONS.

UNDEVELOPED LAND
17257 PATTERSON PASS ROAD
PART OF APN 99B-7890-002-04
ALAMEDA COUNTY, CALIFORNIA 95377

TETRA TECH

OCTOBER 21 2024

TETRA TECH PROJECT NO. 117-372239-25001

PROPOSED SAMPLING LOCATIONS

FIGURE 1

Table 1: Soil Sampling and Analysis Plan

Location ID	Sample ID	Latitude	Longitude	Depth Interval (feet bgs)	Organochlorine Pesticides (EPA Method 8081A)	Chlorinated Herbicides (EPA Method 8151A)	CAM-17 Metals (EPA Method 6020/7471A)	Rationale
B1	B1-0.5	37.711638°	-121.576726°	0.0-0.5	✓	✓	✓	NW quadrant of area of concern
B2	B2-0.5	37.712286°	-121.574683°	0.0-0.5	✓	✓	✓	NE quadrant of area of concern
B3	B3-0.5	37.710263°	-121.576456°	0.0-0.5	✓	✓	✓	SW quadrant of area of concern
B4	B4-0.5	37.710264°	-121.573703°	0.0-0.5	✓	✓	✓	SE quadrant of area of concern

bgs: below ground surface
Latitude and longitude are in decimal degrees

APPENDIX B LABORATORY REPORT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mark Feldman
Tetra Tech Inc
301 East Vanderbilt Way
Suite 450
San Bernardino, California 92408

Generated 11/18/2024 1:43:24 PM

JOB DESCRIPTION

Alameda

JOB NUMBER

570-205724-1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

Eurofins Calscience

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

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11/18/2024 1:43:24 PM

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

Table of Contents

Definitions/Glossary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Job Narrative
570-205724-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/5/2024 10:00 AM. 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 3.2°C.

Herbicides
Method 8151A: The continuing calibration verification (CCV) associated with 570-501582 recovered high and outside the control limits for 2,4,5-TP (Silvex) on one column. Results are confirmed on both columns and reported from the passing column. The associated samples are: Tt B1 MUL (570-205724-1), Tt B2 MUL (570-205724-2), Tt B3 MUL (570-205724-3) and Tt B4 MUL (570-205724-4).

Method 8151A: The continuing calibration verification (CCV) associated with batch 570-501582 recovered above the upper control limit for Dalapon. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: Tt B1 MUL (570-205724-1), Tt B2 MUL (570-205724-2), Tt B3 MUL (570-205724-3) and Tt B4 MUL (570-205724-4).

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

Pesticides
Method 8081A: The continuing calibration verification (CCV) associated with batch 570-500681 recovered above the upper control limit for Toxaphene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: Tt B2 MUL (570-205724-2), Tt B3 MUL (570-205724-3) and Tt B4 MUL (570-205724-4).

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

Metals
Method 7471A: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-500281 and analytical batch 570-500651 recovered outside control limits for the following analytes: Mercury.

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

Detection Summary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Client Sample ID: Tt B1 MUL — Lab Sample ID: 570-205724-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4,5-TP (Silvex)	14		10	7.6	ug/Kg	1		8151A	Total/NA
Arsenic	6.11		0.529	0.0834	mg/Kg	5		6020	Total/NA
Barium	365		0.529	0.293	mg/Kg	5		6020	Total/NA
Beryllium	0.958		0.529	0.422	mg/Kg	5		6020	Total/NA
Cadmium	0.0974	J	0.529	0.0762	mg/Kg	5		6020	Total/NA
Chromium	37.9		0.529	0.403	mg/Kg	5		6020	Total/NA
Cobalt	14.4		0.529	0.0542	mg/Kg	5		6020	Total/NA
Copper	23.0		0.529	0.0982	mg/Kg	5		6020	Total/NA
Lead	10.1		0.529	0.293	mg/Kg	5		6020	Total/NA
Molybdenum	1.45		0.529	0.260	mg/Kg	5		6020	Total/NA
Nickel	29.0		0.529	0.359	mg/Kg	5		6020	Total/NA
Selenium	2.16		0.529	0.403	mg/Kg	5		6020	Total/NA
Vanadium	92.7		0.529	0.199	mg/Kg	5		6020	Total/NA
Zinc	57.0		5.29	3.20	mg/Kg	5		6020	Total/NA
Mercury	0.0323	J *1	0.0801	0.0221	mg/Kg	1		7471A	Total/NA

Client Sample ID: Tt B2 MUL — Lab Sample ID: 570-205724-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.01		0.494	0.0779	mg/Kg	5		6020	Total/NA
Barium	279		0.494	0.273	mg/Kg	5		6020	Total/NA
Beryllium	0.880		0.494	0.394	mg/Kg	5		6020	Total/NA
Cadmium	0.0746	J	0.494	0.0712	mg/Kg	5		6020	Total/NA
Chromium	35.6		0.494	0.377	mg/Kg	5		6020	Total/NA
Cobalt	13.8		0.494	0.0506	mg/Kg	5		6020	Total/NA
Copper	25.2		0.494	0.0917	mg/Kg	5		6020	Total/NA
Lead	11.6		0.494	0.273	mg/Kg	5		6020	Total/NA
Molybdenum	0.633		0.494	0.243	mg/Kg	5		6020	Total/NA
Nickel	29.9		0.494	0.336	mg/Kg	5		6020	Total/NA
Selenium	2.73		0.494	0.376	mg/Kg	5		6020	Total/NA
Thallium	0.170	J	0.494	0.157	mg/Kg	5		6020	Total/NA
Vanadium	66.3		0.494	0.185	mg/Kg	5		6020	Total/NA
Zinc	51.3		4.94	2.98	mg/Kg	5		6020	Total/NA
Mercury	0.0369	J *1	0.0887	0.0245	mg/Kg	1		7471A	Total/NA

Client Sample ID: Tt B3 MUL — Lab Sample ID: 570-205724-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4,5-T	9.2	J p	10	3.7	ug/Kg	1		8151A	Total/NA
Dicamba	32		10	4.8	ug/Kg	1		8151A	Total/NA
Dichlorprop	50	J	100	50	ug/Kg	1		8151A	Total/NA
Arsenic	3.07		0.499	0.0787	mg/Kg	5		6020	Total/NA
Barium	243		0.499	0.276	mg/Kg	5		6020	Total/NA
Beryllium	0.482	J	0.499	0.398	mg/Kg	5		6020	Total/NA
Cadmium	0.101	J	0.499	0.0719	mg/Kg	5		6020	Total/NA
Chromium	25.9		0.499	0.380	mg/Kg	5		6020	Total/NA
Cobalt	10.4		0.499	0.0511	mg/Kg	5		6020	Total/NA
Copper	17.3		0.499	0.0925	mg/Kg	5		6020	Total/NA
Lead	13.5		0.499	0.276	mg/Kg	5		6020	Total/NA
Molybdenum	0.861		0.499	0.246	mg/Kg	5		6020	Total/NA
Nickel	18.8		0.499	0.339	mg/Kg	5		6020	Total/NA
Selenium	1.82		0.499	0.380	mg/Kg	5		6020	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Client Sample ID: Tt B3 MUL (Continued)

Lab Sample ID: 570-205724-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	58.1		0.499	0.187	mg/Kg	5		6020	Total/NA
Zinc	61.6		4.99	3.01	mg/Kg	5		6020	Total/NA
Mercury	0.0298	J *1	0.0817	0.0225	mg/Kg	1		7471A	Total/NA

Client Sample ID: Tt B4 MUL

Lab Sample ID: 570-205724-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4,5-T	13		9.8	3.6	ug/Kg	1		8151A	Total/NA
Dicamba	7.8	J p	9.8	4.6	ug/Kg	1		8151A	Total/NA
Arsenic	5.03		0.473	0.0746	mg/Kg	5		6020	Total/NA
Barium	211		0.473	0.261	mg/Kg	5		6020	Total/NA
Beryllium	0.880		0.473	0.377	mg/Kg	5		6020	Total/NA
Cadmium	0.0856	J	0.473	0.0681	mg/Kg	5		6020	Total/NA
Chromium	27.0		0.473	0.361	mg/Kg	5		6020	Total/NA
Cobalt	13.6		0.473	0.0484	mg/Kg	5		6020	Total/NA
Copper	25.4		0.473	0.0877	mg/Kg	5		6020	Total/NA
Lead	12.8		0.473	0.261	mg/Kg	5		6020	Total/NA
Molybdenum	0.674		0.473	0.233	mg/Kg	5		6020	Total/NA
Nickel	24.9		0.473	0.321	mg/Kg	5		6020	Total/NA
Selenium	2.76		0.473	0.360	mg/Kg	5		6020	Total/NA
Thallium	0.202	J	0.473	0.150	mg/Kg	5		6020	Total/NA
Vanadium	58.0		0.473	0.177	mg/Kg	5		6020	Total/NA
Zinc	50.3		4.73	2.86	mg/Kg	5		6020	Total/NA
Mercury	0.0359	J *1	0.0850	0.0235	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Method: SW846 8081A - Organochlorine Pesticides (GC)

Client Sample ID: Tt B1 MUL
Date Collected: 11/04/24 08:42
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.71	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
4,4'-DDE	ND		5.0	0.68	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
4,4'-DDT	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Aldrin	ND		5.0	1.6	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
alpha-BHC	ND		5.0	0.59	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
alpha-Chlordane	ND		5.0	0.56	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
beta-BHC	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Chlordane	ND		25	4.1	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
delta-BHC	ND		5.0	0.93	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Dieldrin	ND		5.0	0.55	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Endosulfan I	ND		5.0	1.1	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Endosulfan II	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Endosulfan sulfate	ND		5.0	0.63	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Endrin	ND		5.0	0.67	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Endrin aldehyde	ND		5.0	3.3	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Endrin ketone	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
gamma-Chlordane	ND		5.0	3.4	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
gamma-BHC (Lindane)	ND		5.0	0.51	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Heptachlor	ND		5.0	0.60	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Heptachlor epoxide	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Methoxychlor	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/07/24 18:09	1
Toxaphene	ND		25	15	ug/Kg		11/06/24 11:14	11/07/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*77*		*38 - 148*	*11/06/24 11:14*	*11/07/24 18:09*	*1*
DCB Decachlorobiphenyl (Surr)	*83*		*37 - 151*	*11/06/24 11:14*	*11/07/24 18:09*	*1*

Client Sample ID: Tt B2 MUL
Date Collected: 11/04/24 10:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.71	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
4,4'-DDE	ND		5.0	0.68	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
4,4'-DDT	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Aldrin	ND		5.0	1.6	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
alpha-BHC	ND		5.0	0.59	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
alpha-Chlordane	ND		5.0	0.56	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
beta-BHC	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Chlordane	ND		25	4.1	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
delta-BHC	ND		5.0	0.93	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Dieldrin	ND		5.0	0.55	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Endosulfan I	ND		5.0	1.1	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Endosulfan II	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Endosulfan sulfate	ND		5.0	0.63	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Endrin	ND		5.0	0.67	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Endrin aldehyde	ND		5.0	3.3	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Endrin ketone	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
gamma-Chlordane	ND		5.0	3.4	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
gamma-BHC (Lindane)	ND		5.0	0.51	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Heptachlor	ND		5.0	0.60	ug/Kg		11/06/24 11:14	11/08/24 14:27	1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: Tt B2 MUL
Date Collected: 11/04/24 10:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Methoxychlor	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/08/24 14:27	1
Toxaphene	ND		25	15	ug/Kg		11/06/24 11:14	11/08/24 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*88*		*38 - 148*	*11/06/24 11:14*	*11/08/24 14:27*	*1*
DCB Decachlorobiphenyl (Surr)	*90*		*37 - 151*	*11/06/24 11:14*	*11/08/24 14:27*	*1*

Client Sample ID: Tt B3 MUL
Date Collected: 11/04/24 09:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.72	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
4,4'-DDE	ND		5.0	0.69	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
4,4'-DDT	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Aldrin	ND		5.0	1.6	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
alpha-BHC	ND		5.0	0.59	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
alpha-Chlordane	ND		5.0	0.56	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
beta-BHC	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Chlordane	ND		25	4.1	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
delta-BHC	ND		5.0	0.93	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Dieldrin	ND		5.0	0.55	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Endosulfan I	ND		5.0	1.1	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Endosulfan II	ND		5.0	0.55	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Endosulfan sulfate	ND		5.0	0.63	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Endrin	ND		5.0	0.67	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Endrin aldehyde	ND		5.0	3.3	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Endrin ketone	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
gamma-Chlordane	ND		5.0	3.4	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
gamma-BHC (Lindane)	ND		5.0	0.51	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Heptachlor	ND		5.0	0.60	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Heptachlor epoxide	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Methoxychlor	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/08/24 14:42	1
Toxaphene	ND		25	15	ug/Kg		11/06/24 11:14	11/08/24 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*86*		*38 - 148*	*11/06/24 11:14*	*11/08/24 14:42*	*1*
DCB Decachlorobiphenyl (Surr)	*84*		*37 - 151*	*11/06/24 11:14*	*11/08/24 14:42*	*1*

Client Sample ID: Tt B4 MUL
Date Collected: 11/04/24 09:45
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.71	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
4,4'-DDE	ND		5.0	0.68	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
4,4'-DDT	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Aldrin	ND		5.0	1.6	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
alpha-BHC	ND		5.0	0.59	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
alpha-Chlordane	ND		5.0	0.56	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
beta-BHC	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/08/24 14:57	1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: Tt B4 MUL
Date Collected: 11/04/24 09:45
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		25	4.1	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
delta-BHC	ND		5.0	0.93	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Dieldrin	ND		5.0	0.55	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Endosulfan I	ND		5.0	1.1	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Endosulfan II	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Endosulfan sulfate	ND		5.0	0.63	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Endrin	ND		5.0	0.67	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Endrin aldehyde	ND		5.0	3.3	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Endrin ketone	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
gamma-Chlordane	ND		5.0	3.4	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
gamma-BHC (Lindane)	ND		5.0	0.51	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Heptachlor	ND		5.0	0.60	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Heptachlor epoxide	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Methoxychlor	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/08/24 14:57	1
Toxaphene	ND		25	15	ug/Kg		11/06/24 11:14	11/08/24 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*83*		*38 - 148*	*11/06/24 11:14*	*11/08/24 14:57*	*1*
DCB Decachlorobiphenyl (Surr)	*87*		*37 - 151*	*11/06/24 11:14*	*11/08/24 14:57*	*1*

Method: SW846 8151A - Herbicides (GC)

Client Sample ID: Tt B1 MUL
Date Collected: 11/04/24 08:42
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		10	3.7	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
2,4,5-TP (Silvex)	**14**		10	7.6	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
2,4-D	ND		100	49	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
2,4-DB	ND		100	100	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
Dalapon	ND		250	73	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
Dicamba	ND		10	4.8	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
Dichlorprop	ND		100	50	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
Dinoseb	ND		100	59	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
MCPA	ND		10000	4900	ug/Kg		11/05/24 18:44	11/11/24 18:51	1
MCPP	ND		10000	6700	ug/Kg		11/05/24 18:44	11/11/24 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*87*	*p*	*20 - 163*	*11/05/24 18:44*	*11/11/24 18:51*	*1*

Client Sample ID: Tt B2 MUL
Date Collected: 11/04/24 10:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		10	3.7	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
2,4,5-TP (Silvex)	ND		10	7.5	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
2,4-D	ND		100	49	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
2,4-DB	ND		100	100	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
Dalapon	ND		250	73	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
Dicamba	ND		10	4.7	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
Dichlorprop	ND		100	49	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
Dinoseb	ND		100	59	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
MCPA	ND		10000	4900	ug/Kg		11/05/24 18:44	11/11/24 19:14	1
MCPP	ND		10000	6600	ug/Kg		11/05/24 18:44	11/11/24 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*117*		*20 - 163*	*11/05/24 18:44*	*11/11/24 19:14*	*1*

Client Sample ID: Tt B3 MUL
Date Collected: 11/04/24 09:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	**9.2**	**J p**	10	3.7	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
2,4,5-TP (Silvex)	ND		10	7.6	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
2,4-D	ND		100	49	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
2,4-DB	ND		100	100	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
Dalapon	ND		250	73	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
Dicamba	**32**		10	4.8	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
Dichlorprop	**50**	**J**	100	50	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
Dinoseb	ND		100	59	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
MCPA	ND		10000	4900	ug/Kg		11/05/24 18:44	11/11/24 19:36	1
MCPP	ND		10000	6600	ug/Kg		11/05/24 18:44	11/11/24 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*58*		*20 - 163*	*11/05/24 18:44*	*11/11/24 19:36*	*1*

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Method: SW846 8151A - Herbicides (GC)

Client Sample ID: Tt B4 MUL
Date Collected: 11/04/24 09:45
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	**13**		9.8	3.6	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
2,4,5-TP (Silvex)	ND		9.8	7.4	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
2,4-D	ND		98	48	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
2,4-DB	ND		98	98	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
Dalapon	ND		250	71	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
Dicamba	**7.8**	**J p**	9.8	4.6	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
Dichlorprop	ND		98	48	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
Dinoseb	ND		98	58	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
MCPA	ND		9800	4800	ug/Kg		11/05/24 18:44	11/11/24 19:59	1
MCPP	ND		9800	6500	ug/Kg		11/05/24 18:44	11/11/24 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*105*		*20 - 163*	*11/05/24 18:44*	*11/11/24 19:59*	*1*

Method: SW846 6020 - Metals (ICP/MS)

Client Sample ID: Tt B1 MUL
Date Collected: 11/04/24 08:42
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.529	0.214	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Arsenic	**6.11**		0.529	0.0834	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Barium	**365**		0.529	0.293	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Beryllium	**0.958**		0.529	0.422	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Cadmium	**0.0974**	**J**	0.529	0.0762	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Chromium	**37.9**		0.529	0.403	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Cobalt	**14.4**		0.529	0.0542	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Copper	**23.0**		0.529	0.0982	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Lead	**10.1**		0.529	0.293	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Molybdenum	**1.45**		0.529	0.260	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Nickel	**29.0**		0.529	0.359	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Selenium	**2.16**		0.529	0.403	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Silver	ND		1.06	0.542	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Thallium	ND		0.529	0.168	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Vanadium	**92.7**		0.529	0.199	mg/Kg		11/13/24 11:22	11/13/24 19:36	5
Zinc	**57.0**		5.29	3.20	mg/Kg		11/13/24 11:22	11/13/24 19:36	5

Client Sample ID: Tt B2 MUL
Date Collected: 11/04/24 10:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.494	0.199	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Arsenic	**4.01**		0.494	0.0779	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Barium	**279**		0.494	0.273	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Beryllium	**0.880**		0.494	0.394	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Cadmium	**0.0746**	**J**	0.494	0.0712	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Chromium	**35.6**		0.494	0.377	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Cobalt	**13.8**		0.494	0.0506	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Copper	**25.2**		0.494	0.0917	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Lead	**11.6**		0.494	0.273	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Molybdenum	**0.633**		0.494	0.243	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Nickel	**29.9**		0.494	0.336	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Selenium	**2.73**		0.494	0.376	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Silver	ND		0.989	0.506	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Thallium	**0.170**	**J**	0.494	0.157	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Vanadium	**66.3**		0.494	0.185	mg/Kg		11/13/24 11:22	11/13/24 19:38	5
Zinc	**51.3**		4.94	2.98	mg/Kg		11/13/24 11:22	11/13/24 19:38	5

Client Sample ID: Tt B3 MUL
Date Collected: 11/04/24 09:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.499	0.201	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Arsenic	**3.07**		0.499	0.0787	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Barium	**243**		0.499	0.276	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Beryllium	**0.482**	**J**	0.499	0.398	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Cadmium	**0.101**	**J**	0.499	0.0719	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Chromium	**25.9**		0.499	0.380	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Cobalt	**10.4**		0.499	0.0511	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Copper	**17.3**		0.499	0.0925	mg/Kg		11/13/24 11:22	11/13/24 19:40	5

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

Client Sample ID: Tt B3 MUL
Date Collected: 11/04/24 09:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**13.5**		0.499	0.276	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Molybdenum	**0.861**		0.499	0.246	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Nickel	**18.8**		0.499	0.339	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Selenium	**1.82**		0.499	0.380	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Silver	ND		0.998	0.511	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Thallium	ND		0.499	0.159	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Vanadium	**58.1**		0.499	0.187	mg/Kg		11/13/24 11:22	11/13/24 19:40	5
Zinc	**61.6**		4.99	3.01	mg/Kg		11/13/24 11:22	11/13/24 19:40	5

Client Sample ID: Tt B4 MUL
Date Collected: 11/04/24 09:45
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.473	0.191	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Arsenic	**5.03**		0.473	0.0746	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Barium	**211**		0.473	0.261	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Beryllium	**0.880**		0.473	0.377	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Cadmium	**0.0856**	**J**	0.473	0.0681	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Chromium	**27.0**		0.473	0.361	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Cobalt	**13.6**		0.473	0.0484	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Copper	**25.4**		0.473	0.0877	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Lead	**12.8**		0.473	0.261	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Molybdenum	**0.674**		0.473	0.233	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Nickel	**24.9**		0.473	0.321	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Selenium	**2.76**		0.473	0.360	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Silver	ND		0.946	0.485	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Thallium	**0.202**	**J**	0.473	0.150	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Vanadium	**58.0**		0.473	0.177	mg/Kg		11/13/24 11:22	11/13/24 19:42	5
Zinc	**50.3**		4.73	2.86	mg/Kg		11/13/24 11:22	11/13/24 19:42	5

Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: Tt B1 MUL
Date Collected: 11/04/24 08:42
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0323	J *1	0.0801	0.0221	mg/Kg		11/07/24 02:57	11/07/24 12:15	1

Client Sample ID: Tt B2 MUL
Date Collected: 11/04/24 10:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0369	J *1	0.0887	0.0245	mg/Kg		11/07/24 02:57	11/07/24 12:17	1

Client Sample ID: Tt B3 MUL
Date Collected: 11/04/24 09:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0298	J *1	0.0817	0.0225	mg/Kg		11/07/24 02:57	11/07/24 12:19	1

Client Sample ID: Tt B4 MUL
Date Collected: 11/04/24 09:45
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0359	J *1	0.0850	0.0235	mg/Kg		11/07/24 02:57	11/07/24 12:21	1

Surrogate Summary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(38-148)	(37-151)
570-205724-1	Tt B1 MUL	77	83
570-205724-1 MS	Tt B1 MUL	88	90
570-205724-1 MSD	Tt B1 MUL	81	87
570-205724-2	Tt B2 MUL	88	90
570-205724-3	Tt B3 MUL	86	84
570-205724-4	Tt B4 MUL	83	87
LCS 570-499998/2-A	Lab Control Sample	86	86
LCSD 570-499998/3-A	Lab Control Sample Dup	91	91
MB 570-499998/1-A	Method Blank	91	92

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DCPAA2
Lab Sample ID	Client Sample ID	(20-163)
570-205724-1	Tt B1 MUL	87 p

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DCPAA1
Lab Sample ID	Client Sample ID	(20-163)
570-205724-2	Tt B2 MUL	117
570-205724-3	Tt B3 MUL	58
570-205724-4	Tt B4 MUL	105
LCS 570-499728/2-A	Lab Control Sample	98
LCSD 570-499728/3-A	Lab Control Sample Dup	101
MB 570-499728/1-A	Method Blank	28

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 570-499998/1-A
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499998

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	0.72	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
4,4'-DDE	ND		5.0	0.69	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
4,4'-DDT	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Aldrin	ND		5.0	1.6	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
alpha-BHC	ND		5.0	0.59	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
alpha-Chlordane	ND		5.0	0.56	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
beta-BHC	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Chlordane	ND		25	4.1	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
delta-BHC	ND		5.0	0.93	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Dieldrin	ND		5.0	0.55	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Endosulfan I	ND		5.0	1.1	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Endosulfan II	ND		5.0	0.55	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Endosulfan sulfate	ND		5.0	0.63	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Endrin	ND		5.0	0.67	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Endrin aldehyde	ND		5.0	3.3	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Endrin ketone	ND		5.0	0.90	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
gamma-Chlordane	ND		5.0	3.4	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
gamma-BHC (Lindane)	ND		5.0	0.51	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Heptachlor	ND		5.0	0.60	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Heptachlor epoxide	ND		5.0	0.54	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Methoxychlor	ND		5.0	1.2	ug/Kg		11/06/24 11:14	11/07/24 17:24	1
Toxaphene	ND		25	15	ug/Kg		11/06/24 11:14	11/07/24 17:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*91*		*38 - 148*	*11/06/24 11:14*	*11/07/24 17:24*	*1*
DCB Decachlorobiphenyl (Surr)	*92*		*37 - 151*	*11/06/24 11:14*	*11/07/24 17:24*	*1*

Lab Sample ID: LCS 570-499998/2-A
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499998

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	25.0	19.16		ug/Kg		77	54 - 154
4,4'-DDE	25.0	18.58		ug/Kg		74	51 - 149
4,4'-DDT	25.0	19.16		ug/Kg		77	39 - 152
Aldrin	25.0	18.24		ug/Kg		73	52 - 138
alpha-BHC	25.0	18.59		ug/Kg		74	51 - 140
alpha-Chlordane	25.0	18.73		ug/Kg		75	53 - 141
beta-BHC	25.0	18.05		ug/Kg		72	53 - 141
delta-BHC	25.0	16.39		ug/Kg		66	20 - 132
Dieldrin	25.0	19.56		ug/Kg		78	52 - 144
Endosulfan I	25.0	18.18		ug/Kg		73	49 - 139
Endosulfan II	25.0	18.67		ug/Kg		75	51 - 150
Endosulfan sulfate	25.0	17.97		ug/Kg		72	45 - 139
Endrin	25.0	19.89		ug/Kg		80	53 - 151
Endrin aldehyde	25.0	19.60		ug/Kg		78	31 - 146
Endrin ketone	25.0	18.19		ug/Kg		73	51 - 150
gamma-Chlordane	25.0	20.18		ug/Kg		81	46 - 156

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-499998/2-A
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499998

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
gamma-BHC (Lindane)	25.0	19.25		ug/Kg		77	53 - 141
Heptachlor	25.0	18.81		ug/Kg		75	52 - 144
Heptachlor epoxide	25.0	18.11		ug/Kg		72	54 - 141
Methoxychlor	25.0	17.87		ug/Kg		71	47 - 148

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*86*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*86*		*37 - 151*

Lab Sample ID: LCSD 570-499998/3-A
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499998

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	25.0	20.40		ug/Kg		82	54 - 154	6	30
4,4'-DDE	25.0	19.83		ug/Kg		79	51 - 149	7	28
4,4'-DDT	25.0	20.45		ug/Kg		82	39 - 152	7	31
Aldrin	25.0	19.44		ug/Kg		78	52 - 138	6	30
alpha-BHC	25.0	19.71		ug/Kg		79	51 - 140	6	29
alpha-Chlordane	25.0	19.92		ug/Kg		80	53 - 141	6	28
beta-BHC	25.0	19.13		ug/Kg		77	53 - 141	6	29
delta-BHC	25.0	17.42		ug/Kg		70	20 - 132	6	40
Dieldrin	25.0	20.82		ug/Kg		83	52 - 144	6	28
Endosulfan I	25.0	19.27		ug/Kg		77	49 - 139	6	28
Endosulfan II	25.0	19.88		ug/Kg		80	51 - 150	6	29
Endosulfan sulfate	25.0	19.21		ug/Kg		77	45 - 139	7	30
Endrin	25.0	21.29		ug/Kg		85	53 - 151	7	29
Endrin aldehyde	25.0	20.99		ug/Kg		84	31 - 146	7	40
Endrin ketone	25.0	19.41		ug/Kg		78	51 - 150	6	30
gamma-Chlordane	25.0	20.58		ug/Kg		82	46 - 156	2	39
gamma-BHC (Lindane)	25.0	20.41		ug/Kg		82	53 - 141	6	29
Heptachlor	25.0	19.94		ug/Kg		80	52 - 144	6	29
Heptachlor epoxide	25.0	19.25		ug/Kg		77	54 - 141	6	29
Methoxychlor	25.0	19.01		ug/Kg		76	47 - 148	6	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*91*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*91*		*37 - 151*

Lab Sample ID: 570-205724-1 MS
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Tt B1 MUL
Prep Type: Total/NA
Prep Batch: 499998

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		25.0	20.37		ug/Kg		82	27 - 144
4,4'-DDE	ND		25.0	20.13		ug/Kg		81	28 - 141
4,4'-DDT	ND		25.0	21.90		ug/Kg		88	10 - 154
Aldrin	ND		25.0	19.06		ug/Kg		76	26 - 125

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 570-205724-1 MS
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Tt B1 MUL
Prep Type: Total/NA
Prep Batch: 499998

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
alpha-BHC	ND		25.0	18.92		ug/Kg		76	24 - 125
alpha-Chlordane	ND		25.0	20.07		ug/Kg		80	17 - 144
beta-BHC	ND		25.0	18.45		ug/Kg		74	28 - 125
delta-BHC	ND		25.0	16.88		ug/Kg		68	10 - 125
Dieldrin	ND		25.0	21.05		ug/Kg		84	19 - 145
Endosulfan I	ND		25.0	18.72		ug/Kg		75	25 - 125
Endosulfan II	ND		25.0	20.22		ug/Kg		81	13 - 142
Endosulfan sulfate	ND		25.0	19.02		ug/Kg		76	14 - 126
Endrin	ND		25.0	21.91		ug/Kg		88	28 - 139
Endrin aldehyde	ND		25.0	19.67		ug/Kg		79	12 - 125
Endrin ketone	ND		25.0	20.33		ug/Kg		81	20 - 132
gamma-Chlordane	ND		25.0	19.66		ug/Kg		79	10 - 160
gamma-BHC (Lindane)	ND		25.0	20.78		ug/Kg		83	24 - 125
Heptachlor	ND		25.0	19.53		ug/Kg		78	19 - 127
Heptachlor epoxide	ND		25.0	18.89		ug/Kg		76	33 - 123
Methoxychlor	ND		25.0	19.58		ug/Kg		78	19 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*88*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*90*		*37 - 151*

Lab Sample ID: 570-205724-1 MSD
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Tt B1 MUL
Prep Type: Total/NA
Prep Batch: 499998

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		25.0	19.66		ug/Kg		79	27 - 144	4	40
4,4'-DDE	ND		25.0	19.38		ug/Kg		78	28 - 141	4	32
4,4'-DDT	ND		25.0	21.41		ug/Kg		86	10 - 154	2	40
Aldrin	ND		25.0	18.06		ug/Kg		72	26 - 125	5	40
alpha-BHC	ND		25.0	17.75		ug/Kg		71	24 - 125	6	40
alpha-Chlordane	ND		25.0	19.15		ug/Kg		77	17 - 144	5	40
beta-BHC	ND		25.0	17.44		ug/Kg		70	28 - 125	6	39
delta-BHC	ND		25.0	16.08		ug/Kg		64	10 - 125	5	40
Dieldrin	ND		25.0	20.13		ug/Kg		81	19 - 145	4	39
Endosulfan I	ND		25.0	18.00		ug/Kg		72	25 - 125	4	39
Endosulfan II	ND		25.0	19.61		ug/Kg		78	13 - 142	3	40
Endosulfan sulfate	ND		25.0	18.23		ug/Kg		73	14 - 126	4	38
Endrin	ND		25.0	21.12		ug/Kg		85	28 - 139	4	40
Endrin aldehyde	ND		25.0	19.57		ug/Kg		78	12 - 125	1	40
Endrin ketone	ND		25.0	19.27		ug/Kg		77	20 - 132	5	40
gamma-Chlordane	ND		25.0	18.57		ug/Kg		74	10 - 160	6	40
gamma-BHC (Lindane)	ND		25.0	19.67		ug/Kg		79	24 - 125	5	40
Heptachlor	ND		25.0	18.50		ug/Kg		74	19 - 127	5	40
Heptachlor epoxide	ND		25.0	18.07		ug/Kg		72	33 - 123	4	34
Methoxychlor	ND		25.0	18.77		ug/Kg		75	19 - 128	4	40

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 570-205724-1 MSD
Matrix: Solid
Analysis Batch: 500249

Client Sample ID: Tt B1 MUL
Prep Type: Total/NA
Prep Batch: 499998

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*81*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*87*		*37 - 151*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 570-499728/1-A
Matrix: Solid
Analysis Batch: 501582

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		10	3.7	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
2,4,5-TP (Silvex)	ND		10	7.5	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
2,4-D	ND		100	49	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
2,4-DB	ND		100	100	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
Dalapon	ND		250	72	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
Dicamba	ND		10	4.7	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
Dichlorprop	ND		100	49	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
Dinoseb	ND		100	59	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
MCPA	ND		10000	4900	ug/Kg		11/05/24 18:19	11/11/24 13:58	1
MCPP	ND		10000	6600	ug/Kg		11/05/24 18:19	11/11/24 13:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*28*		*20 - 163*	*11/05/24 18:19*	*11/11/24 13:58*	*1*

Lab Sample ID: LCS 570-499728/2-A
Matrix: Solid
Analysis Batch: 501582

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499728

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-T	20.0	16.89		ug/Kg		84	26 - 180
2,4,5-TP (Silvex)	20.0	18.50		ug/Kg		93	10 - 180
2,4-D	200	265.0		ug/Kg		133	13 - 180
2,4-DB	200	207.3		ug/Kg		104	10 - 180
Dalapon	500	595.4		ug/Kg		119	10 - 176
Dicamba	20.0	22.92		ug/Kg		115	21 - 164
Dichlorprop	200	199.7		ug/Kg		100	10 - 175
Dinoseb	100	109.5		ug/Kg		110	10 - 180
MCPA	20000	27610		ug/Kg		138	22 - 180
MCPP	20000	21400		ug/Kg		107	18 - 180

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*98*		*20 - 163*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 570-499728/3-A
Matrix: Solid
Analysis Batch: 501582

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499728

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-T	20.0	22.68		ug/Kg		113	26 - 180	21	40
2,4,5-TP (Silvex)	20.0	20.05		ug/Kg		100	10 - 180	8	40
2,4-D	200	293.8		ug/Kg		147	13 - 180	10	40
2,4-DB	200	223.0		ug/Kg		112	10 - 180	7	40
Dalapon	500	657.4		ug/Kg		131	10 - 176	10	40
Dicamba	20.0	22.91		ug/Kg		115	21 - 164	0	40
Dichlorprop	200	233.3		ug/Kg		117	10 - 175	16	40
Dinoseb	100	111.5		ug/Kg		112	10 - 180	2	40
MCPA	20000	27570		ug/Kg		138	22 - 180	0	40
MCPP	20000	22410		ug/Kg		112	18 - 180	5	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*101*		*20 - 163*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 570-502656/1-A ^5
Matrix: Solid
Analysis Batch: 502864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 502656

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.471	0.190	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Arsenic	ND		0.471	0.0742	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Barium	ND		0.471	0.260	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Beryllium	ND		0.471	0.375	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Cadmium	ND		0.471	0.0678	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Chromium	ND		0.471	0.359	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Cobalt	ND		0.471	0.0482	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Copper	ND		0.471	0.0873	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Lead	ND		0.471	0.260	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Molybdenum	ND		0.471	0.232	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Nickel	ND		0.471	0.320	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Selenium	ND		0.471	0.358	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Silver	ND		0.941	0.482	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Thallium	ND		0.471	0.150	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Vanadium	ND		0.471	0.177	mg/Kg		11/13/24 11:22	11/13/24 17:44	5
Zinc	ND		4.71	2.84	mg/Kg		11/13/24 11:22	11/13/24 17:44	5

Lab Sample ID: LCS 570-502656/2-A ^5
Matrix: Solid
Analysis Batch: 502864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 502656

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	195	188.3		mg/Kg		96	80 - 120
Arsenic	195	203.1		mg/Kg		104	80 - 120
Barium	195	208.7		mg/Kg		107	80 - 120
Beryllium	195	205.8		mg/Kg		105	80 - 120
Cadmium	195	201.5		mg/Kg		103	80 - 120
Chromium	195	208.5		mg/Kg		107	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-502656/2-A ^5
Matrix: Solid
Analysis Batch: 502864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 502656

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	195	218.2		mg/Kg		112	80 - 120
Copper	195	207.9		mg/Kg		106	80 - 120
Lead	195	214.2		mg/Kg		110	80 - 120
Molybdenum	195	211.9		mg/Kg		108	80 - 120
Nickel	195	206.0		mg/Kg		105	80 - 120
Selenium	195	184.5		mg/Kg		94	80 - 120
Silver	97.7	103.6		mg/Kg		106	80 - 120
Thallium	195	216.9		mg/Kg		111	80 - 120
Vanadium	195	206.8		mg/Kg		106	80 - 120
Zinc	195	195.1		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 570-502656/3-A ^5
Matrix: Solid
Analysis Batch: 502864

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 502656

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	201	199.3		mg/Kg		99	80 - 120	6	20
Arsenic	201	205.9		mg/Kg		103	80 - 120	1	20
Barium	201	213.9		mg/Kg		107	80 - 120	2	20
Beryllium	201	212.4		mg/Kg		106	80 - 120	3	20
Cadmium	201	207.9		mg/Kg		104	80 - 120	3	20
Chromium	201	212.9		mg/Kg		106	80 - 120	2	20
Cobalt	201	221.9		mg/Kg		111	80 - 120	2	20
Copper	201	213.9		mg/Kg		107	80 - 120	3	20
Lead	201	223.9		mg/Kg		112	80 - 120	4	20
Molybdenum	201	216.7		mg/Kg		108	80 - 120	2	20
Nickel	201	211.2		mg/Kg		105	80 - 120	2	20
Selenium	201	188.9		mg/Kg		94	80 - 120	2	20
Silver	100	106.5		mg/Kg		106	80 - 120	3	20
Thallium	201	226.4		mg/Kg		113	80 - 120	4	20
Vanadium	201	212.2		mg/Kg		106	80 - 120	3	20
Zinc	201	196.1		mg/Kg		98	80 - 120	1	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-500281/1-A
Matrix: Solid
Analysis Batch: 500651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500281

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0801	0.0221	mg/Kg		11/07/24 02:57	11/07/24 11:48	1

Lab Sample ID: LCS 570-500281/2-A
Matrix: Solid
Analysis Batch: 500651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500281

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.377	0.3149		mg/Kg		83	80 - 120

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 570-500281/3-A
Matrix: Solid
Analysis Batch: 500651

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 500281

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.408	0.3537	*1	mg/Kg		87	80 - 120	12	10

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

GC Semi VOA

Prep Batch: 499728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	8151A	
570-205724-2	Tt B2 MUL	Total/NA	Solid	8151A	
570-205724-3	Tt B3 MUL	Total/NA	Solid	8151A	
570-205724-4	Tt B4 MUL	Total/NA	Solid	8151A	
MB 570-499728/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 570-499728/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 570-499728/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Prep Batch: 499998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	3546	
570-205724-2	Tt B2 MUL	Total/NA	Solid	3546	
570-205724-3	Tt B3 MUL	Total/NA	Solid	3546	
570-205724-4	Tt B4 MUL	Total/NA	Solid	3546	
MB 570-499998/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-499998/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-499998/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-205724-1 MS	Tt B1 MUL	Total/NA	Solid	3546	
570-205724-1 MSD	Tt B1 MUL	Total/NA	Solid	3546	

Analysis Batch: 500249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	8081A	499998
MB 570-499998/1-A	Method Blank	Total/NA	Solid	8081A	499998
LCS 570-499998/2-A	Lab Control Sample	Total/NA	Solid	8081A	499998
LCSD 570-499998/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	499998
570-205724-1 MS	Tt B1 MUL	Total/NA	Solid	8081A	499998
570-205724-1 MSD	Tt B1 MUL	Total/NA	Solid	8081A	499998

Analysis Batch: 500681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-2	Tt B2 MUL	Total/NA	Solid	8081A	499998
570-205724-3	Tt B3 MUL	Total/NA	Solid	8081A	499998
570-205724-4	Tt B4 MUL	Total/NA	Solid	8081A	499998

Analysis Batch: 501582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	8151A	499728
570-205724-2	Tt B2 MUL	Total/NA	Solid	8151A	499728
570-205724-3	Tt B3 MUL	Total/NA	Solid	8151A	499728
570-205724-4	Tt B4 MUL	Total/NA	Solid	8151A	499728
MB 570-499728/1-A	Method Blank	Total/NA	Solid	8151A	499728
LCS 570-499728/2-A	Lab Control Sample	Total/NA	Solid	8151A	499728
LCSD 570-499728/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	499728

Metals

Prep Batch: 500281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	7471A	
570-205724-2	Tt B2 MUL	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 500281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-3	Tt B3 MUL	Total/NA	Solid	7471A	
570-205724-4	Tt B4 MUL	Total/NA	Solid	7471A	
MB 570-500281/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-500281/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-500281/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Analysis Batch: 500651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	7471A	500281
570-205724-2	Tt B2 MUL	Total/NA	Solid	7471A	500281
570-205724-3	Tt B3 MUL	Total/NA	Solid	7471A	500281
570-205724-4	Tt B4 MUL	Total/NA	Solid	7471A	500281
MB 570-500281/1-A	Method Blank	Total/NA	Solid	7471A	500281
LCS 570-500281/2-A	Lab Control Sample	Total/NA	Solid	7471A	500281
LCSD 570-500281/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	500281

Prep Batch: 502656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	3051A	
570-205724-2	Tt B2 MUL	Total/NA	Solid	3051A	
570-205724-3	Tt B3 MUL	Total/NA	Solid	3051A	
570-205724-4	Tt B4 MUL	Total/NA	Solid	3051A	
MB 570-502656/1-A ^5	Method Blank	Total/NA	Solid	3051A	
LCS 570-502656/2-A ^5	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 570-502656/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3051A	

Analysis Batch: 502864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-502656/1-A ^5	Method Blank	Total/NA	Solid	6020	502656
LCS 570-502656/2-A ^5	Lab Control Sample	Total/NA	Solid	6020	502656
LCSD 570-502656/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6020	502656

Analysis Batch: 502933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-205724-1	Tt B1 MUL	Total/NA	Solid	6020	502656
570-205724-2	Tt B2 MUL	Total/NA	Solid	6020	502656
570-205724-3	Tt B3 MUL	Total/NA	Solid	6020	502656
570-205724-4	Tt B4 MUL	Total/NA	Solid	6020	502656

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Client Sample ID: Tt B1 MUL

Lab Sample ID: 570-205724-1

Date Collected: 11/04/24 08:42

Matrix: Solid

Date Received: 11/05/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.08 g	10 mL	499998	11/06/24 11:14	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	500249	11/07/24 18:09	N5Y3	EET CAL 4
	Instrument ID: GC52A									
Total/NA	Prep	8151A			49.56 g	5 mL	499728	11/05/24 18:44	DVE6	EET CAL 4
Total/NA	Analysis	8151A		1	1 mL	1 mL	501582	11/11/24 18:51	ZE2W	EET CAL 4
	Instrument ID: GC41									
Total/NA	Prep	3051A			0.4722 g	50 mL	502656	11/13/24 11:22	EV3M	EET CAL 4
Total/NA	Analysis	6020		5			502933	11/13/24 19:36	P1R	EET CAL 4
	Instrument ID: ICPMS10									
Total/NA	Prep	7471A			0.52 g	50 mL	500281	11/07/24 02:57	VCN7	EET CAL 4
Total/NA	Analysis	7471A		1			500651	11/07/24 12:15	RL6Q	EET CAL 4
	Instrument ID: HG8									

Client Sample ID: Tt B2 MUL

Lab Sample ID: 570-205724-2

Date Collected: 11/04/24 10:20

Matrix: Solid

Date Received: 11/05/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.07 g	10 mL	499998	11/06/24 11:14	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	500681	11/08/24 14:27	N5Y3	EET CAL 4
	Instrument ID: GC52A									
Total/NA	Prep	8151A			49.96 g	5 mL	499728	11/05/24 18:44	DVE6	EET CAL 4
Total/NA	Analysis	8151A		1	1 mL	1 mL	501582	11/11/24 19:14	ZE2W	EET CAL 4
	Instrument ID: GC41									
Total/NA	Prep	3051A			0.5057 g	50 mL	502656	11/13/24 11:22	EV3M	EET CAL 4
Total/NA	Analysis	6020		5			502933	11/13/24 19:38	P1R	EET CAL 4
	Instrument ID: ICPMS10									
Total/NA	Prep	7471A			0.47 g	50 mL	500281	11/07/24 02:57	VCN7	EET CAL 4
Total/NA	Analysis	7471A		1			500651	11/07/24 12:17	RL6Q	EET CAL 4
	Instrument ID: HG8									

Client Sample ID: Tt B3 MUL

Lab Sample ID: 570-205724-3

Date Collected: 11/04/24 09:20

Matrix: Solid

Date Received: 11/05/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.02 g	10 mL	499998	11/06/24 11:14	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	500681	11/08/24 14:42	N5Y3	EET CAL 4
	Instrument ID: GC52A									
Total/NA	Prep	8151A			49.77 g	5 mL	499728	11/05/24 18:44	DVE6	EET CAL 4
Total/NA	Analysis	8151A		1	1 mL	1 mL	501582	11/11/24 19:36	ZE2W	EET CAL 4
	Instrument ID: GC41									
Total/NA	Prep	3051A			0.5009 g	50 mL	502656	11/13/24 11:22	EV3M	EET CAL 4
Total/NA	Analysis	6020		5			502933	11/13/24 19:40	P1R	EET CAL 4
	Instrument ID: ICPMS10									

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Client Sample ID: Tt B3 MUL

Date Collected: 11/04/24 09:20
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	500281	11/07/24 02:57	VCN7	EET CAL 4
Total/NA	Analysis	7471A		1			500651	11/07/24 12:19	RL6Q	EET CAL 4
	Instrument ID: HG8									

Client Sample ID: Tt B4 MUL

Date Collected: 11/04/24 09:45
Date Received: 11/05/24 10:00

Lab Sample ID: 570-205724-4

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			20.05 g	10 mL	499998	11/06/24 11:14	S4NC	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	500681	11/08/24 14:57	N5Y3	EET CAL 4
	Instrument ID: GC52A									
Total/NA	Prep	8151A			50.90 g	5 mL	499728	11/05/24 18:44	DVE6	EET CAL 4
Total/NA	Analysis	8151A		1	1 mL	1 mL	501582	11/11/24 19:59	ZE2W	EET CAL 4
	Instrument ID: GC41									
Total/NA	Prep	3051A			0.5284 g	50 mL	502656	11/13/24 11:22	EV3M	EET CAL 4
Total/NA	Analysis	6020		5			502933	11/13/24 19:42	P1R	EET CAL 4
	Instrument ID: ICPMS10									
Total/NA	Prep	7471A			0.49 g	50 mL	500281	11/07/24 02:57	VCN7	EET CAL 4
Total/NA	Analysis	7471A		1			500651	11/07/24 12:21	RL6Q	EET CAL 4
	Instrument ID: HG8									

Laboratory References:

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

Accreditation/Certification Summary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-25

Method Summary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Method	Method Description	Protocol	Laboratory
8081A	Organochlorine Pesticides (GC)	SW846	EET CAL 4
8151A	Herbicides (GC)	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3051A	Preparation, Metals, Microwave Assisted	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4
8151A	Extraction (Herbicides)	SW846	EET CAL 4

Protocol References:

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

Sample Summary

Client: Tetra Tech Inc
Project/Site: Alameda

Job ID: 570-205724-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-205724-1	Tt B1 MUL	Solid	11/04/24 08:42	11/05/24 10:00
570-205724-2	Tt B2 MUL	Solid	11/04/24 10:20	11/05/24 10:00
570-205724-3	Tt B3 MUL	Solid	11/04/24 09:20	11/05/24 10:00
570-205724-4	Tt B4 MUL	Solid	11/04/24 09:45	11/05/24 10:00

Loc: 570
205724

Chain of Custody Record 723704

eurofins | Enviro Ameri

Address: 2841 Dow Ave Suite 100
Tustin CA 92780
714 895 5494

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other:

Client Contact	Project Manager: Steven Gral	Site Contact: Tom Whitehead	Date: 11/4/24	COC No:
Company Name: Tetra Tech Inc	Tel/Email: steven.gral@tetratech.com	Lab Contact: Vic Patel	Carrier: Fed Ex	1 of 1 COCs
Address: 17885 Von Karman Ave	Analysis Turnaround Time			Sampler: Tom Whitehead
City/State/Zip: Suite 500, Irvine CA 92614	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 949-809-5076/9495422869	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Mulqueeney Property S.I.	☐ 1 week			Job / SDG No.:
Site: Alameda Co.	☐ 2 days			
PO# 117-372239-25001	☐ 1 day			

Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8081A OC Pest	8151A chlor Herb	Title 22 6020/7471A	Sample Specific Notes:
T+ B1 MUL	1	11/4/24	0842	G	Soil	8+7			X	X	X	
T+ B2 MUL	2		1020									
T+ B3 MUL	3		0920									
T+ B4 MUL	4		0945									

570-205724 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.2 Corr'd: 3.2 | Therm ID No.: 344

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Tom Whitehead	Tetra Tech	11/4/24 1400			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				GE	11/5/24 10:00

VOA

11/18/2024

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 570-205724-1

Login Number: 205724
List Number: 1
Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	