OCT 11 2023

DEPARTMENT OF PUBLIC WORKS
TROY K. TANIGAWA, P.E., COUNTY ENGINEER
BOYD GAYAGAS, DEPUTY COUNTY ENGINEER

DEREK S.K. KAWAKAMI, MAYOR
MICHAEL A. DAHILIG, MANAGING DIRECTOR

October 6, 2023

Mr. Glenn Haae, P.E.
Hawai'i Department of Health
Environmental Management Division
Solid & Hazardous Waste Branch
2827 Waimano Home Road #100
Pearl City, Hawai'i 96782

SUBJECT: SOLID WASTE MANAGEMENT PERMIT MODIFICATION APPLICATION
KEKAHA MUNICIPAL SOLID WASTE LANDFILL
PERMIT NO. LF-0042-16

Dear Mr. Haae,

The County of Kauai Department of Public Works, Solid Waste Division (County) is submitting this Solid Waste Management Permit (SWMP) Modification Application to the Hawaii Department of Health to amend the SWMP for the Kekaha Municipal Solid Waste Landfill (Kekaha Landfill), Number LF-0042-16, to allow the liquids generated at the closed Halehaka Landfill to be disposed of in the leachate evaporation pond at the Kekaha Landfill. The Kekaha Landfill is currently in compliance with all Hawai'i Administrative Rules (HAR) as outlined in SWMP LF-0042-16.

Should you have any questions, please contact Allison Fraley, Environmental Services Manager, at (808) 241-4837.

Sincerely,

TROY K. TANIGAWA, P.E.
County Engineer
County of Kauai Department of Public Works

Cc: Allison Fraley, County of Kauai
Keola Aki, County of Kauai
Suzan Pankenier, Tetra Tech

Solid Waste Management Permit Modification Application

Kekaha Municipal Solid Waste Landfill

Kekaha, Kauai, Hawaii

SEPTEMBER 15, 2023

PRESENTED TO

County of Kauai Solid Waste Division
4444 Rice Street, Suite 295
Lihue, Kauai, Hawaii 96766

State of Hawaii Department of Health, Environmental Management Division, Solid & Hazardous Waste Branch
2827 Waimano Home Road #100
Pearl City, Hawaii 96782

SUBMITTED BY

Tetra Tech
21700 Copley Drive, Suite 200
Diamond Bar, CA 91765

P +1.909.860.7777
F +1.909.396.1768
tetratech.com

CERTIFICATION

The material and data in this report were prepared under the supervision and direction of the undersigned.

Project: Solid Waste Management Permit Modification Application
Kekaha Municipal Solid Waste Landfill
Kekaha, Kauai, Hawaii

Suzan Pankenier
Client Manager

Kendra Kent
Senior Compliance Specialist

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

1.1 PUPOSE OF SUBMITTAL

Tetra Tech, on behalf of the County of Kauai (County) submits this solid waste management permit (SWMP) application to the State of Hawaii Department of Health, Environmental Management Division, Solid & Hazardous Waste Branch (DOH) to amend the SWMP for the Kekaha Municipal Solid Waste Landfill (KLF), number LF-0042-16, to allow the liquid waste generated at the closed Halehaka Landfill (Halehaka) to be disposed of in the leachate evaporation pond at the KLF.

1.1.1 Applicability

The County is in need of an offsite alternative for disposal of condensate and leachate generated at Halehaka in the quantities listed in Section 3.1 of this application. The County initially evaluated these liquid wastes for disposal at the County's Wastewater Treatment Plant (WWTP) as was previously done. However, after an initial analysis, it was deemed unacceptable for disposal at the WWTP. Before any non-sewage waste is disposed of, a sample must be taken, and a lab analysis must be completed to determine if the waste meets WWTP acceptance criteria. The condensate/leachate liquids were sampled on October 27, 2022, and the final lab report was provided on November 18, 2022, as described in Section 3.2 below. The report was provided to the WWTP chemist on December 13, 2022. There were two main issues as to why the condensate/leachate liquids could not be accepted. The first was that no gasoline type substances, at any limit, can be accepted; the condensate/leachate liquids had 1.2 micrograms per liter (ug/l) of Nitrobenzene. The second was that Isopropyl alcohol was present and the pH was 4.1. For it to be acceptable for WWTP disposal, the pH would need to be between a level of 5.5 and 5.9.

The County then evaluated Halehaka's condensate/leachate liquids for disposal in the leachate evaporation pond at the KLF. Based on the lab results the condensate/leachate liquids do not present a compatibility or capacity issue for the KLF as described in detail in Section 3 below.

The KLF's current SWMP and Operations Plan both allow for disposal of leachate and condensate generated onsite but prohibits disposal of bulk liquids generated by outside sources. Therefore, Tetra Tech has prepared this application for a minor permit modification to allow Halehaka's liquids to be disposed of at the leachate evaporation pond at the KLF.

As required by the DOH, the following completed attachments; DOH Permit Application Form, P-5: Zoning Clearance Form, and P-6: Property Owner Approval Form; are included in Appendix B of this application. This application also addresses the requirements of DOH Permit Application Attachments P-1, P-2, P-3, and P-4. All required forms have been signed by the KLF Responsible Official.

1.2 LANDFILL DESCRIPTIONS

1.2.1 Kekaha Municipal Solid Waste Landfill

The KLF is located at 6900-D Kaumualii Highway, Kekaha, Hawaii. It situated on approximately 98 acres of land and is comprised of two distinct refuse fill areas identified as Phase I and Phase II. Phase I ceased operations on October 8, 1993, and final cover was subsequently constructed. Phase I has no liner system beneath the refuse as there was no requirement for one at that time. Phase II began operations on October 9, 1993, with the closure of Phase I. Phase II was constructed to meet the Resource Conservation and Recovery Act (RCRA) Subtitle D criteria and is currently the only active municipal solid waste (MSW) landfill on Kauai. Several expansions of

Phase II have occurred. The current permitted waste footprint, covering approximately 45 acres, includes the Phase II and Cell 1 expansion disposal cells. Phase II consists of approximately 32.1 acres subdivided into 14 smaller waste disposal sub-cells, each about two acres. The Phase II landfill (including the Cell 1 expansion) is currently permitted to receive waste up to 120 ft msl. The average daily acceptance rate of the landfill is 200 tons per day. The peak daily disposal rate is limited to 600 tons.

The current leachate collection and removal system (LCRS) in place at the KLF maintains the leachate levels in compliance with federal and state regulations, which require that leachate not be allowed to accumulate on the landfill bottom liner to a depth of more than 1 foot (30 cm), not including leachate contained in the collection sumps. When the leachate level in a wet well or sump reaches a pre-determined height, the pump will automatically start and pump leachate out of the wet well or sump until the level has dropped to a set height. A force main transfers the leachate from the wet well to the leachate evaporation pond. The leachate evaporation pond occupies two acres on the northeast side of the landfill and has a capacity of approximately 3,699,000 gallons. A geoweb filled with granular materials covers the side slopes of the pond. The leachate level in the evaporation pond shall not exceed a 6-foot depth, leaving about 2 feet of freeboard.

The KLF maintains a log of the status of the LCRS at least once per week. The log includes the date and volume of leachate pumped into the leachate evaporation pond. Leachate volumes are measured by a flowmeter installed in the leachate pond inlet line. Inspections of the leachate evaporation pond are conducted monthly to assess any maintenance needed. The leachate level in the evaporation pond is checked at least weekly and after significant environmental events (i.e., large storms, hurricanes, earthquakes, etc.).

Condensate from KLF's gas collection and control system (GCCS) is currently directed through the LCRS and into the leachate evaporation pond. Leachate and groundwater monitoring is required to assess if contaminants are migrating from the landfill.

1.2.2 Halehaka Landfill

The closed Halehaka Landfill is a 22-acre site located approximately 1.5 miles southeast of Lihu'e, Kaua'i. The County of Kauai (County) operated the landfill and accepted municipal solid waste from 1973 to June 1991, when the landfill was officially closed to the public. The final closure of the landfill was completed in August 1995 with the installation of a high-density polyethylene (HDPE) geomembrane cover and the construction of an GCCS. The landfill ceased operations prior to October 9, 1991; therefore, it is not subject to Hawai'I Administrative Rules, Title 11, Chapter 58.1 post-closure requirements (DOH 1994). Post-closure monitoring and maintenance requirements were established as part of the Closure/Post-Closure Plan for the Halehaka Landfill (Beck 1993).

Final closure included the installation of a GCCS, consisting of an enclosed flare, landfill gas blower, vaulted gas extraction wells, collection piping, gas monitoring probes and condensate management sumps, pumps and associated piping. This system, along with a high-density polyethylene (HDPE) geomembrane cap and leachate collection system (for condensate/leachate) was constructed to protect the surrounding golf course and residential properties from potential health and safety risks.

The Closure/Post-Closure Plan forecasted that methane gas generated by the landfill could extend beyond 2017. The landfill gas collection has declined since its initial installation as expected, however, historical monitoring has indicated that landfill gas could still migrate offsite if the collection system were not operated. The County hired consultants to monitor landfill gas (LFG) to verify that explosive gas is not migrating to adjacent properties.

Groundwater monitoring is required to verify whether the contaminants are migrating from the landfill or not. Post-closure operation of the active GCCS and monitoring of LFG probes are necessary to evaluate potential migration of explosive LFG into the adjacent golf course and residential developments. Post-closure inspections are required to maintain the long-term integrity of the landfill cover system, drainage structures, and environmental control systems.

2.0 KLF SOLID WASTE MANAGEMENT PERMIT (LF-0042-16)

The KLF is currently in compliance with all Hawaii Administrative Rules (HAR) as outlined in SWMP LF-0042-16.

The KLF's leachate evaporation pond has sufficient capacity and is equipped to accept condensate from the Halehaka Landfill. The KLF's SWMP, Section G, Part 8 - Evaporation Pond, regulates all leachate management activities at the landfill. The County proposes to directly deposit condensate/leachate liquids from Halehaka into KLF's leachate evaporation pond, via a pump truck.

The KLF Operations Plan will be updated upon approval of the following SWMP changes from the DOH. The County proposes to amend the permit condition is as follows in **bold**:

SWMP LF-0042-16, Section G, Part 8 - Evaporation Pond

- ***a.*** *Leachate levels in the evaporation pond shall not exceed 6-foot depth, leaving about 2 feet of freeboard.*
- ***b.*** ***The permittees may accept condensate/leachate liquids from the County's closed Halehaka Landfill for disposal in the KLF's leachate evaporation pond.***
- ***c.*** ***The permittees shall maintain a record of the date, time, and amount (gallons) of condensate/leachate liquids from the Halehaka Landfill that is deposited in the KLF's leachate evaporation pond.***
- ***d.*** *The permittees shall implement contingency plans as needed to address potential exceedances, in accordance with the Operations Plan. These contingency plans include providing storage tanks to temporarily store excess leachate from the evaporation pond and haul excess leachate to an authorized wastewater treatment plant as necessary. The transfer of leachate and temporary storage of leachate shall be conducted with secondary containment measures.*
- ***e.*** *The permittees shall maintain records of leachate removal (by means other than evaporation), including date, volume, beginning and ending depths of leachate, and manner of disposal.* ***Specific records of condensate/leachate liquids accepted from the Halehaka Landfill will be recorded.***
- ***f.*** *Leachate levels in the evaporation pond shall be recorded at least weekly, except during periods of heavy rainfall, when the level shall be recorded daily, in accordance with the Leachate Management Plan.* ***Leachate levels will also be recorded each time condensate/leachate liquids are accepted from the Halehaka Landfill.***
- ***g.*** *The record log shall include the date, leachate level, and name of person conducting the inspection.*
- ***h.*** *The permittees shall notify the DOH of any exceedances of the leachate evaporation pond compliance levels in accordance with Standard Condition Item 10.*

The condensate from Halehaka is proposed to be deposited directly into the leachate evaporation pond at the KFL via a pump truck and will be subject to the requirements of Section G. Liquid levels in the evaporation pond will not exceed the limits described in Section G, Part 8(a), stating the pond shall not exceed a 6-foot depth, leaving at least 2 feet of freeboard. Records of all deliveries of condensate from Halehaka will be recorded per Section G, Part 8(c) and 8(e), and liquid levels of the evaporation pond will continue to be monitored weekly per Section G, Part 8(f).

3.0 HALEHAKA LIQUIDS GENERATION AND SAMPLING

3.1 HALEHAKA LIQUIDS GENERATION

The generation of condensate/leachate liquids at Halehaka is estimated to be a maximum of 16 gallons per day, equaling a maximum generation rate of 5,840 gallons per year, roughly 0.002% of KLF's leachate evaporation

pond (the pond's total volume is 3,699,000 gallons). The condensate storage tank at the Halehaka landfill is sized for 1,200 gallons. Leachate within the manhole is pumped out when levels exceed an elevation of 150 feet above mean sea level. Please refer to Appendix D for calculations determining the condensate generation.

3.2 SAMPLING RESULTS

Samples of the Halehaka liquids (leachate and condensate) were collected on October 27, 2022. One sample was collected from the leachate manhole and one sample was collected from the condensate tank onsite. The samples were analyzed by Eurofins Environmental Testing and the final report was provided on November 18, 2022.

The results were compared to KLF's First Quarter 2023 Groundwater and Leachate Monitoring Report and indicated that there are no compatibility concerns with disposing the liquids together. Generally, compatibility with respect to negative reactions between the two liquids occurs if the detected contaminants were in there pure or highly concentrated forms. None of the detected contaminants in either liquid are above the parts per million (ppm) range and most of the organics are in the parts per billion (ppb) range. Regarding pH, two of the three samples of Halehaka liquids had a pH of 4.1 (although the third sample was close to neutral). The KLF liquids have a rather high alkalinity, so they likely will buffer the Halehaka liquids.

The sampling results are summarized in the table below. The full report is included in Appendix E.

Sampling Results Summary

Condensate Tank/Sump

Analyte	Result	Unit	Qualifier	Reporting Limit	Method Detection Limit
Isopropyl alcohol	42.0	Ug/L	-	40.0	5.5
Nitrobenzene	1.2	Ug/L	J	10.0	0.77
Barium	10.0	Ug/L	-	10.0	0.82
Cadmium	0.81	Ug/L	J	5.0	0.13
Chromium	2.9	Ug/L	J	10.0	0.66
Lead	250.0	Ug/L	-	9.0	2.7
Mercury	0.11	Ug/L	J B	.20	0.061
Flashpoint	>160	Degrees F	-	1.0	1.0
PH adj. to 25 deg C	4.1	SU	HF	0.1	0.1
Temperature	21.1	Degrees C	HF	1.0	1.0

Leachate Manhole

Analyte	Result	Unit	Qualifier	Reporting Limit	Method Detection Limit

Isopropyl alcohol	19.0	Ug/L	J	40.0	5.5
Barium	43.0	Ug/L	-	10.0	0.82
Chromium	0.94	Ug/L	J	10.0	0.66
Mercury	0.15	Ug/L	J B	0.20	0.061
Flashpoint	>160	Degrees F	-	1.0	1.0
PH adj. to 25 deg C	7.1	SU	HF	0.1	0.1
Temperature	21.1	Degrees C	HF	1.0	1.0

F – Fahrenheit C – Celsius Ug/L – Micrograms per Liter SU – Standard Units

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B - Compound was found in the blank and sample.

HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

4.0 CONCLUSION

This SWMP application has been prepared for the County's need of an offsite disposal alternative for the condensate/leachate liquids generated at Halehaka. This application was prepared to amend the SWMP for the KLF, Number LF-0042-16, to allow the condensate generated at the closed Halehaka Landfill to be disposed of in the leachate evaporation pond at the KLF. The KLF's LCRS has sufficient capacity and is equipped to accept condensate from the Halehaka Landfill. The condensate generated at the Halehaka Landfill does not present a compatibility or capacity issue in the KLF's leachate evaporation pond.

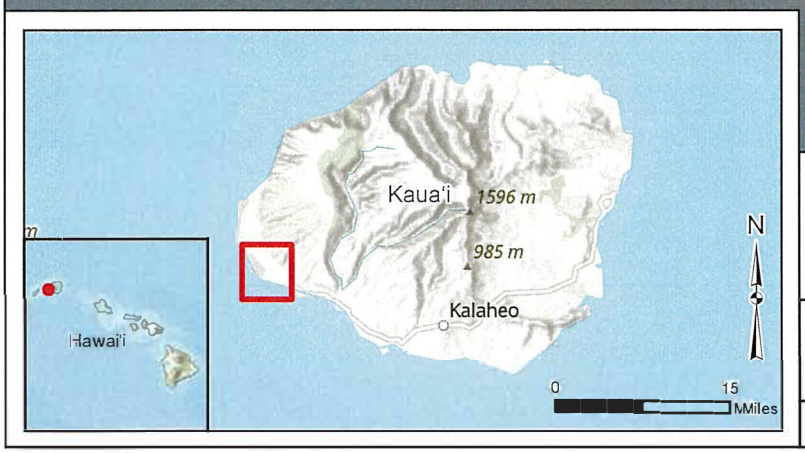
5.0 LIMITATIONS

The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Tetra Tech shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.

APPENDIX A

KEKAHA LANDFILL AS-BUILT DRAWINGS



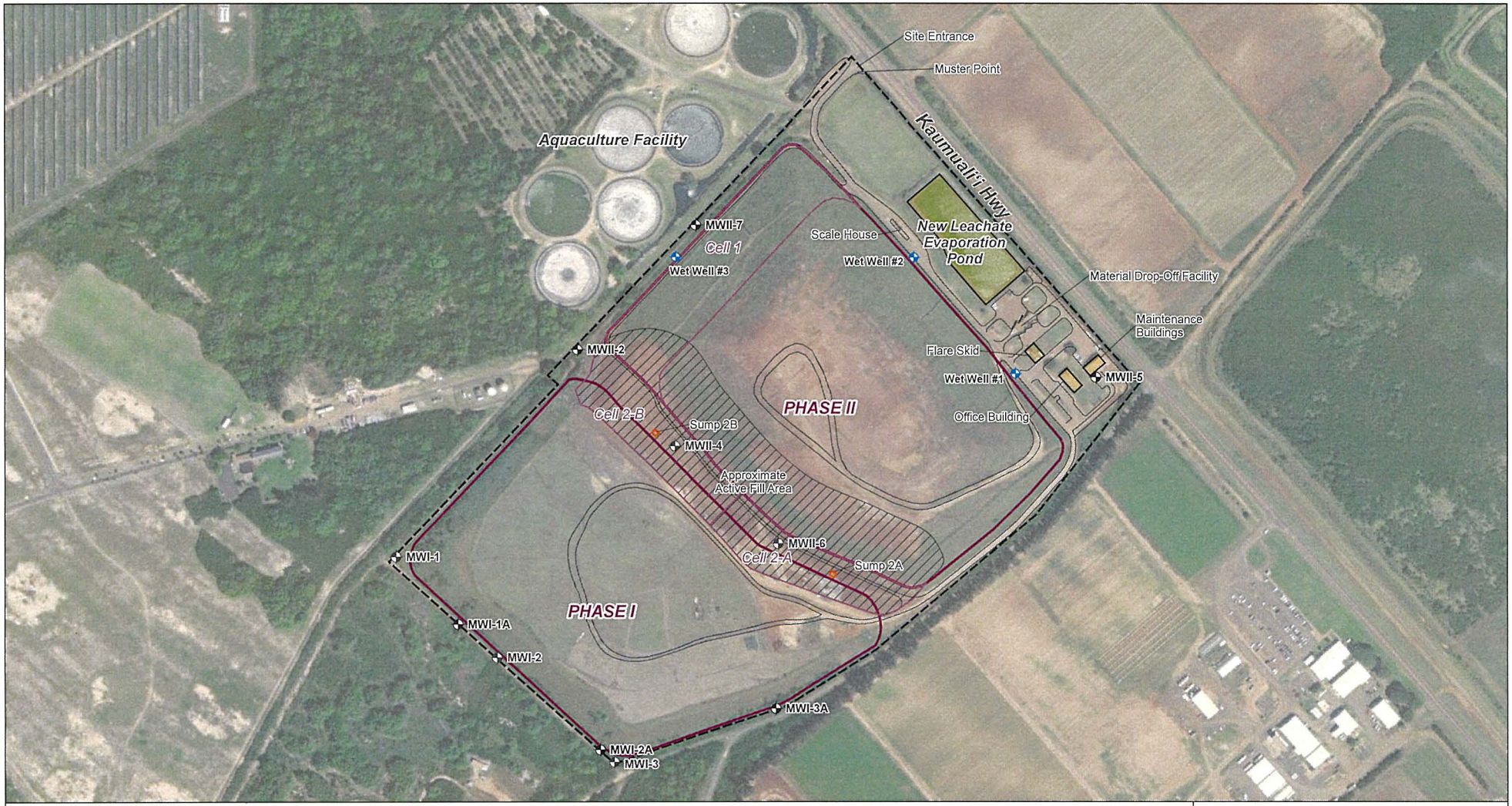
Site Location Map

Kekaha Municipal Solid Waste Landfill
Kaua'i, Hawai'i

Geosyntec consultants

WG3074	July 2022	Figure 1

P:\GIS\WM\KekahaLF\Project\2022Q1_GWMR\2022Q1.aprx\Fig01_SiteLocationMap 6/13/2022 4:43 PM (KWalton)



Legend

- Wet Well (Leachate Sump)
- Groundwater Monitoring Well
- Decommissioned Groundwater Monitoring Well
- Approximate Active Landfill Area
- Sump Location
- Phase Boundary
- Cell Boundary
- Roads
- Property Boundary

N

0 350 Feet

Site Layout

Kekaha Municipal Solid Waste Landfill
Kaua'i, Hawai'i

Geosyntec consultants

WG3074 | August 2022

Figure 2

P:\GIS\WM\KekahaLF\Project\2022Q1_GWMR\2022Q1.aprx\Fig02_SiteLayout 7/21/2022 10:23 AM (KWalton)

APPENDIX B

SOLID WASTE MANAGEMENT PERMIT APPLICATION FORMS

STATE OF HAWAII
DEPARTMENT OF HEALTH
ENVIRONMENTAL MANAGEMENT DIVISION
SOLID AND HAZARDOUS WASTE BRANCH

PERMIT APPLICATION FOR SOLID WASTE MANAGEMENT FACILITY (NOT FOR PERMIT BY RULE)

This permit application was developed in accordance with the requirements of Hawaii Administrative Rules (HAR), Title 11, Chapter 58.1. **In order for this application to be considered complete, completed Attachments P-1 through P-6 and filing fee must accompany this application form.** Please read the general instructions before completing.

I. Type of Application (check all that apply)

A. _____ Permit to establish a new facility
B. __X__ Permit to modify an existing facility
C. _____ Permit renewal with no modification
D. _____ Permit renewal with modification
E. _____ Change in ownership
F. _____ Other
Describe_____

II. Existing pollution control permits and/or variances issued to facility:

LF-0042-16

III. General Information

A. Name and address of the owner of the solid waste facility:

County of Kauai
4444 Rice Street, Suite 295, Lihue, Hawaii 96766
Telephone: (808) 241-4841

B. Name and address of the operator of the solid waste facility:

County of Kauai
6900-D Kaumualii Highway, Kekaha, Hawaii
Telephone: (808) 241-4841

C. Name and address of individual authorized to act for the owner and operator:

Telephone:_____

D. Name and address of landowner (If landowner is other than the owner/operator of the solid waste facility, include Attachment P-6):

Telephone:_____

E. Name and address of lessee, if appropriate:

_____

_____

_____Telephone:_____

F. Facility Name and Location:

Name: Kekaha Municipal Solid Waste Landfill

Address: 6900-D Kaumualii Highway, Kekaha, Hawaii

_____

Tax Map Key: 1-2-002:001 (por) and 1-2-002:009

(if appropriate)
Latitude: _____° _____' _____" N
Longitude: _____° _____' _____" W
UTM Coordinates: Zone_____ East_____ North_____

G. Type of Facility (check all that apply)

1. Landfill
   - MSW (daily tonnage 200) ✓
   - C&D (daily tonnage 30) ✓
2. Incinerator (daily tonnage_____) _____
3. Solid Waste Processing
   - Transfer Station (daily tonnage_____) _____
   - Recycling/materials recovery _____
   - Salvage _____
4. Reclamation Facility
   - Composting _____
   - Remediation _____
5. Special Waste
   - Special waste landfill _____
   - Medical waste ✓
   - Foreign waste _____
   - Other Non-Specified Technology ✓
   - Please briefly explain Asbestos
6. Waste Treatment/Processing/Storage for Disposal _____

IV. Normal Operating Schedule

A. Shifts Worked: HOURS OF DAY
   1. From: 0800 To: 1600
   2. From:_____ To:_____
   3. From:_____ To:_____

B. Days per week: 7-days per week up to 352 days per year

C. Weeks per year: 52

D. Operation is seasonal or irregular, describe:

_____

V. For Permit Renewals and Modifications: Is the existing facility in compliance with Hawaii Revised Statutes (HRS) 342G, 342H and 342I; and Hawaii Administrative Rules (HAR), Title 11, Chapter 58.1, "Solid Waste Management Control"?

Yes ✓ No ____

If the existing facility is not in compliance with HRS 342G, H and/or I; and/or HAR, Title 11, Chapter 58.1, "Solid Waste Management Control", provide a detailed implementation plan as an attachment to the application. The implementation plan should include but is not limited to areas of noncompliance, reason for noncompliance, proposed actions towards achieving compliance, and implementation schedule, as an attachment to the application.

VI. Certification by owner and operator:

We, Troy Tanigawa (name), County Engineer (title) (owner)

and _____ (name), _____ (title) (operator)

certify that we have knowledge of the facts hereby submitted and that the same are true and correct to the best of our knowledge and belief, and that all information not identified as confidential in nature shall be treated by the Department of Health as public record. We further state that we will assume responsibility for the construction, modification, operation, maintenance, closure and post-closure of the facility in accordance with Hawaii Revised Statutes, 342G, H and I; and Hawaii Administrative Rules, Title 11, Chapter 58.1, and any permit issued thereof. As co-permittees, we understand that we share joint and several liability for compliance with aforementioned statutes, regulations, and permits.

If the owner/operator is a partnership or group other than a corporation or a county, one individual who is a member of the group shall sign the application. If the applicant is a corporation or a county, an officer of the corporation, general manager of the facility, or an authorized representative of the county shall sign the application.

Date: 10.6.23 Owner:
Signature: _____
Title: County Engineer
Company Name: County of Kauai, Department of Public Works – Solid Waste Division
Address: 4444 Rice Street, Mo'ikeha Building, Suite 295, Lihu'e, Hawai'i 96766
Telephone: (808) 241-4841

Date: 10-6-23 Operator:
Signature: _____
Title: County Engineer
Company Name: _____
Address: 4444 Rice Street, Mo'ikeha Building, Suite 295, Lihu'e, Hawai'i 96766
Telephone: (808) 241-4841

DO NOT WRITE BELOW ----- FOR AGENCY USE ONLY

VII. Date application received:_____

VIII. Received by:_____

IX. Application number:_____

X. Evaluating Official:_____

XI. Filing fee attached: Yes_____ No_____

XII. Plans and specifications attached: Yes_____ No_____

Attachment P-1	Yes_____	No_____
Attachment P-2	Yes_____	No_____
Attachment P-3	Yes_____	No_____
Attachment P-4	Yes_____	No_____
Attachment P-5	Yes_____	No_____
Attachment P-6	Yes_____	No_____

XIII. Action on application: Approved:_____
Disapproved:_____
Conditional Approved:_____

XIV. Date of action on application:_____

XV. Permit number:_____

ATTACHMENT P-5
ZONING CLEARANCE FORM
SOLID WASTE PERMIT APPLICATION

TO THE APPLICANT:

Please be advised that a requirement for the issuance of a solid waste management permit in Hawaii is that the facility meets local ordinances and zoning requirements, including the recording of its disposal facility with the Bureau of Conveyances.

In order that the SHWB may determine whether the facility is in compliance with local land use policy, **we require that this attachment be completed and signed by the appropriate county land use/planning agency** (on Oahu, contact the Department of Planning and Permitting). No permit will be issued unless this form has been properly completed and returned. If a Use Permit or SMA Permit is required, submit a copy of said permit with this form.

Name of Applicant: County of Kauai, Department of Public Works

Name and phone number of primary contact for applicant:
Ka'āina S. Hull (808) 241-4059

Address of proposed facility:
6900-D Kaumualii Highway, Kekaha, HI 96752

Tax Map Key: (4) 1-2-02: Por. 1

Description of proposed facility [e.g., waste processing, waste storage (indoor or outdoor), recycling, composting, waste disposal, etc.): Sanitary landfill

COUNTY AGENCY APPROVAL:

The Current Zoning of the Proposed site for the Proposed Activity / Facility / Operation is:

X Allowed — Identify Approved Use Permit/SMA, other Restrictions/Limitations: State Land Use Commission Special Permit issued July 1993

_____ Not Allowed — Reason (ex: Use Permit/SMA required, application pending, etc.):

Name: Ka'āina S. Hull

Title: Director

Agency: Department of Planning, County of Kauai

Signature: _____ Date: _____

ATTACHMENT P-6
PROPERTY OWNER APPROVAL FORM
SOLID WASTE PERMIT APPLICATION

TO THE APPLICANT:

In order that the SHWB may determine whether the property owner and/or master lessee is knowingly allowing the proposed solid waste activity, we require that this attachment be completed and signed by the property owner and the master lessee, if appropriate. **No permit will be issued unless this form has been properly completed and returned.**

Name of Applicant: County of Kauai, Department of Public Works

Name and phone number of primary contact for applicant:

Troy Tanigawa (808) 241-4993

Address of proposed facility:
6900-D Kaumualii Highway, Kekaha, HI 96752

Tax Map Key: (4) 1-2-02: Por. 1

Description of proposed facility [e.g., waste processing, waste storage (indoor or outdoor), recycling, composting, waste disposal, etc.): Sanitary landfill

PROPERTY OWNER / MASTER LESSEE APPROVAL:

I/We certify that I/we have knowledge and approve of the applicant's proposed solid waste management facility for the subject location. I/We further certify that I/we fully understand the requirements under HAR Chapter 11-58.1, Subchapter 6, such that I/we am/are also responsible for the aesthetic, nonhazardous, sanitary storage, and removal of solid waste to approved solid waste management facilities.

If the property owner/master lessee is a partnership or group other than a corporation, a county, or state entity, one individual who is a member of the group shall sign this form. If the property owner/master lessee is a corporation, a county, or a state entity, an officer of the corporation, or an authorized representative of the county or state shall sign this form.

Property Owner:
Name of Authorized Representative: Troy Tanigawa
Signature: _____ Date: 10-2-23
Title: County Engineer Telephone: (808) 241- 4993
Company Name: County of Kauai Termination date of
Address: 4444 Rice Street, Lihue, HI 96766 lease/approval: _____

Master Lessee:
Name of Authorized Representative: _____
Signature: _____ Date: _____
Title: _____ Telephone: _____
Company Name: _____ Termination date of
Address: _____ lease/approval: _____

APPENDIX C

KEKAHA LANDFILL SOLID WASTE MANAGEMENT PERMIT (LF-0042-16)

DAVID Y. IGE
GOVERNOR OF HAWAII

BRUCE S. ANDERSON, Ph.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

September 13, 2019

S0902KK

CERTIFIED MAIL NO. 7019 0700 0002 2274 8674
RETURN RECEIPT REQUESTED

Mr. Lyle Tabata
Acting County Engineer
County of Kauai
4444 Rice Street, Suite 295
Lihue, Hawaii 96766

RECEIVED
SEP 20 2019
DEPARTMENT OF PUBLIC WORKS
ADMINISTRATION

CERTIFIED MAIL NO. 7019 0700 0002 2274 8681
RETURN RECEIPT REQUESTED

Ms. Tina Adler
Waste Management of Hawaii
6900-D Kaumualii Highway
Kekaha, Hawaii 96752

RECEIVED
SEP 26 2019
SOLID WASTE DIVISION
COUNTY OF KAUAI

Dear Mr. Tabata and Ms. Adler:

SUBJECT: Solid Waste Management Permit No. LF-0042-16
Kekaha Municipal Solid Waste Landfill
6900-D Kaumualii Highway, Kekaha, Hawaii
TMKs: (4) 1-2-002:001 and 009

The Department of Health (DOH), Solid Waste Section (SWS) received your solid waste permit renewal and modification application dated September 2016 and revised October 2017, and additional submissions through October 2018.

The Notice of Draft Renewal and Modification Permit for the Kekaha Municipal Solid Waste Landfill was published in *The Garden Island* newspaper on June 28, 2019. The public comment period ran from June 28, 2019 to July 29, 2019. Comments were received from Waste Management of Hawaii. The comments received and the responses from the DOH are enclosed. Revisions to the draft permit were made based on responses to comments. Other non-substantive changes were also made.

The enclosed Solid Waste Management Permit No. LF-0042-16 is issued under the provisions of Hawaii Revised Statutes (HRS), Chapter 342H, "Solid Waste Pollution" and Hawaii Administrative Rules, Title 11, Chapter 58.1, "Solid Waste Management Control." The permittee may appeal to the Director of Health any of the conditions to the subject permit. The appeal must be in writing and submitted to the Director of Health within twenty (20) days after the receipt of this notice.

In accordance with the issued permit, please address the following items:

1. Groundwater Monitoring Plan. Please submit a revised groundwater monitoring plan within six (6) months of permit issuance.
2. Provide a current construction schedule to allow for coordination of site visits during construction.

It should be noted that surveys performed throughout the years have utilized multiple vertical datums. Note that elevation references made in the permit are based on the documents from which the information was received. Because of the variances, the permittee shall identify the datum used when providing any elevation data and provide an updated elevation conversion table that will relate all elevation datums used at the facility. In the future, all elevations shall be based on one single datum, which is clearly identified. We understand that as of May 11, 2018, the permittees have selected use of the USGS brass monument G1000 plus 1.21 feet.

In addition, as the county works from conceptual design to final design of the final cover system, we recommend that the soils that come into contact with the geosynthetic clay liner (GCL) have low calcium and magnesium ions, and that there is sufficient effective overburden stress over the GCL to achieve design permeability.

It is also our understanding that the County of Kauai is planning to purchase soil for intermediate and final cover. We also understand that the county plans to test and compare the results with the DOH unrestricted use Environmental Action Levels to verify it's use as an intermediate cover soil. Please ensure that sampling and analysis complies with the DOH Hazard Evaluation and Emergency Response Office *Technical Guidance Manual* and the *Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material (*also known the *Clean Fill Guidance)*. These documents may be found at:
http://eha-web.doh.hawaii.gov/eha-cma/Leaders/HEER/technical-guidance-and-fact-sheets.

HRS 342H-14 states that unless the submitted documents and other information secured by the DOH from the permittees contain confidential information, such as secret processes or methods of manufacture, they shall be made available for inspection by the public. Please notify the DOH-SWS within twenty (20) days of the receipt of this letter if you would like to make a claim of confidentiality. Otherwise, your entire application will be available for public inspection

If you have any questions regarding this letter, please contact Mr. Kevin Kihara of the Solid and Hazardous Waste Branch at (808) 586-4226.

Sincerely,

MARIANNE ROSSIO, P.E., ACTING CHIEF
Environmental Management Division

Enclosures: Solid Waste Management Permit No. LF-0042-16
Response to comments

LF-0042-16 Permit Comments

Waste Management of Hawaii, Inc.

	Permit Page/Condition	Issue	Comment	Suggested language	Notes/Questions	SHWB Response
1	Permittees: Owner and Operator	County of Kauai is also a listed Operator	Add County of Kauai as another "Operator" to the header of the permit	Add County of Kauai as another "Operator" to the header of the permit	County of Kauai is listed as an Operator on the permit application	County of Kauai added as operator
2	Page 9, Section A, No 9 and Page 19, Section D, Condition 6	Reference to "Environmental Operations Manager"	Change language to Site Manager and Environmental Professional	"Training shall be conducted by a Site Manager or Environmental Professional."	Environmental Professional is more in line with WMH's organization structure. Universal Change throughout document for consistency	"Environmental Operations Manager" revised to "Environmental Professional"
3	Page12, Section B.1.c (Universal Edit Throughout Permit)	References to Specifc Plans	Updated plans as reference to the permit	Phase II, Cell 2 leachate sumps 2A and 2B shall be constructed in accordance with the October 2018 Draft Cell 2 Base Liner Construction Drawings Phase II Lateral Expansion Kekaha Sanitary Landfill *or the most current approved plan* .	Plans are updated regularly and submitted to the DOH for approval. Dates of specific plans will be irrelevant when a plan is updated. This should apply to all plans that are noted with specific dates.	Condition B.3. already allows the permittee to submit changes to design for DOH approval. Similarly Conditions C.2., D.1, E.5, G.1, G.9, and H.1 allow for updated revisions for DOH approval. For clarity, we included similar language to Conditions D.12, F.1, and I.1. Note that the referenced example in your comment, October 2018 Draft Cell 2 Base Liner Construction Drawings is the current approved plan.
4	Page 20, Section D, Condition 9.b	Special measures listed regarding loads of fresh or frozed uncooked shrimp and other crustaceans. The facility does not accept these items.	Remove Condition 9.b. from permit	N/A	WMH will be reviewing its opecating manual regarding acceptance of fresh or frozed uncooked shrimp and other crustaceans and will make changes if necessary. The facility does not currently accept these items.	It is the understanding of the SHWB that the operations plan will be revised; however, the operations plan will be not revised prior to permit issuance. Thus, the condition will remain. The permittee may choose to be more stringent than the permit conditions.
5	Page 21, Section D, Condition 12	Equipment required to be present on the Landfill - Unrealistic to sustain all equipment on the working face at all times, especially if repairs are needed.	More specific language that is tailored to actual operations.	The permittees shall provide adequate equipment and personnel to operate the MSW landfill facility, including provisions for back-up personnel and equipment. A minimum of one bulldozer, one compactor, one water truck, and one traffic controller shall be *available to* operate at the working face during operational hours, *unless equipment requires maintenance and/or repair or* otherwise approved by the DOH. The traffic controller and bulldozer operator may be the same person.	Language provide just a suggestion - WMH is open to other permit language as the DOH sees fit.	Condition D.12 has been revised to read as follows: "The permittees shall provide adequate equipment and personnel to operate the MSW landfill facility, including provisions for back-up personnel and equipment. A minimum of one bulldozer, one compactor, one water truck, and one traffic controller shall be available to operate at the working face during operational hours, except that the water truck could be making rounds at other locations at the facility. Equipment and personnel changes could be made if approved by the DOH in writing. The traffic controller and bulldozer operator may be the same person."
6	Page 23, Section D, Condition 23	Slight language modification to clarify Tarp requirements.	Describe Tarping systems to be Griffolyn TX1200 or equivale...	In accordance with the DOH's January 24, 1995 letter, the permittees may use tarps as ADC. The tarps shall be Griffolyn TX1200 (minimum 10 mil thickness with nylon scrim reinforcement) *or equivalent*. The tarps may only be used under the following conditions:	An equivalent make and model is sufficient if that specific item isnt available.	The condition has been modified to read: "The tarps shall be Griffolyn TX1200 (minimum 10 mil thickness with nylon scrim reinforcement) or equivalent."
7	Page 35, Section H, Condition 1.a	Monthly monitoring for Temperature in 5 foot intervals beginning at a depth of 10 feet does not have value in the data. Within current Operations Plan, this requirement is not listed.	Remove requirements describing monthly monitoring for tempertature at 5 feet intervals.	N/A	Requirement needs to be removed as the monitoring plan was revised and is no longer part of the monitoring requirements.	Requirement will be removed.

APPENDIX D

HALEHAKA LANDFILL CONDENSATE GENERATION CALCULATIONS

COMPUTATION SHEET

PROJECT TITLE: Halehaka Landfill PROJECT NO: 197-210068
DESCRIPTION: Landfill Gas Condensate Generation - Worst Case Conditions SHEET: 1
OF: 1
PREPARED BY: KJA DATE: 2/23/2023 CHECKED BY: AMN 2/23/2023

Assumptions:

1. LFG temperature at the wellhead is the warmest gas.
2. LFG traveling in a both above grade and below grade header and lateral piping in the winter will cause large temperature differentials.
3. The LFG temperature (just before the blower) depends on the distance traveled in buried header pipe and the thermal conductivity of the header pipe.
4. Work at the blower compresses the LFG, but no additional condensate is generated due to the heat of compression.
5. Worst case conditions modeled during the coldest part of the year, where the largest temperature change exists, causing the largest amount of condensate generation.

LFG Flow Data				
Pressure at Wellhead	-1	in. w.c.	14.66	psia
Typical Wellhead Temperature	100	°F	37.8	°C
Blower Inlet Pressure	-5	in. w.c.	14.52	psia
Typical Blower Inlet Temperature	70	°F	21.1	°C
Total Site LFG Flow	50	scfm		

Vapor Pressure (VP) is defined by Antoine's Equation as: $VP = 10^{A-\frac{B}{C+T}}$

Where: VP = Vapor Pressure (mmHG)
A = 8.07131
B = 1730.63
C = 233.426
} *(Constant for temperatures of 1-100° C)*
T = Temperature (°C)

After converting the system pressures and vapor pressures to "psia", the rate of condensate generation can be calculated as:

Condensate Generation (gpd) = $\left(\frac{VP}{P}_{\text{welhead}} - \frac{VP}{P}_{blower}\right) * Q_{LFG} * \frac{18\frac{lb}{lbm}}{379.5\frac{scf}{lbm} * 8.345\frac{lb}{gallon}} * 60\frac{min}{hr} * 24\frac{hr}{day}$

$VP_{wellhead}$ = 0.947 psia
VP_{blower} = 0.362 psia

Condensate Generation (gpd) = 16 gallons per day under the noted conditions.

Note: This calculation assumes saturated vapor conditions. If the gas stream is not fully saturated, less actual condensate will be generated by the process.

TETRA TECH

APPENDIX E

HALEHAKA LANDFILL CONDENSATE SAMPLING ANALYSIS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. LeAnn Mallette
Tetra Tech BAS
21700 Copley Drive
Suite 200
Diamond Bar California 91765

Generated 11/18/2022 2:50:18 PM

JOB DESCRIPTION

Halehaka Landfill, Hawaii

JOB NUMBER

280-168399-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

myEOL

Table of Contents

Qualifiers

GC/MS 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.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*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.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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 ID: 280-168399-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: Tetra Tech BAS

Project: Halehaka Landfill, Hawaii

Report Number: 280-168399-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt
The samples were received on 10/29/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.4° C and 2.0° C.

VOLATILE ORGANIC COMPOUNDS BY GC/MS
Samples Condensate Tank/Sump (280-168399-1), Leachate Manhole (280-168399-2) and Trip Blank (280-168399-3) were analyzed for Volatile Organic Compounds by GC/MS in accordance with SW-846 8260D. The samples were analyzed on 11/10/2022.

The continuing calibration verification (CCV) associated with batch 280-593004 recovered above the lower control limit for Dichlorodifluoromethane (-23 Limit 20) and Iodomethane(-27.1 Limit 20). This compound is a poor performing compound and recovered in both the LCS/LCSD. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Methylene Chloride was detected in method blank MB 280-593004/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for semivolatile organic compounds (GC-MS) in accordance with SW-846 8270D. The samples were prepared on 11/03/2022 and analyzed on 11/15/2022.

In preparation batch 280-592215, due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: Condensate Tank/Sump (280-168399-1). The reporting limits (RLs) have been adjusted proportionately.

LCSD was overconcentrated on the SEVAP bath for preparation batch 280-592215.

Indeno[1,2,3-cd]pyrene failed the recovery criteria high for LCS 280-592215/2-A. Indeno[1,2,3-cd]pyrene failed the recovery criteria high for LCSD 280-592215/3-A. Aniline and Benzidine exceeded the RPD limit. Refer to the QC report for details.

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

Job ID: 280-168399-1 (Continued)

Laboratory: Eurofins Denver (Continued)

POLYCHLORINATED BIPHENYLS (PCBS)

Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for polychlorinated biphenyls (PCBs) in accordance with SW 846 8082A. The samples were prepared on 10/31/2022 and analyzed on 11/04/2022.

TestAmerica Denver's practice for the reporting of dual column data in packages requiring forms and/or raw data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) in preparation batch 280-591800 associated with Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2).

The following samples in preparation batch 280-591800 and analytical batch 280-592551 required a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: Condensate Tank/Sump (280-168399-1), Leachate Manhole (280-168399-2), (LCS 280-591800/4-A), (LCSD 280-591800/5-A) and (MB 280-591800/1-A).

The continuing calibration verification (CCV) associated with preparation batch 280-591800 and analytical batch 280-592551 recovered below the lower control limit for DCB Decachlorobiphenyl (Surr) and Tetrachloro-m-xylene (Surr). The samples associated with this CCV were in control for surrogate; therefore, the data have been reported. The associated samples are impacted: Condensate Tank/Sump (280-168399-1), Leachate Manhole (280-168399-2), (CCV 280-592551/21), (CCV 280-592551/30) and (CCVIS 280-592551/3).

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

TOTAL METALS (ICP)

Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 11/04/2022 and analyzed on 11/08/2022.

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

TOTAL MERCURY

Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 11/14/2022 and analyzed on 11/15/2022.

Mercury was detected in method blank MB 280-593389/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

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

FLASHPOINT

Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for Flashpoint in accordance with SW-846 1010B. The samples were analyzed on 11/11/2022.

The following samples are not associated with a duplicate as none of the samples in the batch had a detectable flashpoint: Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2).

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

CYANIDE, TOTAL AND/OR AMENABLE

Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for Cyanide, Total and/or Amenable in accordance with 9012B. The samples were analyzed on 11/07/2022.

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

SULFIDE

Job ID: 280-168399-1 (Continued)

Laboratory: Eurofins Denver (Continued)

Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 10/31/2022.

Due to a supply chain shortage, the following samples were run without formaldehyde: Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2). Since the samples are non-detect, and the lack of formaldehyde would cause a high bias if a bias were to occur, the data has been qualified and reported. The presence/absence of formaldehyde for these samples had no effect on the reported results.

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

CORROSIVITY (PH)

Samples Condensate Tank/Sump (280-168399-1) and Leachate Manhole (280-168399-2) were analyzed for Corrosivity (pH) in accordance with EPA SW-846 9040C. The samples were analyzed on 11/01/2022 and 11/03/2022.

The following sample did not equilibrate to within 0.05 pH units after three measurements: Condensate Tank/Sump (280-168399-1). This was observed in a previous analysis thus the sample was not rerun.

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

Detection Summary

Client: Tetra Tech BAS
Project/Site: Halehaka Landfill, Hawaii

Job ID: 280-168399-1

Client Sample ID: Condensate Tank/Sump — Lab Sample ID: 280-168399-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropyl alcohol	42		40	5.5	ug/L	1		8260D	Total/NA
Nitrobenzene	1.2	J	10	0.77	ug/L	1		8270D	Total/NA
Barium	10		10	0.82	ug/L	1		6010C	Total/NA
Cadmium	0.81	J	5.0	0.13	ug/L	1		6010C	Total/NA
Chromium	2.9	J	10	0.66	ug/L	1		6010C	Total/NA
Lead	250		9.0	2.7	ug/L	1		6010C	Total/NA
Mercury	0.11	J B	0.20	0.061	ug/L	1		7470A	Total/NA
Flashpoint	>160		1.0	1.0	Degrees F	1		1010B	Total/NA
pH adj. to 25 deg C	4.1	HF	0.1	0.1	SU	1		9040C	Total/NA
Temperature	21.1	HF	1.0	1.0	Degrees C	1		9040C	Total/NA

Client Sample ID: Leachate Manhole — Lab Sample ID: 280-168399-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropyl alcohol	19	J	40	5.5	ug/L	1		8260D	Total/NA
Barium	43		10	0.82	ug/L	1		6010C	Total/NA
Chromium	0.94	J	10	0.66	ug/L	1		6010C	Total/NA
Mercury	0.15	J B	0.20	0.061	ug/L	1		7470A	Total/NA
Flashpoint	>160		1.0	1.0	Degrees F	1		1010B	Total/NA
pH adj. to 25 deg C	7.1	HF	0.1	0.1	SU	1		9040C	Total/NA
Temperature	21.1	HF	1.0	1.0	Degrees C	1		9040C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 280-168399-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrahydrofuran	4.1	J	7.0	2.0	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Tetra Tech BAS
Project/Site: Halehaka Landfill, Hawaii

Job ID: 280-168399-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET DEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET DEN
6010C	Metals (ICP)	SW846	EET DEN
7470A	Mercury (CVAA)	SW846	EET DEN
1010B	Ignitability, Pensky-Martens Closed-Cup Method	SW846	EET DEN
9012B	Cyanide, Total and/or Amenable	SW846	EET DEN
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	EET DEN
9040C	pH	SW846	EET DEN
3010A	Preparation, Total Metals	SW846	EET DEN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET DEN
5030C	Purge and Trap	SW846	EET DEN
7470A	Preparation, Mercury	SW846	EET DEN
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET DEN

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Tetra Tech BAS
Project/Site: Halehaka Landfill, Hawaii

Job ID: 280-168399-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-168399-1	Condensate Tank/Sump	Water	10/27/22 09:10	10/29/22 09:30
280-168399-2	Leachate Manhole	Water	10/27/22 08:45	10/29/22 09:30
280-168399-3	Trip Blank	Water	10/27/22 08:45	10/29/22 09:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.30	ug/L			11/10/22 15:48	1
Styrene	ND		1.0	0.36	ug/L			11/10/22 15:48	1
cis-1,3-Dichloropropene	ND		2.0	0.63	ug/L			11/10/22 15:48	1
trans-1,3-Dichloropropene	ND		2.0	0.65	ug/L			11/10/22 15:48	1
N-Propylbenzene	ND		1.0	0.53	ug/L			11/10/22 15:48	1
n-Butylbenzene	ND		1.0	0.48	ug/L			11/10/22 15:48	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			11/10/22 15:48	1
1,4-Dichlorobenzene	ND		1.0	0.39	ug/L			11/10/22 15:48	1
Ethylene Dibromide	ND		1.0	0.40	ug/L			11/10/22 15:48	1
Acrolein	ND		20	4.9	ug/L			11/10/22 15:48	1
3-Chloro-1-propene	ND		2.0	0.17	ug/L			11/10/22 15:48	1
1,2-Dichloroethane	ND		1.0	0.54	ug/L			11/10/22 15:48	1
Acrylonitrile	ND		20	4.5	ug/L			11/10/22 15:48	1
2-Pentanone	ND		6.0	3.7	ug/L			11/10/22 15:48	1
Vinyl acetate	ND		3.0	0.94	ug/L			11/10/22 15:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			11/10/22 15:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.37	ug/L			11/10/22 15:48	1
Bromobenzene	ND		1.0	0.40	ug/L			11/10/22 15:48	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/10/22 15:48	1
Toluene	ND		1.0	0.32	ug/L			11/10/22 15:48	1
Chlorobenzene	ND		1.0	0.42	ug/L			11/10/22 15:48	1
Tetrahydrofuran	ND		7.0	2.0	ug/L			11/10/22 15:48	1
Hexane	ND		2.0	0.16	ug/L			11/10/22 15:48	1
trans-1,4-Dichloro-2-butene	ND		3.0	1.4	ug/L			11/10/22 15:48	1
Cyclohexane	ND		1.0	0.44	ug/L			11/10/22 15:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.58	ug/L			11/10/22 15:48	1
1,4-Dioxane	ND		150	19	ug/L			11/10/22 15:48	1
Chlorodibromomethane	ND		2.0	0.62	ug/L			11/10/22 15:48	1
Tetrachloroethene	ND		1.0	0.40	ug/L			11/10/22 15:48	1
sec-Butylbenzene	ND		1.0	0.45	ug/L			11/10/22 15:48	1
1,3-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 15:48	1
n-Heptane	ND		5.0	0.70	ug/L			11/10/22 15:48	1
cis-1,2-Dichloroethene	ND		1.0	0.32	ug/L			11/10/22 15:48	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			11/10/22 15:48	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			11/10/22 15:48	1
m-Xylene & p-Xylene	ND		2.0	0.36	ug/L			11/10/22 15:48	1
1,3-Dichlorobenzene	ND		1.0	0.33	ug/L			11/10/22 15:48	1
1-Chlorohexane	ND		1.0	0.34	ug/L			11/10/22 15:48	1
Carbon tetrachloride	ND		1.0	0.57	ug/L			11/10/22 15:48	1
1,1-Dichloropropene	ND		1.0	0.42	ug/L			11/10/22 15:48	1
2-Hexanone	ND		5.0	1.7	ug/L			11/10/22 15:48	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 15:48	1
Ethyl ether	ND		2.0	0.35	ug/L			11/10/22 15:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.58	ug/L			11/10/22 15:48	1
Isopropyl alcohol	**42**		40	5.5	ug/L			11/10/22 15:48	1
Acetone	ND		15	6.6	ug/L			11/10/22 15:48	1
Chloroform	ND		1.0	0.36	ug/L			11/10/22 15:48	1
Benzene	ND		1.0	0.31	ug/L			11/10/22 15:48	1
1,1,1-Trichloroethane	ND		1.0	0.39	ug/L			11/10/22 15:48	1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		5.0	2.4	ug/L			11/10/22 15:48	1
Chloromethane	ND		2.0	0.75	ug/L			11/10/22 15:48	1
Iodomethane	ND		5.0	2.6	ug/L			11/10/22 15:48	1
Dibromomethane	ND		1.0	0.34	ug/L			11/10/22 15:48	1
Chlorobromomethane	ND		1.0	0.40	ug/L			11/10/22 15:48	1
Chloroethane	ND		4.0	1.4	ug/L			11/10/22 15:48	1
Vinyl chloride	ND		2.0	0.51	ug/L			11/10/22 15:48	1
Methylene Chloride	ND		2.0	0.94	ug/L			11/10/22 15:48	1
Carbon disulfide	ND		2.0	0.63	ug/L			11/10/22 15:48	1
Bromoform	ND		2.0	1.2	ug/L			11/10/22 15:48	1
Dichlorobromomethane	ND		1.0	0.39	ug/L			11/10/22 15:48	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			11/10/22 15:48	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			11/10/22 15:48	1
2-Methyl-2-propanol	ND		10	3.6	ug/L			11/10/22 15:48	1
Trichlorofluoromethane	ND		2.0	0.57	ug/L			11/10/22 15:48	1
Dichlorodifluoromethane	ND		3.0	0.96	ug/L			11/10/22 15:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.0	0.73	ug/L			11/10/22 15:48	1
Isobutyl alcohol	ND		110	37	ug/L			11/10/22 15:48	1
1,2-Dichloropropane	ND		1.0	0.52	ug/L			11/10/22 15:48	1
2-Butanone (MEK)	ND		15	5.9	ug/L			11/10/22 15:48	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/10/22 15:48	1
Trichloroethene	ND		1.0	0.30	ug/L			11/10/22 15:48	1
Methyl acetate	ND		5.0	1.6	ug/L			11/10/22 15:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/10/22 15:48	1
1,2,3-Trichlorobenzene	ND		2.0	0.70	ug/L			11/10/22 15:48	1
Hexachlorobutadiene	ND		2.0	1.2	ug/L			11/10/22 15:48	1
Naphthalene	ND		2.0	0.63	ug/L			11/10/22 15:48	1
o-Xylene	ND		1.0	0.33	ug/L			11/10/22 15:48	1
2-Chlorotoluene	ND		1.0	0.34	ug/L			11/10/22 15:48	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			11/10/22 15:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			11/10/22 15:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0	1.8	ug/L			11/10/22 15:48	1
1,2,3-Trichloropropane	ND		2.5	0.86	ug/L			11/10/22 15:48	1
Ethyl methacrylate	ND		3.0	0.86	ug/L			11/10/22 15:48	1
tert-Butylbenzene	ND		1.0	0.42	ug/L			11/10/22 15:48	1
Isopropylbenzene	ND		1.0	0.36	ug/L			11/10/22 15:48	1
4-Isopropyltoluene	ND		1.0	0.43	ug/L			11/10/22 15:48	1

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.30	ug/L			11/10/22 16:09	1
Styrene	ND		1.0	0.36	ug/L			11/10/22 16:09	1
cis-1,3-Dichloropropene	ND		2.0	0.63	ug/L			11/10/22 16:09	1
trans-1,3-Dichloropropene	ND		2.0	0.65	ug/L			11/10/22 16:09	1
N-Propylbenzene	ND		1.0	0.53	ug/L			11/10/22 16:09	1
n-Butylbenzene	ND		1.0	0.48	ug/L			11/10/22 16:09	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			11/10/22 16:09	1
1,4-Dichlorobenzene	ND		1.0	0.39	ug/L			11/10/22 16:09	1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.40	ug/L			11/10/22 16:09	1
Acrolein	ND		20	4.9	ug/L			11/10/22 16:09	1
3-Chloro-1-propene	ND		2.0	0.17	ug/L			11/10/22 16:09	1
1,2-Dichloroethane	ND		1.0	0.54	ug/L			11/10/22 16:09	1
Acrylonitrile	ND		20	4.5	ug/L			11/10/22 16:09	1
2-Pentanone	ND		6.0	3.7	ug/L			11/10/22 16:09	1
Vinyl acetate	ND		3.0	0.94	ug/L			11/10/22 16:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			11/10/22 16:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.37	ug/L			11/10/22 16:09	1
Bromobenzene	ND		1.0	0.40	ug/L			11/10/22 16:09	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/10/22 16:09	1
Toluene	ND		1.0	0.32	ug/L			11/10/22 16:09	1
Chlorobenzene	ND		1.0	0.42	ug/L			11/10/22 16:09	1
Tetrahydrofuran	ND		7.0	2.0	ug/L			11/10/22 16:09	1
Hexane	ND		2.0	0.16	ug/L			11/10/22 16:09	1
trans-1,4-Dichloro-2-butene	ND		3.0	1.4	ug/L			11/10/22 16:09	1
Cyclohexane	ND		1.0	0.44	ug/L			11/10/22 16:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.58	ug/L			11/10/22 16:09	1
1,4-Dioxane	ND		150	19	ug/L			11/10/22 16:09	1
Chlorodibromomethane	ND		2.0	0.62	ug/L			11/10/22 16:09	1
Tetrachloroethene	ND		1.0	0.40	ug/L			11/10/22 16:09	1
sec-Butylbenzene	ND		1.0	0.45	ug/L			11/10/22 16:09	1
1,3-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 16:09	1
n-Heptane	ND		5.0	0.70	ug/L			11/10/22 16:09	1
cis-1,2-Dichloroethene	ND		1.0	0.32	ug/L			11/10/22 16:09	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			11/10/22 16:09	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			11/10/22 16:09	1
m-Xylene & p-Xylene	ND		2.0	0.36	ug/L			11/10/22 16:09	1
1,3-Dichlorobenzene	ND		1.0	0.33	ug/L			11/10/22 16:09	1
1-Chlorohexane	ND		1.0	0.34	ug/L			11/10/22 16:09	1
Carbon tetrachloride	ND		1.0	0.57	ug/L			11/10/22 16:09	1
1,1-Dichloropropene	ND		1.0	0.42	ug/L			11/10/22 16:09	1
2-Hexanone	ND		5.0	1.7	ug/L			11/10/22 16:09	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 16:09	1
Ethyl ether	ND		2.0	0.35	ug/L			11/10/22 16:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.58	ug/L			11/10/22 16:09	1
Isopropyl alcohol	**19**	**J**	40	5.5	ug/L			11/10/22 16:09	1
Acetone	ND		15	6.6	ug/L			11/10/22 16:09	1
Chloroform	ND		1.0	0.36	ug/L			11/10/22 16:09	1
Benzene	ND		1.0	0.31	ug/L			11/10/22 16:09	1
1,1,1-Trichloroethane	ND		1.0	0.39	ug/L			11/10/22 16:09	1
Bromomethane	ND		5.0	2.4	ug/L			11/10/22 16:09	1
Chloromethane	ND		2.0	0.75	ug/L			11/10/22 16:09	1
Iodomethane	ND		5.0	2.6	ug/L			11/10/22 16:09	1
Dibromomethane	ND		1.0	0.34	ug/L			11/10/22 16:09	1
Chlorobromomethane	ND		1.0	0.40	ug/L			11/10/22 16:09	1
Chloroethane	ND		4.0	1.4	ug/L			11/10/22 16:09	1
Vinyl chloride	ND		2.0	0.51	ug/L			11/10/22 16:09	1
Methylene Chloride	ND		2.0	0.94	ug/L			11/10/22 16:09	1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		2.0	0.63	ug/L			11/10/22 16:09	1
Bromoform	ND		2.0	1.2	ug/L			11/10/22 16:09	1
Dichlorobromomethane	ND		1.0	0.39	ug/L			11/10/22 16:09	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			11/10/22 16:09	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			11/10/22 16:09	1
2-Methyl-2-propanol	ND		10	3.6	ug/L			11/10/22 16:09	1
Trichlorofluoromethane	ND		2.0	0.57	ug/L			11/10/22 16:09	1
Dichlorodifluoromethane	ND		3.0	0.96	ug/L			11/10/22 16:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.0	0.73	ug/L			11/10/22 16:09	1
Isobutyl alcohol	ND		110	37	ug/L			11/10/22 16:09	1
1,2-Dichloropropane	ND		1.0	0.52	ug/L			11/10/22 16:09	1
2-Butanone (MEK)	ND		15	5.9	ug/L			11/10/22 16:09	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/10/22 16:09	1
Trichloroethene	ND		1.0	0.30	ug/L			11/10/22 16:09	1
Methyl acetate	ND		5.0	1.6	ug/L			11/10/22 16:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/10/22 16:09	1
1,2,3-Trichlorobenzene	ND		2.0	0.70	ug/L			11/10/22 16:09	1
Hexachlorobutadiene	ND		2.0	1.2	ug/L			11/10/22 16:09	1
Naphthalene	ND		2.0	0.63	ug/L			11/10/22 16:09	1
o-Xylene	ND		1.0	0.33	ug/L			11/10/22 16:09	1
2-Chlorotoluene	ND		1.0	0.34	ug/L			11/10/22 16:09	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			11/10/22 16:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			11/10/22 16:09	1
1,2-Dibromo-3-Chloropropane	ND		5.0	1.8	ug/L			11/10/22 16:09	1
1,2,3-Trichloropropane	ND		2.5	0.86	ug/L			11/10/22 16:09	1
Ethyl methacrylate	ND		3.0	0.86	ug/L			11/10/22 16:09	1
tert-Butylbenzene	ND		1.0	0.42	ug/L			11/10/22 16:09	1
Isopropylbenzene	ND		1.0	0.36	ug/L			11/10/22 16:09	1
4-Isopropyltoluene	ND		1.0	0.43	ug/L			11/10/22 16:09	1

Client Sample ID: Trip Blank
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.30	ug/L			11/10/22 13:03	1
Styrene	ND		1.0	0.36	ug/L			11/10/22 13:03	1
cis-1,3-Dichloropropene	ND		2.0	0.63	ug/L			11/10/22 13:03	1
trans-1,3-Dichloropropene	ND		2.0	0.65	ug/L			11/10/22 13:03	1
N-Propylbenzene	ND		1.0	0.53	ug/L			11/10/22 13:03	1
n-Butylbenzene	ND		1.0	0.48	ug/L			11/10/22 13:03	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			11/10/22 13:03	1
1,4-Dichlorobenzene	ND		1.0	0.39	ug/L			11/10/22 13:03	1
Ethylene Dibromide	ND		1.0	0.40	ug/L			11/10/22 13:03	1
Acrolein	ND		20	4.9	ug/L			11/10/22 13:03	1
3-Chloro-1-propene	ND		2.0	0.17	ug/L			11/10/22 13:03	1
1,2-Dichloroethane	ND		1.0	0.54	ug/L			11/10/22 13:03	1
Acrylonitrile	ND		20	4.5	ug/L			11/10/22 13:03	1
2-Pentanone	ND		6.0	3.7	ug/L			11/10/22 13:03	1
Vinyl acetate	ND		3.0	0.94	ug/L			11/10/22 13:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			11/10/22 13:03	1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: Trip Blank
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0	0.37	ug/L			11/10/22 13:03	1
Bromobenzene	ND		1.0	0.40	ug/L			11/10/22 13:03	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/10/22 13:03	1
Toluene	ND		1.0	0.32	ug/L			11/10/22 13:03	1
Chlorobenzene	ND		1.0	0.42	ug/L			11/10/22 13:03	1
Tetrahydrofuran	**4.1**	**J**	7.0	2.0	ug/L			11/10/22 13:03	1
Hexane	ND		2.0	0.16	ug/L			11/10/22 13:03	1
trans-1,4-Dichloro-2-butene	ND		3.0	1.4	ug/L			11/10/22 13:03	1
Cyclohexane	ND		1.0	0.44	ug/L			11/10/22 13:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.58	ug/L			11/10/22 13:03	1
1,4-Dioxane	ND		150	19	ug/L			11/10/22 13:03	1
Chlorodibromomethane	ND		2.0	0.62	ug/L			11/10/22 13:03	1
Tetrachloroethene	ND		1.0	0.40	ug/L			11/10/22 13:03	1
sec-Butylbenzene	ND		1.0	0.45	ug/L			11/10/22 13:03	1
1,3-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 13:03	1
n-Heptane	ND		5.0	0.70	ug/L			11/10/22 13:03	1
cis-1,2-Dichloroethene	ND		1.0	0.32	ug/L			11/10/22 13:03	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			11/10/22 13:03	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			11/10/22 13:03	1
m-Xylene & p-Xylene	ND		2.0	0.36	ug/L			11/10/22 13:03	1
1,3-Dichlorobenzene	ND		1.0	0.33	ug/L			11/10/22 13:03	1
1-Chlorohexane	ND		1.0	0.34	ug/L			11/10/22 13:03	1
Carbon tetrachloride	ND		1.0	0.57	ug/L			11/10/22 13:03	1
1,1-Dichloropropene	ND		1.0	0.42	ug/L			11/10/22 13:03	1
2-Hexanone	ND		5.0	1.7	ug/L			11/10/22 13:03	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 13:03	1
Ethyl ether	ND		2.0	0.35	ug/L			11/10/22 13:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.58	ug/L			11/10/22 13:03	1
Isopropyl alcohol	ND		40	5.5	ug/L			11/10/22 13:03	1
Acetone	ND		15	6.6	ug/L			11/10/22 13:03	1
Chloroform	ND		1.0	0.36	ug/L			11/10/22 13:03	1
Benzene	ND		1.0	0.31	ug/L			11/10/22 13:03	1
1,1,1-Trichloroethane	ND		1.0	0.39	ug/L			11/10/22 13:03	1
Bromomethane	ND		5.0	2.4	ug/L			11/10/22 13:03	1
Chloromethane	ND		2.0	0.75	ug/L			11/10/22 13:03	1
Iodomethane	ND		5.0	2.6	ug/L			11/10/22 13:03	1
Dibromomethane	ND		1.0	0.34	ug/L			11/10/22 13:03	1
Chlorobromomethane	ND		1.0	0.40	ug/L			11/10/22 13:03	1
Chloroethane	ND		4.0	1.4	ug/L			11/10/22 13:03	1
Vinyl chloride	ND		2.0	0.51	ug/L			11/10/22 13:03	1
Methylene Chloride	ND		2.0	0.94	ug/L			11/10/22 13:03	1
Carbon disulfide	ND		2.0	0.63	ug/L			11/10/22 13:03	1
Bromoform	ND		2.0	1.2	ug/L			11/10/22 13:03	1
Dichlorobromomethane	ND		1.0	0.39	ug/L			11/10/22 13:03	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			11/10/22 13:03	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			11/10/22 13:03	1
2-Methyl-2-propanol	ND		10	3.6	ug/L			11/10/22 13:03	1
Trichlorofluoromethane	ND		2.0	0.57	ug/L			11/10/22 13:03	1
Dichlorodifluoromethane	ND		3.0	0.96	ug/L			11/10/22 13:03	1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: Trip Blank
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.0	0.73	ug/L			11/10/22 13:03	1
Isobutyl alcohol	ND		110	37	ug/L			11/10/22 13:03	1
1,2-Dichloropropane	ND		1.0	0.52	ug/L			11/10/22 13:03	1
2-Butanone (MEK)	ND		15	5.9	ug/L			11/10/22 13:03	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/10/22 13:03	1
Trichloroethene	ND		1.0	0.30	ug/L			11/10/22 13:03	1
Methyl acetate	ND		5.0	1.6	ug/L			11/10/22 13:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/10/22 13:03	1
1,2,3-Trichlorobenzene	ND		2.0	0.70	ug/L			11/10/22 13:03	1
Hexachlorobutadiene	ND		2.0	1.2	ug/L			11/10/22 13:03	1
Naphthalene	ND		2.0	0.63	ug/L			11/10/22 13:03	1
o-Xylene	ND		1.0	0.33	ug/L			11/10/22 13:03	1
2-Chlorotoluene	ND		1.0	0.34	ug/L			11/10/22 13:03	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			11/10/22 13:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			11/10/22 13:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	1.8	ug/L			11/10/22 13:03	1
1,2,3-Trichloropropane	ND		2.5	0.86	ug/L			11/10/22 13:03	1
Ethyl methacrylate	ND		3.0	0.86	ug/L			11/10/22 13:03	1
tert-Butylbenzene	ND		1.0	0.42	ug/L			11/10/22 13:03	1
Isopropylbenzene	ND		1.0	0.36	ug/L			11/10/22 13:03	1
4-Isopropyltoluene	ND		1.0	0.43	ug/L			11/10/22 13:03	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		4.0	1.2	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,2-Dichlorobenzene	ND		4.0	0.22	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,3-Dichlorobenzene	ND		10	0.29	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,4-Dioxane	ND		20	0.43	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,4,5-Trichlorophenol	ND		10	1.1	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,4,6-Trichlorophenol	ND		10	0.54	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,4-Dimethylphenol	ND		10	0.55	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,4-Dinitrotoluene	ND		10	1.6	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,4-Dichlorophenol	ND		10	0.61	ug/L		11/03/22 12:06	11/15/22 15:50	1
2-Chlorophenol	ND		10	0.93	ug/L		11/03/22 12:06	11/15/22 15:50	1
2-Chloronaphthalene	ND		4.0	0.51	ug/L		11/03/22 12:06	11/15/22 15:50	1
2-Nitrophenol	ND		10	1.3	ug/L		11/03/22 12:06	11/15/22 15:50	1
2-Methylphenol	ND		10	0.94	ug/L		11/03/22 12:06	11/15/22 15:50	1
2-Nitroaniline	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 15:50	1
3-Nitroaniline	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 15:50	1
4,6-Dinitro-2-methylphenol	ND		50	8.7	ug/L		11/03/22 12:06	11/15/22 15:50	1
4-Bromophenyl phenyl ether	ND		10	0.41	ug/L		11/03/22 12:06	11/15/22 15:50	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		11/03/22 12:06	11/15/22 15:50	1
4-Chloroaniline	ND		10	2.0	ug/L		11/03/22 12:06	11/15/22 15:50	1
4-Chlorophenyl phenyl ether	ND		10	1.6	ug/L		11/03/22 12:06	11/15/22 15:50	1
4-Nitrophenol	ND		10	3.0	ug/L		11/03/22 12:06	11/15/22 15:50	1
4-Nitroaniline	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 15:50	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.0	0.60	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzo[k]fluoranthene	ND		4.0	0.44	ug/L		11/03/22 12:06	11/15/22 15:50	1
Anthracene	ND		4.0	0.40	ug/L		11/03/22 12:06	11/15/22 15:50	1
Acetophenone	ND		10	0.41	ug/L		11/03/22 12:06	11/15/22 15:50	1
Acenaphthylene	ND		4.0	0.47	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzo[a]anthracene	ND		4.0	0.86	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzo[b]fluoranthene	ND		4.0	1.2	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzo[g,h,i]perylene	ND		4.0	0.48	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzo[a]pyrene	ND		4.0	0.70	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzyl alcohol	ND		10	0.22	ug/L		11/03/22 12:06	11/15/22 15:50	1
Bis(2-chloroethoxy)methane	ND		10	0.93	ug/L		11/03/22 12:06	11/15/22 15:50	1
Bis(2-chloroethyl)ether	ND		10	0.79	ug/L		11/03/22 12:06	11/15/22 15:50	1
Bis(2-ethylhexyl) phthalate	ND		10	2.3	ug/L		11/03/22 12:06	11/15/22 15:50	1
Butyl benzyl phthalate	ND		4.0	0.96	ug/L		11/03/22 12:06	11/15/22 15:50	1
Carbazole	ND		4.0	0.41	ug/L		11/03/22 12:06	11/15/22 15:50	1
Chrysene	ND		4.0	0.52	ug/L		11/03/22 12:06	11/15/22 15:50	1
Dibenz(a,h)anthracene	ND		10	2.1	ug/L		11/03/22 12:06	11/15/22 15:50	1
Di-n-butyl phthalate	ND		4.0	1.1	ug/L		11/03/22 12:06	11/15/22 15:50	1
Di-n-octyl phthalate	ND		10	3.8	ug/L		11/03/22 12:06	11/15/22 15:50	1
Dibenzofuran	ND		4.0	0.62	ug/L		11/03/22 12:06	11/15/22 15:50	1
Diethyl phthalate	ND		4.0	0.36	ug/L		11/03/22 12:06	11/15/22 15:50	1
Dimethyl phthalate	ND		4.0	0.20	ug/L		11/03/22 12:06	11/15/22 15:50	1
Fluoranthene	ND		4.0	0.86	ug/L		11/03/22 12:06	11/15/22 15:50	1
Fluorene	ND		4.0	0.30	ug/L		11/03/22 12:06	11/15/22 15:50	1
Hexachlorobenzene	ND		10	0.63	ug/L		11/03/22 12:06	11/15/22 15:50	1
Hexachlorobutadiene	ND		10	3.2	ug/L		11/03/22 12:06	11/15/22 15:50	1
Hexachloroethane	ND		10	0.94	ug/L		11/03/22 12:06	11/15/22 15:50	1
Indeno[1,2,3-cd]pyrene	ND	*+	10	2.9	ug/L		11/03/22 12:06	11/15/22 15:50	1
Isophorone	ND		10	0.20	ug/L		11/03/22 12:06	11/15/22 15:50	1
N-Nitrosodi-n-propylamine	ND		10	0.33	ug/L		11/03/22 12:06	11/15/22 15:50	1
N-Nitrosodiphenylamine	ND		10	0.42	ug/L		11/03/22 12:06	11/15/22 15:50	1
Pentachlorophenol	ND		50	19	ug/L		11/03/22 12:06	11/15/22 15:50	1
Phenanthrene	ND		4.0	0.66	ug/L		11/03/22 12:06	11/15/22 15:50	1
Phenol	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 15:50	1
Pyrene	ND		10	0.35	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,4-Dichlorobenzene	ND		4.0	1.2	ug/L		11/03/22 12:06	11/15/22 15:50	1
Naphthalene	ND		4.0	0.28	ug/L		11/03/22 12:06	11/15/22 15:50	1
2-Methylnaphthalene	ND		4.0	1.4	ug/L		11/03/22 12:06	11/15/22 15:50	1
Nitrobenzene	**1.2**	**J**	10	0.77	ug/L		11/03/22 12:06	11/15/22 15:50	1
3,3'-Dichlorobenzidine	ND		50	3.0	ug/L		11/03/22 12:06	11/15/22 15:50	1
3 & 4 Methylphenol	ND		10	0.24	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,1'-Biphenyl	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,2,4,5-Tetrachlorobenzene	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,3-Dinitrobenzene	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 15:50	1
1-Methylnaphthalene	ND		4.0	0.22	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,3,4,6-Tetrachlorophenol	ND		50	1.9	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,6-Dichlorophenol	ND		10	1.3	ug/L		11/03/22 12:06	11/15/22 15:50	1
2,6-Dinitrotoluene	ND		10	1.8	ug/L		11/03/22 12:06	11/15/22 15:50	1
Aniline	ND	*1	10	1.9	ug/L		11/03/22 12:06	11/15/22 15:50	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azobenzene	ND		4.0	0.22	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzaldehyde	ND		5.0	1.9	ug/L		11/03/22 12:06	11/15/22 15:50	1
Benzidine	ND	*1	100	48	ug/L		11/03/22 12:06	11/15/22 15:50	1
Caprolactam	ND		5.0	2.4	ug/L		11/03/22 12:06	11/15/22 15:50	1
Diphenylamine	ND		10	1.0	ug/L		11/03/22 12:06	11/15/22 15:50	1
N-Nitrosodimethylamine	ND		10	0.28	ug/L		11/03/22 12:06	11/15/22 15:50	1
Pyridine	ND		20	1.6	ug/L		11/03/22 12:06	11/15/22 15:50	1
Hexadecane	ND		10	0.52	ug/L		11/03/22 12:06	11/15/22 15:50	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	4.8	ug/L		11/03/22 12:06	11/15/22 15:50	1
3-Methylphenol	ND		10	0.38	ug/L		11/03/22 12:06	11/15/22 15:50	1
4-Methylphenol	ND		10	0.36	ug/L		11/03/22 12:06	11/15/22 15:50	1
Famphur	ND		100	1.5	ug/L		11/03/22 12:06	11/15/22 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*47 - 119*	*11/03/22 12:06*	*11/15/22 15:50*	*1*
2-Fluorophenol (Surr)	*28*		*17 - 71*	*11/03/22 12:06*	*11/15/22 15:50*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*52 - 123*	*11/03/22 12:06*	*11/15/22 15:50*	*1*
Nitrobenzene-d5 (Surr)	*55*		*45 - 113*	*11/03/22 12:06*	*11/15/22 15:50*	*1*
Phenol-d5 (Surr)	*15*		*10 - 52*	*11/03/22 12:06*	*11/15/22 15:50*	*1*
Terphenyl-d14 (Surr)	*58*		*50 - 123*	*11/03/22 12:06*	*11/15/22 15:50*	*1*

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		4.0	1.2	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,2-Dichlorobenzene	ND		4.0	0.22	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,3-Dichlorobenzene	ND		10	0.29	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,4-Dioxane	ND		20	0.43	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,4,5-Trichlorophenol	ND		10	1.1	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,4,6-Trichlorophenol	ND		10	0.54	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,4-Dimethylphenol	ND		10	0.55	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,4-Dinitrotoluene	ND		10	1.6	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,4-Dichlorophenol	ND		10	0.61	ug/L		11/03/22 12:06	11/15/22 16:12	1
2-Chlorophenol	ND		10	0.93	ug/L		11/03/22 12:06	11/15/22 16:12	1
2-Chloronaphthalene	ND		4.0	0.51	ug/L		11/03/22 12:06	11/15/22 16:12	1
2-Nitrophenol	ND		10	1.3	ug/L		11/03/22 12:06	11/15/22 16:12	1
2-Methylphenol	ND		10	0.94	ug/L		11/03/22 12:06	11/15/22 16:12	1
2-Nitroaniline	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 16:12	1
3-Nitroaniline	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 16:12	1
4,6-Dinitro-2-methylphenol	ND		50	8.7	ug/L		11/03/22 12:06	11/15/22 16:12	1
4-Bromophenyl phenyl ether	ND		10	0.41	ug/L		11/03/22 12:06	11/15/22 16:12	1
4-Chloro-3-methylphenol	ND		10	2.3	ug/L		11/03/22 12:06	11/15/22 16:12	1
4-Chloroaniline	ND		10	2.0	ug/L		11/03/22 12:06	11/15/22 16:12	1
4-Chlorophenyl phenyl ether	ND		10	1.6	ug/L		11/03/22 12:06	11/15/22 16:12	1
4-Nitrophenol	ND		10	3.0	ug/L		11/03/22 12:06	11/15/22 16:12	1
4-Nitroaniline	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 16:12	1
Acenaphthene	ND		4.0	0.60	ug/L		11/03/22 12:06	11/15/22 16:12	1
Benzo[k]fluoranthene	ND		4.0	0.44	ug/L		11/03/22 12:06	11/15/22 16:12	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		4.0	0.40	ug/L		11/03/22 12:06	11/15/22 16:12	1
Acetophenone	ND		10	0.41	ug/L		11/03/22 12:06	11/15/22 16:12	1
Acenaphthylene	ND		4.0	0.47	ug/L		11/03/22 12:06	11/15/22 16:12	1
Benzo[a]anthracene	ND		4.0	0.86	ug/L		11/03/22 12:06	11/15/22 16:12	1
Benzo[b]fluoranthene	ND		4.0	1.2	ug/L		11/03/22 12:06	11/15/22 16:12	1
Benzo[g,h,i]perylene	ND		4.0	0.48	ug/L		11/03/22 12:06	11/15/22 16:12	1
Benzo[a]pyrene	ND		4.0	0.70	ug/L		11/03/22 12:06	11/15/22 16:12	1
Benzyl alcohol	ND		10	0.22	ug/L		11/03/22 12:06	11/15/22 16:12	1
Bis(2-chloroethoxy)methane	ND		10	0.93	ug/L		11/03/22 12:06	11/15/22 16:12	1
Bis(2-chloroethyl)ether	ND		10	0.79	ug/L		11/03/22 12:06	11/15/22 16:12	1
Bis(2-ethylhexyl) phthalate	ND		10	2.3	ug/L		11/03/22 12:06	11/15/22 16:12	1
Butyl benzyl phthalate	ND		4.0	0.95	ug/L		11/03/22 12:06	11/15/22 16:12	1
Carbazole	ND		4.0	0.41	ug/L		11/03/22 12:06	11/15/22 16:12	1
Chrysene	ND		4.0	0.52	ug/L		11/03/22 12:06	11/15/22 16:12	1
Dibenz(a,h)anthracene	ND		10	2.1	ug/L		11/03/22 12:06	11/15/22 16:12	1
Di-n-butyl phthalate	ND		4.0	1.1	ug/L		11/03/22 12:06	11/15/22 16:12	1
Di-n-octyl phthalate	ND		10	3.8	ug/L		11/03/22 12:06	11/15/22 16:12	1
Dibenzofuran	ND		4.0	0.62	ug/L		11/03/22 12:06	11/15/22 16:12	1
Diethyl phthalate	ND		4.0	0.36	ug/L		11/03/22 12:06	11/15/22 16:12	1
Dimethyl phthalate	ND		4.0	0.20	ug/L		11/03/22 12:06	11/15/22 16:12	1
Fluoranthene	ND		4.0	0.86	ug/L		11/03/22 12:06	11/15/22 16:12	1
Fluorene	ND		4.0	0.30	ug/L		11/03/22 12:06	11/15/22 16:12	1
Hexachlorobenzene	ND		10	0.63	ug/L		11/03/22 12:06	11/15/22 16:12	1
Hexachlorobutadiene	ND		10	3.1	ug/L		11/03/22 12:06	11/15/22 16:12	1
Hexachloroethane	ND		10	0.94	ug/L		11/03/22 12:06	11/15/22 16:12	1
Indeno[1,2,3-cd]pyrene	ND	*+	10	2.9	ug/L		11/03/22 12:06	11/15/22 16:12	1
Isophorone	ND		10	0.20	ug/L		11/03/22 12:06	11/15/22 16:12	1
N-Nitrosodi-n-propylamine	ND		10	0.33	ug/L		11/03/22 12:06	11/15/22 16:12	1
N-Nitrosodiphenylamine	ND		10	0.42	ug/L		11/03/22 12:06	11/15/22 16:12	1
Pentachlorophenol	ND		50	19	ug/L		11/03/22 12:06	11/15/22 16:12	1
Phenanthrene	ND		4.0	0.65	ug/L		11/03/22 12:06	11/15/22 16:12	1
Phenol	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 16:12	1
Pyrene	ND		10	0.35	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,4-Dichlorobenzene	ND		4.0	1.2	ug/L		11/03/22 12:06	11/15/22 16:12	1
Naphthalene	ND		4.0	0.28	ug/L		11/03/22 12:06	11/15/22 16:12	1
2-Methylnaphthalene	ND		4.0	1.4	ug/L		11/03/22 12:06	11/15/22 16:12	1
Nitrobenzene	ND		10	0.77	ug/L		11/03/22 12:06	11/15/22 16:12	1
3,3'-Dichlorobenzidine	ND		50	3.0	ug/L		11/03/22 12:06	11/15/22 16:12	1
3 & 4 Methylphenol	ND		10	0.24	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,1'-Biphenyl	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,2,4,5-Tetrachlorobenzene	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,3-Dinitrobenzene	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 16:12	1
1-Methylnaphthalene	ND		4.0	0.22	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,3,4,6-Tetrachlorophenol	ND		50	1.9	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,6-Dichlorophenol	ND		10	1.3	ug/L		11/03/22 12:06	11/15/22 16:12	1
2,6-Dinitrotoluene	ND		10	1.8	ug/L		11/03/22 12:06	11/15/22 16:12	1
Aniline	ND	*1	10	1.9	ug/L		11/03/22 12:06	11/15/22 16:12	1
Azobenzene	ND		4.0	0.22	ug/L		11/03/22 12:06	11/15/22 16:12	1
Benzaldehyde	ND		5.0	1.9	ug/L		11/03/22 12:06	11/15/22 16:12	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzidine	ND	*1	100	48	ug/L		11/03/22 12:06	11/15/22 16:12	1
Caprolactam	ND		5.0	2.4	ug/L		11/03/22 12:06	11/15/22 16:12	1
Diphenylamine	ND		10	1.0	ug/L		11/03/22 12:06	11/15/22 16:12	1
N-Nitrosodimethylamine	ND		10	0.28	ug/L		11/03/22 12:06	11/15/22 16:12	1
Pyridine	ND		20	1.6	ug/L		11/03/22 12:06	11/15/22 16:12	1
Hexadecane	ND		10	0.52	ug/L		11/03/22 12:06	11/15/22 16:12	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	4.8	ug/L		11/03/22 12:06	11/15/22 16:12	1
3-Methylphenol	ND		10	0.38	ug/L		11/03/22 12:06	11/15/22 16:12	1
4-Methylphenol	ND		10	0.36	ug/L		11/03/22 12:06	11/15/22 16:12	1
Famphur	ND		100	1.5	ug/L		11/03/22 12:06	11/15/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*47 - 119*	*11/03/22 12:06*	*11/15/22 16:12*	*1*
2-Fluorophenol (Surr)	*35*		*17 - 71*	*11/03/22 12:06*	*11/15/22 16:12*	*1*
2,4,6-Tribromophenol (Surr)	*80*		*52 - 123*	*11/03/22 12:06*	*11/15/22 16:12*	*1*
Nitrobenzene-d5 (Surr)	*74*		*45 - 113*	*11/03/22 12:06*	*11/15/22 16:12*	*1*
Phenol-d5 (Surr)	*18*		*10 - 52*	*11/03/22 12:06*	*11/15/22 16:12*	*1*
Terphenyl-d14 (Surr)	*64*		*50 - 123*	*11/03/22 12:06*	*11/15/22 16:12*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		1.0	0.17	ug/L		10/31/22 12:35	11/04/22 23:38	1
PCB-1016	ND		1.0	0.16	ug/L		10/31/22 12:35	11/04/22 23:38	1
PCB-1232	ND		1.0	0.12	ug/L		10/31/22 12:35	11/04/22 23:38	1
PCB-1242	ND		1.0	0.096	ug/L		10/31/22 12:35	11/04/22 23:38	1
PCB-1248	ND		1.0	0.16	ug/L		10/31/22 12:35	11/04/22 23:38	1
PCB-1254	ND		1.0	0.13	ug/L		10/31/22 12:35	11/04/22 23:38	1
PCB-1260	ND		1.0	0.082	ug/L		10/31/22 12:35	11/04/22 23:38	1
Polychlorinated biphenyls, Total	ND		1.0	0.068	ug/L		10/31/22 12:35	11/04/22 23:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*50*		*29 - 115*	*10/31/22 12:35*	*11/04/22 23:38*	*1*
DCB Decachlorobiphenyl	*76*		*26 - 135*	*10/31/22 12:35*	*11/04/22 23:38*	*1*

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		1.0	0.17	ug/L		10/31/22 12:35	11/04/22 23:55	1
PCB-1016	ND		1.0	0.16	ug/L		10/31/22 12:35	11/04/22 23:55	1
PCB-1232	ND		1.0	0.12	ug/L		10/31/22 12:35	11/04/22 23:55	1
PCB-1242	ND		1.0	0.096	ug/L		10/31/22 12:35	11/04/22 23:55	1
PCB-1248	ND		1.0	0.16	ug/L		10/31/22 12:35	11/04/22 23:55	1
PCB-1254	ND		1.0	0.13	ug/L		10/31/22 12:35	11/04/22 23:55	1
PCB-1260	ND		1.0	0.082	ug/L		10/31/22 12:35	11/04/22 23:55	1
Polychlorinated biphenyls, Total	ND		1.0	0.067	ug/L		10/31/22 12:35	11/04/22 23:55	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	41		29 - 115	10/31/22 12:35	11/04/22 23:55	1
DCB Decachlorobiphenyl	75		26 - 135	10/31/22 12:35	11/04/22 23:55	1

Method: SW846 6010C - Metals (ICP)

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		11/04/22 15:07	11/08/22 05:42	1
Barium	**10**		10	0.82	ug/L		11/04/22 15:07	11/08/22 05:42	1
Cadmium	**0.81**	**J**	5.0	0.13	ug/L		11/04/22 15:07	11/08/22 05:42	1
Chromium	**2.9**	**J**	10	0.66	ug/L		11/04/22 15:07	11/08/22 05:42	1
Lead	**250**		9.0	2.7	ug/L		11/04/22 15:07	11/08/22 05:42	1
Selenium	ND		20	6.3	ug/L		11/04/22 15:07	11/08/22 05:42	1
Silver	ND		10	2.0	ug/L		11/04/22 15:07	11/08/22 05:42	1

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		11/04/22 15:07	11/08/22 05:47	1
Barium	**43**		10	0.82	ug/L		11/04/22 15:07	11/08/22 05:47	1
Cadmium	ND		5.0	0.13	ug/L		11/04/22 15:07	11/08/22 05:47	1
Chromium	**0.94**	**J**	10	0.66	ug/L		11/04/22 15:07	11/08/22 05:47	1
Lead	ND		9.0	2.7	ug/L		11/04/22 15:07	11/08/22 05:47	1
Selenium	ND		20	6.3	ug/L		11/04/22 15:07	11/08/22 05:47	1
Silver	ND		10	2.0	ug/L		11/04/22 15:07	11/08/22 05:47	1

Method: SW846 7470A - Mercury (CVAA)

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.11**	**J B**	0.20	0.061	ug/L		11/14/22 18:07	11/15/22 14:38	1

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.15**	**J B**	0.20	0.061	ug/L		11/14/22 18:07	11/15/22 14:41	1

General Chemistry

Client Sample ID: Condensate Tank/Sump
Date Collected: 10/27/22 09:10
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010B)	**>160**		1.0	1.0	Degrees F			11/11/22 16:48	1
Cyanide, Total (SW846 9012B)	ND		0.010	0.0050	mg/L			11/07/22 15:12	1
Sulfide (SW846 9034)	ND		4.0	1.6	mg/L		10/31/22 16:20	10/31/22 16:29	1
pH adj. to 25 deg C (SW846 9040C)	**4.1**	**HF**	0.1	0.1	SU			11/03/22 14:19	1
Temperature (SW846 9040C)	**21.1**	**HF**	1.0	1.0	Degrees C			11/03/22 14:19	1

General Chemistry

Client Sample ID: Leachate Manhole
Date Collected: 10/27/22 08:45
Date Received: 10/29/22 09:30

Lab Sample ID: 280-168399-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010B)	**>160**		1.0	1.0	Degrees F			11/11/22 16:48	1
Cyanide, Total (SW846 9012B)	ND		0.010	0.0050	mg/L			11/07/22 15:15	1
Sulfide (SW846 9034)	ND		4.0	1.6	mg/L		10/31/22 16:20	10/31/22 16:29	1
pH adj. to 25 deg C (SW846 9040C)	**7.1**	**HF**	0.1	0.1	SU			11/01/22 13:51	1
Temperature (SW846 9040C)	**21.1**	**HF**	1.0	1.0	Degrees C			11/01/22 13:51	1

Surrogate Summary

Client: Tetra Tech BAS
Project/Site: Halehaka Landfill, Hawaii

Job ID: 280-168399-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	FBP (47-119)	2FP (17-71)	TBP (52-123)	NBZ (45-113)	PHL (10-52)	TPHL (50-123)
280-168399-1	Condensate Tank/Sump	59	28	73	55	15	58
280-168399-2	Leachate Manhole	75	35	80	74	18	64
LCS 280-592215/2-A	Lab Control Sample	78	36	92	77	22	86
LCSD 280-592215/3-A	Lab Control Sample Dup	76	33	93	71	22	85
MB 280-592215/1-A	Method Blank	62	31	61	64	15	92

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (29-115)	DCBP1 (26-135)
280-168399-1	Condensate Tank/Sump	50	76
280-168399-2	Leachate Manhole	41	75
LCS 280-591800/4-A	Lab Control Sample	49	87
LCSD 280-591800/5-A	Lab Control Sample Dup	52	85
MB 280-591800/1-A	Method Blank	56	85

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 280-593004/7
Matrix: Water
Analysis Batch: 593004

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.30	ug/L			11/10/22 12:10	1
Styrene	ND		1.0	0.36	ug/L			11/10/22 12:10	1
cis-1,3-Dichloropropene	ND		2.0	0.63	ug/L			11/10/22 12:10	1
trans-1,3-Dichloropropene	ND		2.0	0.65	ug/L			11/10/22 12:10	1
N-Propylbenzene	ND		1.0	0.53	ug/L			11/10/22 12:10	1
n-Butylbenzene	ND		1.0	0.48	ug/L			11/10/22 12:10	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			11/10/22 12:10	1
1,4-Dichlorobenzene	ND		1.0	0.39	ug/L			11/10/22 12:10	1
Ethylene Dibromide	ND		1.0	0.40	ug/L			11/10/22 12:10	1
Acrolein	ND		20	4.9	ug/L			11/10/22 12:10	1
3-Chloro-1-propene	ND		2.0	0.17	ug/L			11/10/22 12:10	1
1,2-Dichloroethane	ND		1.0	0.54	ug/L			11/10/22 12:10	1
Acrylonitrile	ND		20	4.5	ug/L			11/10/22 12:10	1
2-Pentanone	ND		6.0	3.7	ug/L			11/10/22 12:10	1
Vinyl acetate	ND		3.0	0.94	ug/L			11/10/22 12:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			11/10/22 12:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.37	ug/L			11/10/22 12:10	1
Bromobenzene	ND		1.0	0.40	ug/L			11/10/22 12:10	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/10/22 12:10	1
Toluene	ND		1.0	0.32	ug/L			11/10/22 12:10	1
Chlorobenzene	ND		1.0	0.42	ug/L			11/10/22 12:10	1
Tetrahydrofuran	ND		7.0	2.0	ug/L			11/10/22 12:10	1
Hexane	ND		2.0	0.16	ug/L			11/10/22 12:10	1
trans-1,4-Dichloro-2-butene	ND		3.0	1.4	ug/L			11/10/22 12:10	1
Cyclohexane	ND		1.0	0.44	ug/L			11/10/22 12:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.58	ug/L			11/10/22 12:10	1
1,4-Dioxane	ND		150	19	ug/L			11/10/22 12:10	1
Chlorodibromomethane	ND		2.0	0.62	ug/L			11/10/22 12:10	1
Tetrachloroethene	ND		1.0	0.40	ug/L			11/10/22 12:10	1
sec-Butylbenzene	ND		1.0	0.45	ug/L			11/10/22 12:10	1
1,3-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 12:10	1
n-Heptane	ND		5.0	0.70	ug/L			11/10/22 12:10	1
cis-1,2-Dichloroethene	ND		1.0	0.32	ug/L			11/10/22 12:10	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			11/10/22 12:10	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			11/10/22 12:10	1
m-Xylene & p-Xylene	ND		2.0	0.36	ug/L			11/10/22 12:10	1
1,3-Dichlorobenzene	ND		1.0	0.33	ug/L			11/10/22 12:10	1
1-Chlorohexane	ND		1.0	0.34	ug/L			11/10/22 12:10	1
Carbon tetrachloride	ND		1.0	0.57	ug/L			11/10/22 12:10	1
1,1-Dichloropropene	ND		1.0	0.42	ug/L			11/10/22 12:10	1
2-Hexanone	ND		5.0	1.7	ug/L			11/10/22 12:10	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			11/10/22 12:10	1
Ethyl ether	ND		2.0	0.35	ug/L			11/10/22 12:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.58	ug/L			11/10/22 12:10	1
Isopropyl alcohol	ND		40	5.5	ug/L			11/10/22 12:10	1
Acetone	ND		15	6.6	ug/L			11/10/22 12:10	1
Chloroform	ND		1.0	0.36	ug/L			11/10/22 12:10	1
Benzene	ND		1.0	0.31	ug/L			11/10/22 12:10	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 280-593004/7
Matrix: Water
Analysis Batch: 593004

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.39	ug/L			11/10/22 12:10	1
Bromomethane	ND		5.0	2.4	ug/L			11/10/22 12:10	1
Chloromethane	ND		2.0	0.75	ug/L			11/10/22 12:10	1
Iodomethane	ND		5.0	2.6	ug/L			11/10/22 12:10	1
Dibromomethane	ND		1.0	0.34	ug/L			11/10/22 12:10	1
Chlorobromomethane	ND		1.0	0.40	ug/L			11/10/22 12:10	1
Chloroethane	ND		4.0	1.4	ug/L			11/10/22 12:10	1
Vinyl chloride	ND		2.0	0.51	ug/L			11/10/22 12:10	1
Methylene Chloride	1.08	J	2.0	0.94	ug/L			11/10/22 12:10	1
Carbon disulfide	ND		2.0	0.63	ug/L			11/10/22 12:10	1
Bromoform	ND		2.0	1.2	ug/L			11/10/22 12:10	1
Dichlorobromomethane	ND		1.0	0.39	ug/L			11/10/22 12:10	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			11/10/22 12:10	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			11/10/22 12:10	1
2-Methyl-2-propanol	ND		10	3.6	ug/L			11/10/22 12:10	1
Trichlorofluoromethane	ND		2.0	0.57	ug/L			11/10/22 12:10	1
Dichlorodifluoromethane	ND		3.0	0.96	ug/L			11/10/22 12:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.0	0.73	ug/L			11/10/22 12:10	1
Isobutyl alcohol	ND		110	37	ug/L			11/10/22 12:10	1
1,2-Dichloropropane	ND		1.0	0.52	ug/L			11/10/22 12:10	1
2-Butanone (MEK)	ND		15	5.9	ug/L			11/10/22 12:10	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/10/22 12:10	1
Trichloroethene	ND		1.0	0.30	ug/L			11/10/22 12:10	1
Methyl acetate	ND		5.0	1.6	ug/L			11/10/22 12:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/10/22 12:10	1
1,2,3-Trichlorobenzene	ND		2.0	0.70	ug/L			11/10/22 12:10	1
Hexachlorobutadiene	ND		2.0	1.2	ug/L			11/10/22 12:10	1
Naphthalene	ND		2.0	0.63	ug/L			11/10/22 12:10	1
o-Xylene	ND		1.0	0.33	ug/L			11/10/22 12:10	1
2-Chlorotoluene	ND		1.0	0.34	ug/L			11/10/22 12:10	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			11/10/22 12:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			11/10/22 12:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	1.8	ug/L			11/10/22 12:10	1
1,2,3-Trichloropropane	ND		2.5	0.86	ug/L			11/10/22 12:10	1
Ethyl methacrylate	ND		3.0	0.86	ug/L			11/10/22 12:10	1
tert-Butylbenzene	ND		1.0	0.42	ug/L			11/10/22 12:10	1
Isopropylbenzene	ND		1.0	0.36	ug/L			11/10/22 12:10	1
4-Isopropyltoluene	ND		1.0	0.43	ug/L			11/10/22 12:10	1

Lab Sample ID: LCS 280-593004/1002
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	25.0	24.9		ug/L		99	76 - 121
Styrene	25.0	24.5		ug/L		98	79 - 120
cis-1,3-Dichloropropene	25.0	23.7		ug/L		95	75 - 120
trans-1,3-Dichloropropene	25.0	23.7		ug/L		95	66 - 127
N-Propylbenzene	25.0	24.2		ug/L		97	73 - 127

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 280-593004/1002
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
n-Butylbenzene	25.0	25.0		ug/L		100	69 - 130
4-Chlorotoluene	25.0	24.6		ug/L		98	74 - 124
1,4-Dichlorobenzene	25.0	24.0		ug/L		96	76 - 119
Ethylene Dibromide	25.0	23.2		ug/L		93	81 - 118
Acrolein	494	574		ug/L		116	10 - 207
3-Chloro-1-propene	25.0	24.1		ug/L		96	57 - 136
1,2-Dichloroethane	25.0	25.7		ug/L		103	61 - 130
Acrylonitrile	250	249		ug/L		100	65 - 133
2-Pentanone	80.0	84.4		ug/L		106	58 - 130
Vinyl acetate	50.0	49.6		ug/L		99	61 - 139
4-Methyl-2-pentanone (MIBK)	100	104		ug/L		104	56 - 135
1,3,5-Trimethylbenzene	25.0	25.0		ug/L		100	73 - 127
Bromobenzene	25.0	24.4		ug/L		98	75 - 122
Methylcyclohexane	25.0	23.9		ug/L		95	58 - 136
Toluene	25.0	25.6		ug/L		103	68 - 127
Chlorobenzene	25.0	24.2		ug/L		97	78 - 118
Tetrahydrofuran	50.0	48.7		ug/L		97	50 - 139
Hexane	25.0	20.1		ug/L		81	52 - 139
trans-1,4-Dichloro-2-butene	25.0	24.3		ug/L		97	44 - 131
Cyclohexane	25.0	23.0		ug/L		92	57 - 134
1,2,4-Trichlorobenzene	25.0	23.3		ug/L		93	73 - 124
1,4-Dioxane	500	483		ug/L		97	59 - 134
Chlorodibromomethane	25.0	23.2		ug/L		93	71 - 122
Tetrachloroethene	25.0	25.8		ug/L		103	72 - 127
sec-Butylbenzene	25.0	24.3		ug/L		97	72 - 127
1,3-Dichloropropane	25.0	24.0		ug/L		96	80 - 118
n-Heptane	25.0	22.2		ug/L		89	51 - 137
cis-1,2-Dichloroethene	25.0	25.2		ug/L		101	69 - 126
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	66 - 129
Methyl tert-butyl ether	25.0	25.2		ug/L		101	70 - 127
m-Xylene & p-Xylene	25.0	24.9		ug/L		100	76 - 122
1,3-Dichlorobenzene	25.0	24.6		ug/L		98	76 - 121
1-Chlorohexane	20.0	19.7		ug/L		98	66 - 124
Carbon tetrachloride	25.0	25.3		ug/L		101	60 - 133
1,1-Dichloropropene	25.0	25.3		ug/L		101	64 - 133
2-Hexanone	100	101		ug/L		101	58 - 134
2,2-Dichloropropane	25.0	25.8		ug/L		103	57 - 140
Ethyl ether	25.0	24.0		ug/L		96	66 - 129
1,1,1,2-Tetrachloroethane	25.0	24.1		ug/L		96	74 - 121
Acetone	100	101		ug/L		101	50 - 137
Chloroform	25.0	26.1		ug/L		104	68 - 128
Benzene	25.0	24.9		ug/L		100	69 - 126
1,1,1-Trichloroethane	25.0	26.2		ug/L		105	62 - 132
Bromomethane	25.0	23.5		ug/L		94	25 - 163
Chloromethane	25.0	22.4		ug/L		89	43 - 142
Iodomethane	25.0	18.2		ug/L		73	37 - 145
Dibromomethane	25.0	24.9		ug/L		100	68 - 129
Chlorobromomethane	25.0	24.5		ug/L		98	71 - 130
Chloroethane	25.0	24.9		ug/L		100	52 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 280-593004/1002
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	25.0	23.5		ug/L		94	53 - 141
Methylene Chloride	25.0	25.2		ug/L		101	64 - 128
Carbon disulfide	25.0	21.4		ug/L		86	56 - 128
Bromoform	25.0	22.3		ug/L		89	57 - 125
Dichlorobromomethane	25.0	24.8		ug/L		99	67 - 126
1,1-Dichloroethane	25.0	24.6		ug/L		98	66 - 130
1,1-Dichloroethene	25.0	22.9		ug/L		91	62 - 130
2-Methyl-2-propanol	250	244		ug/L		98	46 - 130
Trichlorofluoromethane	25.0	25.8		ug/L		103	57 - 144
Dichlorodifluoromethane	25.0	19.2		ug/L		77	26 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.0		ug/L		92	60 - 137
Isobutyl alcohol	625	585		ug/L		94	46 - 132
1,2-Dichloropropane	25.0	24.5		ug/L		98	68 - 127
2-Butanone (MEK)	100	103		ug/L		103	53 - 135
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	72 - 128
Trichloroethene	25.0	24.9		ug/L		100	70 - 125
Methyl acetate	50.0	48.8		ug/L		98	59 - 133
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	72 - 122
1,2,3-Trichlorobenzene	25.0	22.8		ug/L		91	70 - 127
Hexachlorobutadiene	25.0	23.8		ug/L		95	69 - 133
Naphthalene	25.0	21.9		ug/L		88	63 - 129
o-Xylene	25.0	25.1		ug/L		101	77 - 120
2-Chlorotoluene	25.0	24.4		ug/L		98	75 - 123
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	77 - 121
1,2,4-Trimethylbenzene	25.0	24.7		ug/L		99	74 - 124
1,2-Dibromo-3-Chloropropane	25.0	20.2		ug/L		81	58 - 122
1,2,3-Trichloropropane	25.0	23.8		ug/L		95	74 - 123
Ethyl methacrylate	25.0	24.4		ug/L		98	69 - 126
tert-Butylbenzene	25.0	24.9		ug/L		100	72 - 126
Isopropylbenzene	25.0	25.2		ug/L		101	70 - 127
4-Isopropyltoluene	25.0	25.7		ug/L		103	74 - 127

Lab Sample ID: LCS 280-593004/1003
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropyl alcohol	250	207		ug/L		83	38 - 130

Lab Sample ID: LCSD 280-593004/4
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene	25.0	28.4		ug/L		114	76 - 121	13	20
Styrene	25.0	27.8		ug/L		111	79 - 120	13	20
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	75 - 120	10	20
trans-1,3-Dichloropropene	25.0	27.4		ug/L		110	66 - 127	14	20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 280-593004/4
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene	25.0	27.2		ug/L		109	73 - 127	12	20
n-Butylbenzene	25.0	28.3		ug/L		113	69 - 130	12	20
4-Chlorotoluene	25.0	27.9		ug/L		112	74 - 124	13	20
1,4-Dichlorobenzene	25.0	27.0		ug/L		108	76 - 119	12	20
Ethylene Dibromide	25.0	26.9		ug/L		108	81 - 118	15	20
Acrolein	494	625		ug/L		127	10 - 207	9	23
3-Chloro-1-propene	25.0	26.8		ug/L		107	57 - 136	10	20
1,2-Dichloroethane	25.0	29.2		ug/L		117	61 - 130	13	20
Acrylonitrile	250	279		ug/L		112	65 - 133	12	20
2-Pentanone	80.0	94.5		ug/L		118	58 - 130	11	21
Vinyl acetate	50.0	56.5		ug/L		113	61 - 139	13	23
4-Methyl-2-pentanone (MIBK)	100	114		ug/L		114	56 - 135	10	20
1,3,5-Trimethylbenzene	25.0	28.2		ug/L		113	73 - 127	12	20
Bromobenzene	25.0	27.7		ug/L		111	75 - 122	13	20
Methylcyclohexane	25.0	26.1		ug/L		104	58 - 136	9	21
Toluene	25.0	29.7		ug/L		119	68 - 127	15	20
Chlorobenzene	25.0	28.1		ug/L		112	78 - 118	15	20
Tetrahydrofuran	50.0	53.4		ug/L		107	50 - 139	9	20
Hexane	25.0	20.8		ug/L		83	52 - 139	3	23
trans-1,4-Dichloro-2-butene	25.0	24.8		ug/L		99	44 - 131	2	24
Cyclohexane	25.0	24.8		ug/L		99	57 - 134	7	32
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		107	73 - 124	14	20
1,4-Dioxane	500	535		ug/L		107	59 - 134	10	24
Chlorodibromomethane	25.0	25.4		ug/L		102	71 - 122	9	20
Tetrachloroethene	25.0	28.8		ug/L		115	72 - 127	11	20
sec-Butylbenzene	25.0	27.3		ug/L		109	72 - 127	11	20
1,3-Dichloropropane	25.0	27.0		ug/L		108	80 - 118	12	20
n-Heptane	25.0	24.3		ug/L		97	51 - 137	9	22
cis-1,2-Dichloroethene	25.0	29.5		ug/L		118	69 - 126	16	20
trans-1,2-Dichloroethene	25.0	27.5		ug/L		110	66 - 129	12	20
Methyl tert-butyl ether	25.0	29.0		ug/L		116	70 - 127	14	20
m-Xylene & p-Xylene	25.0	28.2		ug/L		113	76 - 122	13	20
1,3-Dichlorobenzene	25.0	28.2		ug/L		113	76 - 121	14	20
1-Chlorohexane	20.0	22.4		ug/L		112	66 - 124	13	20
Carbon tetrachloride	25.0	28.0		ug/L		112	60 - 133	10	20
1,1-Dichloropropene	25.0	28.7		ug/L		115	64 - 133	12	20
2-Hexanone	100	111		ug/L		111	58 - 134	10	21
2,2-Dichloropropane	25.0	28.6		ug/L		114	57 - 140	10	22
Ethyl ether	25.0	27.8		ug/L		111	66 - 129	15	20
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		108	74 - 121	11	20
Acetone	100	110		ug/L		110	50 - 137	8	21
Chloroform	25.0	29.6		ug/L		119	68 - 128	13	20
Benzene	25.0	28.6		ug/L		114	69 - 126	14	20
1,1,1-Trichloroethane	25.0	29.7		ug/L		119	62 - 132	13	20
Bromomethane	25.0	29.8		ug/L		119	25 - 163	24	40
Chloromethane	25.0	24.5		ug/L		98	43 - 142	9	20
Iodomethane	25.0	21.2		ug/L		85	37 - 145	15	38
Dibromomethane	25.0	28.5		ug/L		114	68 - 129	14	20
Chlorobromomethane	25.0	28.3		ug/L		113	71 - 130	14	20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 280-593004/4
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloroethane	25.0	25.5		ug/L		102	52 - 144	2	30
Vinyl chloride	25.0	25.4		ug/L		102	53 - 141	8	25
Methylene Chloride	25.0	28.7		ug/L		115	64 - 128	13	20
Carbon disulfide	25.0	23.1		ug/L		92	56 - 128	7	20
Bromoform	25.0	23.9		ug/L		96	57 - 125	7	20
Dichlorobromomethane	25.0	27.5		ug/L		110	67 - 126	10	20
1,1-Dichloroethane	25.0	28.2		ug/L		113	66 - 130	14	20
1,1-Dichloroethene	25.0	26.2		ug/L		105	62 - 130	14	21
2-Methyl-2-propanol	250	273		ug/L		109	46 - 130	11	29
Trichlorofluoromethane	25.0	25.8		ug/L		103	57 - 144	0	28
Dichlorodifluoromethane	25.0	19.8		ug/L		79	26 - 152	3	21
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.4		ug/L		98	60 - 137	6	23
Isobutyl alcohol	625	626		ug/L		100	46 - 132	7	30
1,2-Dichloropropane	25.0	28.7		ug/L		115	68 - 127	16	20
2-Butanone (MEK)	100	113		ug/L		113	53 - 135	9	20
1,1,2-Trichloroethane	25.0	28.9		ug/L		115	72 - 128	15	20
Trichloroethene	25.0	28.4		ug/L		113	70 - 125	13	20
Methyl acetate	50.0	53.2		ug/L		106	59 - 133	9	20
1,1,2,2-Tetrachloroethane	25.0	25.7		ug/L		103	72 - 122	8	20
1,2,3-Trichlorobenzene	25.0	26.8		ug/L		107	70 - 127	16	20
Hexachlorobutadiene	25.0	26.3		ug/L		105	69 - 133	10	20
Naphthalene	25.0	24.7		ug/L		99	63 - 129	12	21
o-Xylene	25.0	28.6		ug/L		114	77 - 120	13	20
2-Chlorotoluene	25.0	27.0		ug/L		108	75 - 123	10	20
1,2-Dichlorobenzene	25.0	27.9		ug/L		112	77 - 121	11	20
1,2,4-Trimethylbenzene	25.0	27.8		ug/L		111	74 - 124	12	20
1,2-Dibromo-3-Chloropropane	25.0	22.9		ug/L		92	58 - 122	12	21
1,2,3-Trichloropropane	25.0	25.4		ug/L		101	74 - 123	6	20
Ethyl methacrylate	25.0	27.4		ug/L		110	69 - 126	11	20
tert-Butylbenzene	25.0	28.0		ug/L		112	72 - 126	11	20
Isopropylbenzene	25.0	28.4		ug/L		114	70 - 127	12	20
4-Isopropyltoluene	25.0	28.3		ug/L		113	74 - 127	10	20

Lab Sample ID: LCSD 280-593004/5
Matrix: Water
Analysis Batch: 593004

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Isopropyl alcohol	250	133		ug/L		53	38 - 130	NaN	20

Lab Sample ID: 280-168404-E-3 MSD
Matrix: Water
Analysis Batch: 593004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene	ND		25.0	28.3		ug/L		113	76 - 121	3	20
Styrene	ND		25.0	27.1		ug/L		108	79 - 120	4	20
cis-1,3-Dichloropropene	ND		25.0	24.3		ug/L		97	75 - 120	2	20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-168404-E-3 MSD
Matrix: Water
Analysis Batch: 593004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	66 - 127	3	20
N-Propylbenzene	ND		25.0	28.0		ug/L		112	73 - 127	6	20
n-Butylbenzene	ND		25.0	28.8		ug/L		115	69 - 130	5	20
4-Chlorotoluene	ND		25.0	27.0		ug/L		108	74 - 124	1	20
1,4-Dichlorobenzene	ND		25.0	26.6		ug/L		106	76 - 119	5	20
Ethylene Dibromide	ND		25.0	25.4		ug/L		102	81 - 118	2	20
Acrolein	ND		494	620		ug/L		126	10 - 207	8	23
3-Chloro-1-propene	ND		25.0	25.0		ug/L		100	57 - 136	7	20
1,2-Dichloroethane	ND		25.0	28.0		ug/L		112	61 - 130	5	20
Acrylonitrile	ND		250	271		ug/L		108	65 - 133	6	20
2-Pentanone	ND		80.0	92.5		ug/L		116	58 - 130	3	21
Vinyl acetate	ND		50.0	50.7		ug/L		101	61 - 139	3	23
4-Methyl-2-pentanone (MIBK)	ND		100	114		ug/L		114	56 - 135	4	20
1,3,5-Trimethylbenzene	ND		25.0	28.2		ug/L		113	73 - 127	4	20
Bromobenzene	ND		25.0	27.5		ug/L		110	75 - 122	7	20
Methylcyclohexane	ND		25.0	27.7		ug/L		111	58 - 136	3	21
Toluene	ND		25.0	28.9		ug/L		116	68 - 127	4	20
Chlorobenzene	ND		25.0	26.4		ug/L		106	78 - 118	1	20
Tetrahydrofuran	ND		50.0	51.9		ug/L		104	50 - 139	2	20
Hexane	ND		25.0	19.6		ug/L		78	52 - 139	2	23
trans-1,4-Dichloro-2-butene	ND		25.0	24.3		ug/L		97	44 - 131	5	24
Cyclohexane	ND		25.0	25.9		ug/L		103	57 - 134	1	32
1,2,4-Trichlorobenzene	ND		25.0	26.2		ug/L		105	73 - 124	7	20
1,4-Dioxane	ND		500	539		ug/L		108	59 - 134	1	24
Chlorodibromomethane	ND		25.0	23.3		ug/L		93	71 - 122	3	20
Tetrachloroethene	ND		25.0	28.6		ug/L		115	72 - 127	0	20
sec-Butylbenzene	ND		25.0	28.7		ug/L		115	72 - 127	4	20
1,3-Dichloropropane	ND		25.0	25.7		ug/L		103	80 - 118	3	20
n-Heptane	ND		25.0	22.9		ug/L		91	51 - 137	1	22
cis-1,2-Dichloroethene	ND		25.0	27.7		ug/L		111	69 - 126	4	20
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	66 - 129	2	20
Methyl tert-butyl ether	ND		25.0	27.5		ug/L		110	70 - 127	4	20
m-Xylene & p-Xylene	ND		25.0	27.7		ug/L		111	76 - 122	2	20
1,3-Dichlorobenzene	ND		25.0	27.0		ug/L		108	76 - 121	4	20
1-Chlorohexane	ND		20.0	23.2		ug/L		116	66 - 124	4	20
Carbon tetrachloride	ND		25.0	28.7		ug/L		115	60 - 133	3	20
1,1-Dichloropropene	ND		25.0	28.7		ug/L		115	64 - 133	1	20
2-Hexanone	ND		100	111		ug/L		111	58 - 134	2	21
2,2-Dichloropropane	ND		25.0	24.8		ug/L		99	57 - 140	3	22
Ethyl ether	ND		25.0	26.4		ug/L		106	66 - 129	6	20
1,1,1,2-Tetrachloroethane	ND		25.0	25.5		ug/L		102	74 - 121	1	20
Acetone	ND		100	107		ug/L		107	50 - 137	6	21
Chloroform	ND		25.0	28.5		ug/L		114	68 - 128	2	20
Benzene	ND		25.0	27.8		ug/L		111	69 - 126	4	20
1,1,1-Trichloroethane	ND		25.0	30.1		ug/L		120	62 - 132	3	20
Bromomethane	ND		25.0	28.4		ug/L		113	25 - 163	16	40
Chloromethane	ND		25.0	24.9		ug/L		100	43 - 142	0	20
Iodomethane	ND		25.0	22.1		ug/L		88	37 - 145	14	38
Dibromomethane	ND		25.0	26.3		ug/L		105	68 - 129	3	20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-168404-E-3 MSD
Matrix: Water
Analysis Batch: 593004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorobromomethane	ND		25.0	26.3		ug/L		105	71 - 130	3	20
Chloroethane	ND		25.0	27.3		ug/L		109	52 - 144	1	30
Vinyl chloride	ND		25.0	27.5		ug/L		110	53 - 141	2	25
Methylene Chloride	ND		25.0	25.6		ug/L		102	64 - 128	2	20
Carbon disulfide	ND		25.0	22.1		ug/L		89	56 - 128	3	20
Bromoform	ND		25.0	22.1		ug/L		88	57 - 125	5	20
Dichlorobromomethane	ND		25.0	26.2		ug/L		105	67 - 126	4	20
1,1-Dichloroethane	ND		25.0	27.5		ug/L		110	66 - 130	3	20
1,1-Dichloroethene	ND		25.0	25.6		ug/L		103	62 - 130	3	21
2-Methyl-2-propanol	ND		250	279		ug/L		112	46 - 130	5	29
Trichlorofluoromethane	ND		25.0	30.0		ug/L		120	57 - 144	4	28
Dichlorodifluoromethane	ND		25.0	22.3		ug/L		89	26 - 152	3	21
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.5		ug/L		98	60 - 137	4	23
Isobutyl alcohol	ND		625	669		ug/L		107	46 - 132	5	30
1,2-Dichloropropane	ND		25.0	27.0		ug/L		108	68 - 127	4	20
2-Butanone (MEK)	ND		100	109		ug/L		109	53 - 135	4	20
1,1,2-Trichloroethane	ND		25.0	27.2		ug/L		109	72 - 128	5	20
Trichloroethene	ND		25.0	27.3		ug/L		109	70 - 125	4	20
Methyl acetate	ND		50.0	48.9		ug/L		98	59 - 133	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	25.3		ug/L		101	72 - 122	3	20
1,2,3-Trichlorobenzene	ND		25.0	26.8		ug/L		107	70 - 127	10	20
Hexachlorobutadiene	ND		25.0	27.0		ug/L		108	69 - 133	7	20
Naphthalene	ND		25.0	25.8		ug/L		103	63 - 129	11	21
o-Xylene	ND		25.0	27.8		ug/L		111	77 - 120	1	20
2-Chlorotoluene	ND		25.0	27.4		ug/L		110	75 - 123	5	20
1,2-Dichlorobenzene	ND		25.0	27.0		ug/L		108	77 - 121	3	20
1,2,4-Trimethylbenzene	ND		25.0	27.3		ug/L		109	74 - 124	5	20
1,2-Dibromo-3-Chloropropane	ND		25.0	22.7		ug/L		91	58 - 122	11	21
1,2,3-Trichloropropane	ND		25.0	25.7		ug/L		103	74 - 123	2	20
Ethyl methacrylate	ND		25.0	26.3		ug/L		105	69 - 126	3	20
tert-Butylbenzene	ND		25.0	28.4		ug/L		113	72 - 126	3	20
Isopropylbenzene	ND		25.0	28.4		ug/L		114	70 - 127	3	20
4-Isopropyltoluene	ND		25.0	29.0		ug/L		116	74 - 127	6	20

Lab Sample ID: 280-168404-F-3 MS
Matrix: Water
Analysis Batch: 593004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	ND		25.0	27.5		ug/L		110	76 - 121
Styrene	ND		25.0	26.1		ug/L		105	79 - 120
cis-1,3-Dichloropropene	ND		25.0	23.8		ug/L		95	75 - 120
trans-1,3-Dichloropropene	ND		25.0	24.2		ug/L		97	66 - 127
N-Propylbenzene	ND		25.0	26.3		ug/L		105	73 - 127
n-Butylbenzene	ND		25.0	27.3		ug/L		109	69 - 130
4-Chlorotoluene	ND		25.0	26.7		ug/L		107	74 - 124
1,4-Dichlorobenzene	ND		25.0	25.4		ug/L		102	76 - 119
Ethylene Dibromide	ND		25.0	24.9		ug/L		99	81 - 118

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-168404-F-3 MS
Matrix: Water
Analysis Batch: 593004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acrolein	ND		494	572		ug/L		116	10 - 207
3-Chloro-1-propene	ND		25.0	23.4		ug/L		94	57 - 136
1,2-Dichloroethane	ND		25.0	26.6		ug/L		106	61 - 130
Acrylonitrile	ND		250	256		ug/L		102	65 - 133
2-Pentanone	ND		80.0	89.9		ug/L		112	58 - 130
Vinyl acetate	ND		50.0	49.1		ug/L		98	61 - 139
4-Methyl-2-pentanone (MIBK)	ND		100	109		ug/L		109	56 - 135
1,3,5-Trimethylbenzene	ND		25.0	27.1		ug/L		108	73 - 127
Bromobenzene	ND		25.0	25.7		ug/L		103	75 - 122
Methylcyclohexane	ND		25.0	26.9		ug/L		108	58 - 136
Toluene	ND		25.0	27.9		ug/L		111	68 - 127
Chlorobenzene	ND		25.0	26.1		ug/L		104	78 - 118
Tetrahydrofuran	ND		50.0	50.9		ug/L		102	50 - 139
Hexane	ND		25.0	19.2		ug/L		77	52 - 139
trans-1,4-Dichloro-2-butene	ND		25.0	23.1		ug/L		92	44 - 131
Cyclohexane	ND		25.0	25.7		ug/L		103	57 - 134
1,2,4-Trichlorobenzene	ND		25.0	24.6		ug/L		98	73 - 124
1,4-Dioxane	ND		500	534		ug/L		107	59 - 134
Chlorodibromomethane	ND		25.0	22.6		ug/L		91	71 - 122
Tetrachloroethene	ND		25.0	28.6		ug/L		114	72 - 127
sec-Butylbenzene	ND		25.0	27.5		ug/L		110	72 - 127
1,3-Dichloropropane	ND		25.0	25.0		ug/L		100	80 - 118
n-Heptane	ND		25.0	23.0		ug/L		92	51 - 137
cis-1,2-Dichloroethene	ND		25.0	26.7		ug/L		107	69 - 126
trans-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	66 - 129
Methyl tert-butyl ether	ND		25.0	26.4		ug/L		106	70 - 127
m-Xylene & p-Xylene	ND		25.0	27.2		ug/L		109	76 - 122
1,3-Dichlorobenzene	ND		25.0	26.0		ug/L		104	76 - 121
1-Chlorohexane	ND		20.0	22.3		ug/L		112	66 - 124
Carbon tetrachloride	ND		25.0	27.8		ug/L		111	60 - 133
1,1-Dichloropropene	ND		25.0	28.3		ug/L		113	64 - 133
2-Hexanone	ND		100	108		ug/L		108	58 - 134
2,2-Dichloropropane	ND		25.0	24.1		ug/L		97	57 - 140
Ethyl ether	ND		25.0	24.8		ug/L		99	66 - 129
1,1,1,2-Tetrachloroethane	ND		25.0	25.7		ug/L		103	74 - 121
Acetone	ND		100	101		ug/L		101	50 - 137
Chloroform	ND		25.0	27.9		ug/L		112	68 - 128
Benzene	ND		25.0	26.7		ug/L		107	69 - 126
1,1,1-Trichloroethane	ND		25.0	29.3		ug/L		117	62 - 132
Bromomethane	ND		25.0	24.3		ug/L		97	25 - 163
Chloromethane	ND		25.0	25.0		ug/L		100	43 - 142
Iodomethane	ND		25.0	19.1		ug/L		77	37 - 145
Dibromomethane	ND		25.0	25.6		ug/L		102	68 - 129
Chlorobromomethane	ND		25.0	25.6		ug/L		102	71 - 130
Chloroethane	ND		25.0	27.1		ug/L		108	52 - 144
Vinyl chloride	ND		25.0	26.9		ug/L		107	53 - 141
Methylene Chloride	ND		25.0	25.0		ug/L		100	64 - 128
Carbon disulfide	ND		25.0	21.6		ug/L		86	56 - 128
Bromoform	ND		25.0	21.0		ug/L		84	57 - 125

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-168404-F-3 MS
Matrix: Water
Analysis Batch: 593004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorobromomethane	ND		25.0	25.1		ug/L		100	67 - 126
1,1-Dichloroethane	ND		25.0	26.7		ug/L		107	66 - 130
1,1-Dichloroethene	ND		25.0	24.8		ug/L		99	62 - 130
2-Methyl-2-propanol	ND		250	267		ug/L		107	46 - 130
Trichlorofluoromethane	ND		25.0	28.8		ug/L		115	57 - 144
Dichlorodifluoromethane	ND		25.0	21.6		ug/L		86	26 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.7		ug/L		95	60 - 137
Isobutyl alcohol	ND		625	636		ug/L		102	46 - 132
1,2-Dichloropropane	ND		25.0	25.9		ug/L		104	68 - 127
2-Butanone (MEK)	ND		100	105		ug/L		105	53 - 135
1,1,2-Trichloroethane	ND		25.0	25.9		ug/L		104	72 - 128
Trichloroethene	ND		25.0	26.3		ug/L		105	70 - 125
Methyl acetate	ND		50.0	49.5		ug/L		99	59 - 133
1,1,2,2-Tetrachloroethane	ND		25.0	24.6		ug/L		98	72 - 122
1,2,3-Trichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 127
Hexachlorobutadiene	ND		25.0	25.2		ug/L		101	69 - 133
Naphthalene	ND		25.0	23.2		ug/L		93	63 - 129
o-Xylene	ND		25.0	27.6		ug/L		110	77 - 120
2-Chlorotoluene	ND		25.0	26.2		ug/L		105	75 - 123
1,2-Dichlorobenzene	ND		25.0	26.2		ug/L		105	77 - 121
1,2,4-Trimethylbenzene	ND		25.0	26.1		ug/L		104	74 - 124
1,2-Dibromo-3-Chloropropane	ND		25.0	20.2		ug/L		81	58 - 122
1,2,3-Trichloropropane	ND		25.0	25.1		ug/L		100	74 - 123
Ethyl methacrylate	ND		25.0	25.5		ug/L		102	69 - 126
tert-Butylbenzene	ND		25.0	27.4		ug/L		110	72 - 126
Isopropylbenzene	ND		25.0	27.5		ug/L		110	70 - 127
4-Isopropyltoluene	ND		25.0	27.4		ug/L		110	74 - 127

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-592215/1-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		4.0	1.3	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,2-Dichlorobenzene	ND		4.0	0.23	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,3-Dichlorobenzene	ND		10	0.30	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,4-Dioxane	ND		20	0.45	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,4,5-Trichlorophenol	ND		10	1.2	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,4,6-Trichlorophenol	ND		10	0.56	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,4-Dimethylphenol	ND		10	0.58	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,4-Dinitrotoluene	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,4-Dichlorophenol	ND		10	0.64	ug/L		11/03/22 12:06	11/15/22 12:59	1
2-Chlorophenol	ND		10	0.97	ug/L		11/03/22 12:06	11/15/22 12:59	1
2-Chloronaphthalene	ND		4.0	0.53	ug/L		11/03/22 12:06	11/15/22 12:59	1
2-Nitrophenol	ND		10	1.4	ug/L		11/03/22 12:06	11/15/22 12:59	1
2-Methylphenol	ND		10	0.98	ug/L		11/03/22 12:06	11/15/22 12:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-592215/1-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 12:59	1
3-Nitroaniline	ND		10	2.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
4,6-Dinitro-2-methylphenol	ND		50	9.1	ug/L		11/03/22 12:06	11/15/22 12:59	1
4-Bromophenyl phenyl ether	ND		10	0.43	ug/L		11/03/22 12:06	11/15/22 12:59	1
4-Chloro-3-methylphenol	ND		10	2.4	ug/L		11/03/22 12:06	11/15/22 12:59	1
4-Chloroaniline	ND		10	2.1	ug/L		11/03/22 12:06	11/15/22 12:59	1
4-Chlorophenyl phenyl ether	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 12:59	1
4-Nitrophenol	ND		10	3.2	ug/L		11/03/22 12:06	11/15/22 12:59	1
4-Nitroaniline	ND		10	2.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
Acenaphthene	ND		4.0	0.63	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzo[k]fluoranthene	ND		4.0	0.46	ug/L		11/03/22 12:06	11/15/22 12:59	1
Anthracene	ND		4.0	0.42	ug/L		11/03/22 12:06	11/15/22 12:59	1
Acetophenone	ND		10	0.43	ug/L		11/03/22 12:06	11/15/22 12:59	1
Acenaphthylene	ND		4.0	0.49	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzo[a]anthracene	ND		4.0	0.90	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzo[b]fluoranthene	ND		4.0	1.3	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzo[g,h,i]perylene	ND		4.0	0.50	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzo[a]pyrene	ND		4.0	0.73	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzyl alcohol	ND		10	0.23	ug/L		11/03/22 12:06	11/15/22 12:59	1
Bis(2-chloroethoxy)methane	ND		10	0.97	ug/L		11/03/22 12:06	11/15/22 12:59	1
Bis(2-chloroethyl)ether	ND		10	0.83	ug/L		11/03/22 12:06	11/15/22 12:59	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		11/03/22 12:06	11/15/22 12:59	1
Butyl benzyl phthalate	ND		4.0	1.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
Carbazole	ND		4.0	0.43	ug/L		11/03/22 12:06	11/15/22 12:59	1
Chrysene	ND		4.0	0.54	ug/L		11/03/22 12:06	11/15/22 12:59	1
Dibenz(a,h)anthracene	ND		10	2.2	ug/L		11/03/22 12:06	11/15/22 12:59	1
Di-n-butyl phthalate	ND		4.0	1.2	ug/L		11/03/22 12:06	11/15/22 12:59	1
Di-n-octyl phthalate	ND		10	4.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
Dibenzofuran	ND		4.0	0.65	ug/L		11/03/22 12:06	11/15/22 12:59	1
Diethyl phthalate	ND		4.0	0.38	ug/L		11/03/22 12:06	11/15/22 12:59	1
Dimethyl phthalate	ND		4.0	0.21	ug/L		11/03/22 12:06	11/15/22 12:59	1
Fluoranthene	ND		4.0	0.90	ug/L		11/03/22 12:06	11/15/22 12:59	1
Fluorene	ND		4.0	0.31	ug/L		11/03/22 12:06	11/15/22 12:59	1
Hexachlorobenzene	ND		10	0.66	ug/L		11/03/22 12:06	11/15/22 12:59	1
Hexachlorobutadiene	ND		10	3.3	ug/L		11/03/22 12:06	11/15/22 12:59	1
Hexachloroethane	ND		10	0.98	ug/L		11/03/22 12:06	11/15/22 12:59	1
Indeno[1,2,3-cd]pyrene	ND		10	3.1	ug/L		11/03/22 12:06	11/15/22 12:59	1
Isophorone	ND		10	0.21	ug/L		11/03/22 12:06	11/15/22 12:59	1
N-Nitrosodi-n-propylamine	ND		10	0.35	ug/L		11/03/22 12:06	11/15/22 12:59	1
N-Nitrosodiphenylamine	ND		10	0.44	ug/L		11/03/22 12:06	11/15/22 12:59	1
Pentachlorophenol	ND		50	20	ug/L		11/03/22 12:06	11/15/22 12:59	1
Phenanthrene	ND		4.0	0.69	ug/L		11/03/22 12:06	11/15/22 12:59	1
Phenol	ND		10	2.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
Pyrene	ND		10	0.37	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,4-Dichlorobenzene	ND		4.0	1.3	ug/L		11/03/22 12:06	11/15/22 12:59	1
Naphthalene	ND		4.0	0.29	ug/L		11/03/22 12:06	11/15/22 12:59	1
2-Methylnaphthalene	ND		4.0	1.5	ug/L		11/03/22 12:06	11/15/22 12:59	1
Nitrobenzene	ND		10	0.81	ug/L		11/03/22 12:06	11/15/22 12:59	1
3,3'-Dichlorobenzidine	ND		50	3.1	ug/L		11/03/22 12:06	11/15/22 12:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-592215/1-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	ND		10	0.25	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,1'-Biphenyl	ND		10	1.8	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,2,4,5-Tetrachlorobenzene	ND		10	1.7	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,3-Dinitrobenzene	ND		10	2.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
1-Methylnaphthalene	ND		4.0	0.23	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,3,4,6-Tetrachlorophenol	ND		50	2.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,6-Dichlorophenol	ND		10	1.4	ug/L		11/03/22 12:06	11/15/22 12:59	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/03/22 12:06	11/15/22 12:59	1
Aniline	ND		10	2.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
Azobenzene	ND		4.0	0.23	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzaldehyde	ND		5.0	2.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
Benzidine	ND		100	50	ug/L		11/03/22 12:06	11/15/22 12:59	1
Caprolactam	ND		5.0	2.5	ug/L		11/03/22 12:06	11/15/22 12:59	1
Diphenylamine	ND		10	1.1	ug/L		11/03/22 12:06	11/15/22 12:59	1
N-Nitrosodimethylamine	ND		10	0.29	ug/L		11/03/22 12:06	11/15/22 12:59	1
Pyridine	ND		20	1.7	ug/L		11/03/22 12:06	11/15/22 12:59	1
Hexadecane	ND		10	0.54	ug/L		11/03/22 12:06	11/15/22 12:59	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	5.0	ug/L		11/03/22 12:06	11/15/22 12:59	1
3-Methylphenol	ND		10	0.40	ug/L		11/03/22 12:06	11/15/22 12:59	1
4-Methylphenol	ND		10	0.38	ug/L		11/03/22 12:06	11/15/22 12:59	1
Famphur	ND		100	1.5	ug/L		11/03/22 12:06	11/15/22 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*47 - 119*	*11/03/22 12:06*	*11/15/22 12:59*	*1*
2-Fluorophenol (Surr)	*31*		*17 - 71*	*11/03/22 12:06*	*11/15/22 12:59*	*1*
2,4,6-Tribromophenol (Surr)	*61*		*52 - 123*	*11/03/22 12:06*	*11/15/22 12:59*	*1*
Nitrobenzene-d5 (Surr)	*64*		*45 - 113*	*11/03/22 12:06*	*11/15/22 12:59*	*1*
Phenol-d5 (Surr)	*15*		*10 - 52*	*11/03/22 12:06*	*11/15/22 12:59*	*1*
Terphenyl-d14 (Surr)	*92*		*50 - 123*	*11/03/22 12:06*	*11/15/22 12:59*	*1*

Lab Sample ID: LCS 280-592215/2-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	80.0	55.8		ug/L		70	47 - 103
1,2-Dichlorobenzene	80.0	53.3		ug/L		67	44 - 103
1,3-Dichlorobenzene	80.0	52.6		ug/L		66	42 - 100
1,4-Dioxane	80.0	24.5		ug/L		31	20 - 63
2,4,5-Trichlorophenol	80.0	73.8		ug/L		92	51 - 121
2,4,6-Trichlorophenol	80.0	71.1		ug/L		89	52 - 132
2,4-Dimethylphenol	80.0	68.7		ug/L		86	54 - 105
2,4-Dinitrotoluene	80.0	76.5		ug/L		96	52 - 134
2,4-Dichlorophenol	80.0	68.4		ug/L		86	60 - 108
2-Chlorophenol	80.0	60.1		ug/L		75	50 - 105
2-Chloronaphthalene	80.0	65.0		ug/L		81	52 - 116
2-Nitrophenol	80.0	70.9		ug/L		89	58 - 110
2-Methylphenol	80.0	51.6		ug/L		65	43 - 94

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-592215/2-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	80.0	74.7		ug/L		93	42 - 142
3-Nitroaniline	80.0	57.2		ug/L		71	34 - 118
4,6-Dinitro-2-methylphenol	160	151		ug/L		95	66 - 126
4-Bromophenyl phenyl ether	80.0	74.3		ug/L		93	60 - 109
4-Chloro-3-methylphenol	80.0	71.3		ug/L		89	63 - 107
4-Chloroaniline	80.0	42.8		ug/L		54	41 - 93
4-Chlorophenyl phenyl ether	80.0	72.8		ug/L		91	57 - 120
4-Nitrophenol	160	50.3		ug/L		31	15 - 60
4-Nitroaniline	80.0	70.3		ug/L		88	55 - 123
Acenaphthene	80.0	68.6		ug/L		86	52 - 122
Benzo[k]fluoranthene	80.0	75.1		ug/L		94	69 - 119
Anthracene	80.0	74.0		ug/L		93	62 - 113
Acetophenone	80.0	65.7		ug/L		82	58 - 108
Acenaphthylene	80.0	67.1		ug/L		84	58 - 112
Benzo[a]anthracene	80.0	78.1		ug/L		98	55 - 115
Benzo[b]fluoranthene	80.0	72.2		ug/L		90	61 - 110
Benzo[g,h,i]perylene	80.0	85.2		ug/L		106	67 - 111
Benzo[a]pyrene	80.0	73.2		ug/L		91	61 - 114
Benzyl alcohol	80.0	46.8		ug/L		59	34 - 91
Bis(2-chloroethoxy)methane	80.0	67.6		ug/L		84	61 - 107
Bis(2-chloroethyl)ether	80.0	64.2		ug/L		80	56 - 112
Bis(2-ethylhexyl) phthalate	80.0	80.3		ug/L		100	60 - 116
Butyl benzyl phthalate	80.0	78.0		ug/L		97	57 - 111
Carbazole	80.0	76.0		ug/L		95	69 - 109
Chrysene	80.0	74.2		ug/L		93	63 - 118
Dibenz(a,h)anthracene	80.0	86.1		ug/L		108	65 - 111
Di-n-butyl phthalate	80.0	77.7		ug/L		97	68 - 110
Di-n-octyl phthalate	80.0	84.5		ug/L		106	49 - 111
Dibenzofuran	80.0	70.1		ug/L		88	58 - 116
Diethyl phthalate	80.0	75.6		ug/L		94	57 - 121
Dimethyl phthalate	80.0	73.7		ug/L		92	56 - 120
Fluoranthene	80.0	75.9		ug/L		95	68 - 111
Fluorene	80.0	72.0		ug/L		90	56 - 119
Hexachlorobenzene	80.0	74.4		ug/L		93	64 - 112
Hexachlorobutadiene	80.0	55.6		ug/L		69	41 - 102
Hexachloroethane	80.0	52.2		ug/L		65	31 - 100
Indeno[1,2,3-cd]pyrene	80.0	85.0	*+	ug/L		106	56 - 100
Isophorone	80.0	69.4		ug/L		87	59 - 100
N-Nitrosodi-n-propylamine	80.0	77.0		ug/L		96	59 - 106
N-Nitrosodiphenylamine	80.0	71.6		ug/L		90	64 - 112
Pentachlorophenol	160	136		ug/L		85	48 - 121
Phenanthrene	80.0	72.4		ug/L		90	63 - 113
Phenol	80.0	19.4		ug/L		24	11 - 52
Pyrene	80.0	75.9		ug/L		95	62 - 114
1,4-Dichlorobenzene	80.0	51.9		ug/L		65	43 - 101
Naphthalene	80.0	60.8		ug/L		76	53 - 105
2-Methylnaphthalene	80.0	62.4		ug/L		78	55 - 101
Nitrobenzene	80.0	64.0		ug/L		80	56 - 106
3,3'-Dichlorobenzidine	160	141		ug/L		88	56 - 112

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-592215/2-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3 & 4 Methylphenol	80.0	48.8		ug/L		61	34 - 88
1,1'-Biphenyl	80.0	66.3		ug/L		83	53 - 116
1,2,4,5-Tetrachlorobenzene	80.0	66.4		ug/L		83	52 - 100
1,3-Dinitrobenzene	80.0	74.5		ug/L		93	66 - 124
1-Methylnaphthalene	80.0	67.0		ug/L		84	57 - 100
2,3,4,6-Tetrachlorophenol	80.0	76.0		ug/L		95	53 - 129
2,6-Dichlorophenol	80.0	66.9		ug/L		84	56 - 104
2,6-Dinitrotoluene	80.0	73.7		ug/L		92	52 - 132
Aniline	80.0	33.2		ug/L		42	16 - 94
Azobenzene	80.0	67.7		ug/L		85	59 - 124
Benzaldehyde	80.0	58.0		ug/L		73	25 - 91
Benzidine	160	ND		ug/L		11	5 - 93
Caprolactam	80.0	19.6		ug/L		25	10 - 50
Diphenylamine	68.0	62.3		ug/L		92	62 - 118
N-Nitrosodimethylamine	80.0	30.9		ug/L		39	13 - 70
Pyridine	160	43.8		ug/L		27	10 - 69
Hexadecane	80.0	70.1		ug/L		88	23 - 134
1,2-Diphenylhydrazine(as Azobenzene)	80.9	75.5		ug/L		93	59 - 124
4-Methylphenol	80.0	48.8		ug/L		61	34 - 88

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*47 - 119*
2-Fluorophenol (Surr)	*36*		*17 - 71*
2,4,6-Tribromophenol (Surr)	*92*		*52 - 123*
Nitrobenzene-d5 (Surr)	*77*		*45 - 113*
Phenol-d5 (Surr)	*22*		*10 - 52*
Terphenyl-d14 (Surr)	*86*		*50 - 123*

Lab Sample ID: LCSD 280-592215/3-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 592215

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	80.0	51.8		ug/L		65	47 - 103	7	30
1,2-Dichlorobenzene	80.0	47.7		ug/L		60	44 - 103	11	30
1,3-Dichlorobenzene	80.0	45.7		ug/L		57	42 - 100	14	30
1,4-Dioxane	80.0	20.6		ug/L		26	20 - 63	17	30
2,4,5-Trichlorophenol	80.0	76.1		ug/L		95	51 - 121	3	30
2,4,6-Trichlorophenol	80.0	71.2		ug/L		89	52 - 132	0	30
2,4-Dimethylphenol	80.0	63.7		ug/L		80	54 - 105	8	30
2,4-Dinitrotoluene	80.0	79.0		ug/L		99	52 - 134	3	30
2,4-Dichlorophenol	80.0	66.6		ug/L		83	60 - 108	3	30
2-Chlorophenol	80.0	55.7		ug/L		70	50 - 105	7	30
2-Chloronaphthalene	80.0	64.1		ug/L		80	52 - 116	1	30
2-Nitrophenol	80.0	69.1		ug/L		86	58 - 110	2	30
2-Methylphenol	80.0	50.1		ug/L		63	43 - 94	3	30
2-Nitroaniline	80.0	76.8		ug/L		96	42 - 142	3	30
3-Nitroaniline	80.0	59.9		ug/L		75	34 - 118	5	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-592215/3-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 592215

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,6-Dinitro-2-methylphenol	160	154		ug/L		96	66 - 126	2	30
4-Bromophenyl phenyl ether	80.0	75.2		ug/L		94	60 - 109	1	30
4-Chloro-3-methylphenol	80.0	72.3		ug/L		90	63 - 107	1	30
4-Chloroaniline	80.0	40.3		ug/L		50	41 - 93	6	30
4-Chlorophenyl phenyl ether	80.0	75.1		ug/L		94	57 - 120	3	30
4-Nitrophenol	160	50.1		ug/L		31	15 - 60	0	30
4-Nitroaniline	80.0	71.1		ug/L		89	55 - 123	1	30
Acenaphthene	80.0	68.3		ug/L		85	52 - 122	0	30
Benzo[k]fluoranthene	80.0	71.8		ug/L		90	69 - 119	4	30
Anthracene	80.0	73.5		ug/L		92	62 - 113	1	30
Acetophenone	80.0	61.9		ug/L		77	58 - 108	6	30
Acenaphthylene	80.0	65.2		ug/L		82	58 - 112	3	30
Benzo[a]anthracene	80.0	75.6		ug/L		95	55 - 115	3	30
Benzo[b]fluoranthene	80.0	76.1		ug/L		95	61 - 110	5	30
Benzo[g,h,i]perylene	80.0	86.0		ug/L		108	67 - 111	1	30
Benzo[a]pyrene	80.0	72.6		ug/L		91	61 - 114	1	30
Benzyl alcohol	80.0	45.7		ug/L		57	34 - 91	2	30
Bis(2-chloroethoxy)methane	80.0	63.4		ug/L		79	61 - 107	6	30
Bis(2-chloroethyl)ether	80.0	58.3		ug/L		73	56 - 112	10	30
Bis(2-ethylhexyl) phthalate	80.0	80.4		ug/L		100	60 - 116	0	30
Butyl benzyl phthalate	80.0	76.8		ug/L		96	57 - 111	2	30
Carbazole	80.0	76.1		ug/L		95	69 - 109	0	30
Chrysene	80.0	72.3		ug/L		90	63 - 118	3	30
Dibenz(a,h)anthracene	80.0	85.4		ug/L		107	65 - 111	1	30
Di-n-butyl phthalate	80.0	77.4		ug/L		97	68 - 110	0	30
Di-n-octyl phthalate	80.0	83.1		ug/L		104	49 - 111	2	30
Dibenzofuran	80.0	70.5		ug/L		88	58 - 116	0	30
Diethyl phthalate	80.0	76.7		ug/L		96	57 - 121	2	30
Dimethyl phthalate	80.0	75.3		ug/L		94	56 - 120	2	30
Fluoranthene	80.0	76.1		ug/L		95	68 - 111	0	30
Fluorene	80.0	74.2		ug/L		93	56 - 119	3	30
Hexachlorobenzene	80.0	74.2		ug/L		93	64 - 112	0	30
Hexachlorobutadiene	80.0	49.7		ug/L		62	41 - 102	11	30
Hexachloroethane	80.0	45.9		ug/L		57	31 - 100	13	30
Indeno[1,2,3-cd]pyrene	80.0	83.6	*+	ug/L		105	56 - 100	2	30
Isophorone	80.0	67.8		ug/L		85	59 - 100	2	30
N-Nitrosodi-n-propylamine	80.0	71.2		ug/L		89	59 - 106	8	30
N-Nitrosodiphenylamine	80.0	71.2		ug/L		89	64 - 112	1	30
Pentachlorophenol	160	138		ug/L		86	48 - 121	1	30
Phenanthrene	80.0	73.1		ug/L		91	63 - 113	1	30
Phenol	80.0	19.0		ug/L		24	11 - 52	2	30
Pyrene	80.0	74.7		ug/L		93	62 - 114	2	30
1,4-Dichlorobenzene	80.0	46.6		ug/L		58	43 - 101	11	30
Naphthalene	80.0	56.2		ug/L		70	53 - 105	8	30
2-Methylnaphthalene	80.0	58.8		ug/L		73	55 - 101	6	30
Nitrobenzene	80.0	61.0		ug/L		76	56 - 106	5	30
3,3'-Dichlorobenzidine	160	123		ug/L		77	56 - 112	14	30
3 & 4 Methylphenol	80.0	47.1		ug/L		59	34 - 88	4	30
1,1'-Biphenyl	80.0	65.3		ug/L		82	53 - 116	2	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-592215/3-A
Matrix: Water
Analysis Batch: 593486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 592215

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4,5-Tetrachlorobenzene	80.0	62.5		ug/L		78	52 - 100	6	30
1,3-Dinitrobenzene	80.0	76.5		ug/L		96	66 - 124	3	30
1-Methylnaphthalene	80.0	64.8		ug/L		81	57 - 100	3	30
2,3,4,6-Tetrachlorophenol	80.0	77.9		ug/L		97	53 - 129	3	30
2,6-Dichlorophenol	80.0	64.6		ug/L		81	56 - 104	4	50
2,6-Dinitrotoluene	80.0	74.9		ug/L		94	52 - 132	2	30
Aniline	80.0	18.7	*1	ug/L		23	16 - 94	56	30
Azobenzene	80.0	67.9		ug/L		85	59 - 124	0	30
Benzaldehyde	80.0	40.3		ug/L		50	25 - 91	36	50
Benzidine	160	ND	*1	ug/L		5	5 - 93	83	50
Caprolactam	80.0	18.2		ug/L		23	10 - 50	7	30
Diphenylamine	68.0	63.4		ug/L		93	62 - 118	2	50
N-Nitrosodimethylamine	80.0	28.0		ug/L		35	13 - 70	10	34
Pyridine	160	30.6		ug/L		19	10 - 69	36	41
Hexadecane	80.0	70.0		ug/L		87	23 - 134	0	30
1,2-Diphenylhydrazine(as Azobenzene)	80.9	75.7		ug/L		94	59 - 124	0	30
4-Methylphenol	80.0	47.1		ug/L		59	34 - 88	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*47 - 119*
2-Fluorophenol (Surr)	*33*		*17 - 71*
2,4,6-Tribromophenol (Surr)	*93*		*52 - 123*
Nitrobenzene-d5 (Surr)	*71*		*45 - 113*
Phenol-d5 (Surr)	*22*		*10 - 52*
Terphenyl-d14 (Surr)	*85*		*50 - 123*

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

Lab Sample ID: MB 280-591800/1-A
Matrix: Water
Analysis Batch: 592551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 591800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		1.0	0.18	ug/L		10/31/22 12:35	11/04/22 22:31	1
PCB-1016	ND		1.0	0.17	ug/L		10/31/22 12:35	11/04/22 22:31	1
PCB-1232	ND		1.0	0.13	ug/L		10/31/22 12:35	11/04/22 22:31	1
PCB-1242	ND		1.0	0.10	ug/L		10/31/22 12:35	11/04/22 22:31	1
PCB-1248	ND		1.0	0.17	ug/L		10/31/22 12:35	11/04/22 22:31	1
PCB-1254	ND		1.0	0.14	ug/L		10/31/22 12:35	11/04/22 22:31	1
PCB-1260	ND		1.0	0.089	ug/L		10/31/22 12:35	11/04/22 22:31	1
Polychlorinated biphenyls, Total	ND		1.0	0.073	ug/L		10/31/22 12:35	11/04/22 22:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*56*		*29 - 115*	*10/31/22 12:35*	*11/04/22 22:31*	*1*
DCB Decachlorobiphenyl	*85*		*26 - 135*	*10/31/22 12:35*	*11/04/22 22:31*	*1*

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

Lab Sample ID: LCS 280-591800/4-A
Matrix: Water
Analysis Batch: 592551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 591800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	2.00	1.51		ug/L		76	58 - 125
PCB-1260	2.00	1.85		ug/L		92	72 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*49*		*29 - 115*
DCB Decachlorobiphenyl	*87*		*26 - 135*

Lab Sample ID: LCSD 280-591800/5-A
Matrix: Water
Analysis Batch: 592551

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 591800

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	2.00	1.64		ug/L		82	58 - 125	8	25
PCB-1260	2.00	1.92		ug/L		96	72 - 128	4	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*52*		*29 - 115*
DCB Decachlorobiphenyl	*85*		*26 - 135*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-592350/1-A
Matrix: Water
Analysis Batch: 592732

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		11/04/22 15:07	11/08/22 04:01	1
Barium	ND		10	0.82	ug/L		11/04/22 15:07	11/08/22 04:01	1
Cadmium	ND		5.0	0.13	ug/L		11/04/22 15:07	11/08/22 04:01	1
Chromium	ND		10	0.66	ug/L		11/04/22 15:07	11/08/22 04:01	1
Lead	ND		9.0	2.7	ug/L		11/04/22 15:07	11/08/22 04:01	1
Selenium	ND		20	6.3	ug/L		11/04/22 15:07	11/08/22 04:01	1
Silver	ND		10	2.0	ug/L		11/04/22 15:07	11/08/22 04:01	1

Lab Sample ID: LCS 280-592350/2-A
Matrix: Water
Analysis Batch: 592732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1000	997		ug/L		100	88 - 110
Barium	1000	1050		ug/L		105	90 - 112
Cadmium	1000	998		ug/L		100	88 - 111
Chromium	1000	996		ug/L		100	90 - 113
Lead	1000	1030		ug/L		103	89 - 110
Selenium	1000	1010		ug/L		101	85 - 112
Silver	50.0	53.4		ug/L		107	86 - 115

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

Lab Sample ID: LCSD 280-592350/3-A
Matrix: Water
Analysis Batch: 592732

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 592350

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1000	989		ug/L		99	88 - 110	1	20
Barium	1000	1050		ug/L		105	90 - 112	0	20
Cadmium	1000	1000		ug/L		100	88 - 111	0	20
Chromium	1000	994		ug/L		99	90 - 113	0	20
Lead	1000	1020		ug/L		102	89 - 110	0	20
Selenium	1000	999		ug/L		100	85 - 112	1	20
Silver	50.0	53.2		ug/L		106	86 - 115	0	20

Lab Sample ID: 280-168602-A-3-E MS
Matrix: Water
Analysis Batch: 592732

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 592350

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		1000	1020		ug/L		102	84 - 124
Barium	59		1000	1100		ug/L		105	85 - 120
Cadmium	ND		1000	989		ug/L		99	82 - 119
Chromium	15		1000	1000		ug/L		99	73 - 135
Lead	ND		1000	1010		ug/L		101	89 - 121
Selenium	ND		1000	1020		ug/L		102	71 - 140
Silver	ND		50.0	54.5		ug/L		109	75 - 141

Lab Sample ID: 280-168602-A-3-F MSD
Matrix: Water
Analysis Batch: 592732

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 592350

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		1000	999		ug/L		100	84 - 124	2	20
Barium	59		1000	1090		ug/L		103	85 - 120	1	20
Cadmium	ND		1000	981		ug/L		98	82 - 119	1	20
Chromium	15		1000	994		ug/L		98	73 - 135	1	20
Lead	ND		1000	1000		ug/L		100	89 - 121	1	20
Selenium	ND		1000	1010		ug/L		101	71 - 140	1	20
Silver	ND		50.0	53.9		ug/L		108	75 - 141	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-593389/1-A
Matrix: Water
Analysis Batch: 593640

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 593389

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.164	J	0.20	0.061	ug/L		11/14/22 18:07	11/15/22 13:30	1

Lab Sample ID: LCS 280-593389/2-A
Matrix: Water
Analysis Batch: 593640

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 593389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.15		ug/L		103	84 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 280-168606-A-12-D MS
Matrix: Water
Analysis Batch: 593640

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 593389

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.19	J B	5.00	4.69		ug/L		90	75 - 125

Lab Sample ID: 280-168606-A-12-E MSD
Matrix: Water
Analysis Batch: 593640

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 593389

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.19	J B	5.00	4.71		ug/L		90	75 - 125	0	20

Method: 1010B - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: MB 280-593219/15
Matrix: Water
Analysis Batch: 593219

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>160		1.0	1.0	Degrees F			11/11/22 16:48	1

Lab Sample ID: MB 280-593219/2
Matrix: Water
Analysis Batch: 593219

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>160		1.0	1.0	Degrees F			11/11/22 16:47	1

Lab Sample ID: LCS 280-593219/1
Matrix: Water
Analysis Batch: 593219

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Flashpoint	90.0	97.0		Degrees F		108	98 - 114

Lab Sample ID: LCSD 280-593219/14
Matrix: Water
Analysis Batch: 593219

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Flashpoint	90.0	95.0		Degrees F		106	98 - 114	2	10

Lab Sample ID: 280-168430-A-1 DU
Matrix: Water
Analysis Batch: 593219

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	130		140		Degrees F		10	10

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 280-592748/133
Matrix: Water
Analysis Batch: 592748

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L			11/07/22 15:01	1

Lab Sample ID: HLCS 280-592748/130
Matrix: Water
Analysis Batch: 592748

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

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.350	0.383		mg/L		109	90 - 110

Lab Sample ID: LCS 280-592748/132
Matrix: Water
Analysis Batch: 592748

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.0954		mg/L		95	90 - 110

Lab Sample ID: LLCS 280-592748/131
Matrix: Water
Analysis Batch: 592748

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.110		mg/L		110	90 - 110

Lab Sample ID: 500-224367-I-18 MS
Matrix: Water
Analysis Batch: 592748

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND		0.100	0.0936		mg/L		94	90 - 110

Lab Sample ID: 500-224367-I-18 MSD
Matrix: Water
Analysis Batch: 592748

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.0936		mg/L		94	90 - 110	0	20

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 280-591851/3-A
Matrix: Water
Analysis Batch: 591852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 591851

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		4.0	1.6	mg/L		10/31/22 16:20	10/31/22 16:29	1

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: LCS 280-591851/1-A
Matrix: Water
Analysis Batch: 591852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 591851

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	19.4	14.4		mg/L		74	44 - 110

Lab Sample ID: LCSD 280-591851/2-A
Matrix: Water
Analysis Batch: 591852

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 591851

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	19.4	14.4		mg/L		74	44 - 110	0	20

Lab Sample ID: 280-168158-H-1-B MS
Matrix: Water
Analysis Batch: 591852

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 591851

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	ND		19.4	14.4		mg/L		74	44 - 110

Lab Sample ID: 280-168158-H-1-C MSD
Matrix: Water
Analysis Batch: 591852

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 591851

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	ND		19.4	15.2		mg/L		78	44 - 110	5	20

Method: 9040C - pH

Lab Sample ID: LCS 280-592061/27
Matrix: Water
Analysis Batch: 592061

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH adj. to 25 deg C	7.00	7.1		SU		101	99 - 101

Lab Sample ID: 280-168243-G-3 DU
Matrix: Water
Analysis Batch: 592061

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH adj. to 25 deg C	7.1		7.1		SU		0.3	5
Temperature	19.4		19.5		Degrees C		0.4	10

Lab Sample ID: LCS 280-592368/4
Matrix: Water
Analysis Batch: 592368

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH adj. to 25 deg C	7.00	7.1		SU		101	99 - 101

Method: 9040C - pH (Continued)

Lab Sample ID: 280-168247-E-1 DU
Matrix: Water
Analysis Batch: 592368

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	7.1			7.2		SU				1	5
Temperature	20.8			20.6		Degrees C				1	10

GC/MS VOA

Analysis Batch: 593004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	8260D	
280-168399-2	Leachate Manhole	Total/NA	Water	8260D	
280-168399-3	Trip Blank	Total/NA	Water	8260D	
MB 280-593004/7	Method Blank	Total/NA	Water	8260D	
LCS 280-593004/1002	Lab Control Sample	Total/NA	Water	8260D	
LCS 280-593004/1003	Lab Control Sample	Total/NA	Water	8260D	
LCSD 280-593004/4	Lab Control Sample Dup	Total/NA	Water	8260D	
LCSD 280-593004/5	Lab Control Sample Dup	Total/NA	Water	8260D	
280-168404-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	
280-168404-F-3 MS	Matrix Spike	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 592215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	3510C	
280-168399-2	Leachate Manhole	Total/NA	Water	3510C	
MB 280-592215/1-A	Method Blank	Total/NA	Water	3510C	
LCS 280-592215/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-592215/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 593486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	8270D	592215
280-168399-2	Leachate Manhole	Total/NA	Water	8270D	592215
MB 280-592215/1-A	Method Blank	Total/NA	Water	8270D	592215
LCS 280-592215/2-A	Lab Control Sample	Total/NA	Water	8270D	592215
LCSD 280-592215/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	592215

GC Semi VOA

Prep Batch: 591800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	3510C	
280-168399-2	Leachate Manhole	Total/NA	Water	3510C	
MB 280-591800/1-A	Method Blank	Total/NA	Water	3510C	
LCS 280-591800/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-591800/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 592551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	8082A	591800
280-168399-2	Leachate Manhole	Total/NA	Water	8082A	591800
MB 280-591800/1-A	Method Blank	Total/NA	Water	8082A	591800
LCS 280-591800/4-A	Lab Control Sample	Total/NA	Water	8082A	591800
LCSD 280-591800/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	591800

Metals

Prep Batch: 592350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	3010A	

Metals (Continued)

Prep Batch: 592350 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-2	Leachate Manhole	Total/NA	Water	3010A	
MB 280-592350/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-592350/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-592350/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-168602-A-3-E MS	Matrix Spike	Total/NA	Water	3010A	
280-168602-A-3-F MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Analysis Batch: 592732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	6010C	592350
280-168399-2	Leachate Manhole	Total/NA	Water	6010C	592350
MB 280-592350/1-A	Method Blank	Total/NA	Water	6010C	592350
LCS 280-592350/2-A	Lab Control Sample	Total/NA	Water	6010C	592350
LCSD 280-592350/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	592350
280-168602-A-3-E MS	Matrix Spike	Total/NA	Water	6010C	592350
280-168602-A-3-F MSD	Matrix Spike Duplicate	Total/NA	Water	6010C	592350

Prep Batch: 593389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	7470A	
280-168399-2	Leachate Manhole	Total/NA	Water	7470A	
MB 280-593389/1-A	Method Blank	Total/NA	Water	7470A	
LCS 280-593389/2-A	Lab Control Sample	Total/NA	Water	7470A	
280-168606-A-12-D MS	Matrix Spike	Total/NA	Water	7470A	
280-168606-A-12-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 593640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	7470A	593389
280-168399-2	Leachate Manhole	Total/NA	Water	7470A	593389
MB 280-593389/1-A	Method Blank	Total/NA	Water	7470A	593389
LCS 280-593389/2-A	Lab Control Sample	Total/NA	Water	7470A	593389
280-168606-A-12-D MS	Matrix Spike	Total/NA	Water	7470A	593389
280-168606-A-12-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	593389

General Chemistry

Prep Batch: 591851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	9030B	
280-168399-2	Leachate Manhole	Total/NA	Water	9030B	
MB 280-591851/3-A	Method Blank	Total/NA	Water	9030B	
LCS 280-591851/1-A	Lab Control Sample	Total/NA	Water	9030B	
LCSD 280-591851/2-A	Lab Control Sample Dup	Total/NA	Water	9030B	
280-168158-H-1-B MS	Matrix Spike	Total/NA	Water	9030B	
280-168158-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9030B	

Analysis Batch: 591852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	9034	591851
280-168399-2	Leachate Manhole	Total/NA	Water	9034	591851

General Chemistry (Continued)

Analysis Batch: 591852 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-591851/3-A	Method Blank	Total/NA	Water	9034	591851
LCS 280-591851/1-A	Lab Control Sample	Total/NA	Water	9034	591851
LCSD 280-591851/2-A	Lab Control Sample Dup	Total/NA	Water	9034	591851
280-168158-H-1-B MS	Matrix Spike	Total/NA	Water	9034	591851
280-168158-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9034	591851

Analysis Batch: 592061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-2	Leachate Manhole	Total/NA	Water	9040C	
LCS 280-592061/27	Lab Control Sample	Total/NA	Water	9040C	
280-168243-G-3 DU	Duplicate	Total/NA	Water	9040C	

Analysis Batch: 592368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	9040C	
LCS 280-592368/4	Lab Control Sample	Total/NA	Water	9040C	
280-168247-E-1 DU	Duplicate	Total/NA	Water	9040C	

Analysis Batch: 592748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	9012B	
280-168399-2	Leachate Manhole	Total/NA	Water	9012B	
MB 280-592748/133	Method Blank	Total/NA	Water	9012B	
HLCS 280-592748/130	Lab Control Sample	Total/NA	Water	9012B	
LCS 280-592748/132	Lab Control Sample	Total/NA	Water	9012B	
LLCS 280-592748/131	Lab Control Sample	Total/NA	Water	9012B	
500-224367-I-18 MS	Matrix Spike	Total/NA	Water	9012B	
500-224367-I-18 MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	

Analysis Batch: 593219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168399-1	Condensate Tank/Sump	Total/NA	Water	1010B	
280-168399-2	Leachate Manhole	Total/NA	Water	1010B	
MB 280-593219/15	Method Blank	Total/NA	Water	1010B	
MB 280-593219/2	Method Blank	Total/NA	Water	1010B	
LCS 280-593219/1	Lab Control Sample	Total/NA	Water	1010B	
LCSD 280-593219/14	Lab Control Sample Dup	Total/NA	Water	1010B	
280-168430-A-1 DU	Duplicate	Total/NA	Water	1010B	

Client Sample ID: Condensate Tank/Sump

Lab Sample ID: 280-168399-1

Date Collected: 10/27/22 09:10

Matrix: Water

Date Received: 10/29/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	593004	11/10/22 15:48	MD	EET DEN
Total/NA	Prep	3510C			1045.9 mL	1 mL	592215	11/03/22 12:06	KJZ	EET DEN
Total/NA	Analysis	8270D		1	1 mL	1 mL	593486	11/15/22 15:50	JAH	EET DEN
Total/NA	Prep	3510C			270.3 mL	5 mL	591800	10/31/22 12:35	ANV	EET DEN
Total/NA	Analysis	8082A		1	1 mL	1 mL	592551	11/04/22 23:38	SP	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	592350	11/04/22 15:07	MCR	EET DEN
Total/NA	Analysis	6010C		1			592732	11/08/22 05:42	KRP	EET DEN
Total/NA	Prep	7470A			30 mL	50 mL	593389	11/14/22 18:07	KMS	EET DEN
Total/NA	Analysis	7470A		1			593640	11/15/22 14:38	KMS	EET DEN
Total/NA	Analysis	1010B		1			593219	11/11/22 16:48	ASP	EET DEN
Total/NA	Analysis	9012B		1	10 mL	10 mL	592748	11/07/22 15:12	MMP	EET DEN
Total/NA	Prep	9030B			50 mL	50 mL	591851	10/31/22 16:20	CAI	EET DEN
Total/NA	Analysis	9034		1			591852	10/31/22 16:29	CAI	EET DEN
Total/NA	Analysis	9040C		1			592368	11/03/22 14:19	KEG	EET DEN

Client Sample ID: Leachate Manhole

Lab Sample ID: 280-168399-2

Date Collected: 10/27/22 08:45

Matrix: Water

Date Received: 10/29/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	593004	11/10/22 16:09	MD	EET DEN
Total/NA	Prep	3510C			1047.7 mL	1 mL	592215	11/03/22 12:06	KJZ	EET DEN
Total/NA	Analysis	8270D		1	1 mL	1 mL	593486	11/15/22 16:12	JAH	EET DEN
Total/NA	Prep	3510C			270.5 mL	5 mL	591800	10/31/22 12:35	ANV	EET DEN
Total/NA	Analysis	8082A		1	1 mL	1 mL	592551	11/04/22 23:55	SP	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	592350	11/04/22 15:07	MCR	EET DEN
Total/NA	Analysis	6010C		1			592732	11/08/22 05:47	KRP	EET DEN
Total/NA	Prep	7470A			30 mL	50 mL	593389	11/14/22 18:07	KMS	EET DEN
Total/NA	Analysis	7470A		1			593640	11/15/22 14:41	KMS	EET DEN
Total/NA	Analysis	1010B		1			593219	11/11/22 16:48	ASP	EET DEN
Total/NA	Analysis	9012B		1	10 mL	10 mL	592748	11/07/22 15:15	MMP	EET DEN
Total/NA	Prep	9030B			50 mL	50 mL	591851	10/31/22 16:20	CAI	EET DEN
Total/NA	Analysis	9034		1			591852	10/31/22 16:29	CAI	EET DEN
Total/NA	Analysis	9040C		1			592061	11/01/22 13:51	KEG	EET DEN

Client Sample ID: Trip Blank

Lab Sample ID: 280-168399-3

Date Collected: 10/27/22 08:45

Matrix: Water

Date Received: 10/29/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	593004	11/10/22 13:03	MD	EET DEN

Laboratory References:

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

Accreditation/Certification Summary

Client: Tetra Tech BAS
Project/Site: Halehaka Landfill, Hawaii

Job ID: 280-168399-1

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	05-31-23
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22 *
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	11-30-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Louisiana (All)	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-23
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-23
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	09-30-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-23
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-23

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

Eurofins TestAmerica, Denver
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Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: S. Pankeiver / B. Harrington	Lab PM: Nicole Ryan	Carrier Tracking No(s):	COC No:
Client Contact: LeAnn Mallette	Phone: 808 727 0010	E-Mail: Nicole.Ryan@ET.EurofinsUS.com		Page: Page 1 of 1 (COPY)
Company: Tetra Tech BAS				Job #
Address: 21700 Copley Dr STE 200	Due Date Requested: Standard			
City: Diamond Bar	TAT Requested (days): Standard ASAP			
State, Zip: CA 91765				
Phone: 949 310 1581	PO #: 197-210068 Task 3C			
Email: leann.mallette@tetratech.co	WO #			
Project Name: Halehaka Landfill	Project #: 28023713			
Site: County of Kauai	SSOW#			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7470A - Total Metals	8260D - VOCs	8270D - SVOCs	8082A - PCBs	9040C, 1010B - pH, Flashpoint	4500_CN_I - Cyanide	9034 - Sulfide	Total Number of containers	Special Instructions/Note:
Condensate Tank / Sump	10/27/22	9:10	G	W				X	X	X	X	X	X	X		
Leachate Manhole	10/27/22	8:45	G	W				X	X	X	X	X	X	X		

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

280-168399 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☒ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Glenn Harrington	10/27/22 / 10:00	Tetra Tech		10/29/22 0930	ETADGN
2	Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
3	Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.: 1878943 / 1878942
(condensate) (leachate

Cooler Temperature(s) °C and Other Remarks: 2.0, 1.9 CF 0.0 IR#2

Ver: 01/16/2019

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11/18/2022

Login Sample Receipt Checklist

Client: Tetra Tech BAS

Job Number: 280-168399-1

Login Number: 168399
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
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.	True	

Eurofins Denver

Job Notes

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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 TestAmerica Project Manager.

Authorization

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