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MONTHLY REPORT OF THE OPERATIONS & MAINTENANCE ACTIVITIES (AUGUST 2023)

**CLAREMONT POLYCHEMICAL
OPERABLE UNIT 5 GROUND
WATER TREATMENT
SYSTEM, OLD BETHPAGE, NY**

**MONTHLY REPORT OF THE OPERATIONS & MAINTENANCE
ACTIVITIES (AUGUST 2023)
CLAREMONT POLYCHEMICAL OPERABLE UNIT 5 GROUND
WATER TREATMENT SYSTEM, OLD BETHPAGE, NY**

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Prepared by **Pawel Mecinski – GES**
Checked by **Michael Grifasi - Ramboll**
Approved by **Andrew Leitzinger - Ramboll**

Ramboll
333 West Washington Street
Syracuse, NY 13202
USA

T 315-956-6100
F 315-463-7554
<https://ramboll.com>

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LIST OF ACRONYMS AND ABBREVIATIONS

AS	Air Stripper
A/V	Air and Vacuum
ASF	Air Stripper feed
BNA	Base Neutral & Acid Extractables
CPC	Claremont Polychemical
CSE	Confined Space Entry
DOSR	Daily Operations Summary Report
EE	Electrical Engineer
GES	Groundwater & Environmental Services, Inc.
GPM	Gallons Per Minute
GWTS	Groundwater extraction, treatment, and reinjection system
HDR	Henningson, Durham & Richardson Architecture and Engineering, P.C.
HMI	Human Machine Interface
HVAC	Heating, Ventilation, and Air Conditioning
MTBA	Tert-Butyl-Methyl ether
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
OU4	Operable Unit 4
OU5	Operable Unit 5
PD	Plant Discharge
PDB	Passive Diffusion Bag
PFAS	Per- and polyfluoroalkyl substances
PFOS	Perfluorooctanesulfonic acid
PFOA	Perfluorooctanoic acid
PID	Photoionization Detector
PFF	Pressure Filter Feed
PLC	Programmable Logic Controller
ppm	parts per million
PW	Process Water
Ramboll	Ramboll Americas Engineering Solutions, Inc.
RW	Recovery Well, Process Well
SPEDES	State Pollutant Discharge Elimination System
SSHP	Site Safety and Health Plan
SU	Standard pH Units
SVOCs	Semi-Volatile Organic Compounds
TBA	Tert-butyl alcohol
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TOC	Total Organic Carbon
TOGS	Technical and Operational Guidance Series
TSS	Total Suspended Solids
US Water	US Water Services Corporation
VOCs	Volatile Organic Compounds,

1. OPERATION AND MAINTENANCE ACTIVITIES

On behalf of Ramboll Americas Engineering Solutions, Inc. (Ramboll), Groundwater & Environmental Services, Inc. (GES) continued the daily operation and maintenance (O&M) of the Claremont Polychemical (CPC) Superfund Site Groundwater Treatment System (GWTS) Operable Unit 5 (OU5) during the month of August 2023. In addition, former Operable Unit (OU4) was inspected once per month to ensure security and building code compliance. For this report every time plant is mentioned it refers to OU5. OU4 will be referred to as such whenever discussed. This report covers the O&M activities for the system during the period defined as beginning at approximately 0800 hours, July 28, 2023, through approximately 0800 hours, September 1, 2023. O&M conducted during this reporting period was guided by the site O&M Manual.

The GWTS – treatment plant, grounds, and well systems - were maintained for the 35 days in this reporting period during which the treatment system experienced 0 minutes of downtime.

Readings of the key plant process parameters are normally recorded each workday. These readings and the Human Machine Interface (HMI) flow trend lines are used to monitor the system's performance and condition. Selected readings are recorded in the daily database which is an electronic file maintained in the monthly operating documents folder. If the plant is not occupied, the system is monitored remotely.

The treatment process control and alarm systems are functional. The recovery well pumps, process pumps, and air stripper blower are operated in the automatic mode and are normally remotely controlled and monitored. RW-3 and RW-5 recovery wells were operational during the month of August. RW-4 experienced random electrical shut downs and excessive vibration between August 11 through 14, 2023 and was taken offline for further troubleshooting.

1.1 Daily Operations Summary Reports

The GWTS's daily operations and maintenance activities, project tasks, and observations during this period are briefly described in the Daily Operations Summary Report (DOSR). The DOSR is based in part on the treatment system's daily operating worksheets and logs which include:

- Daily Operating Log – flow readings and calculations (Form-01)
- Daily Site and Safety Inspection – plant condition checklist (Form-02)
- Daily Plant Activity Notes – plant manager's daily summary (Form-03)
- Sign-In Sheet – GES/Ramboll employee on-site hours (Form-15)
- Daily Process Data Sheet – point process readings (Form-30)
- Logbook CPC 5-8– plant operator's daily logbook
- Daily Database – daily process readings (August 23 Database.xlsx)
- NYSDC Log-in Sheet – Entry/Exit Log with COVID-19 Acknowledgement

1.2 Summary of Maintenance Activities

The operation and maintenance of the treatment system, facility, and associated equipment is performed in accordance with the site O&M Manual. These tasks and inspections incorporate the equipment manufacturers' recommendations, operations experience, and good engineering and

maintenance practices. A detailed accounting of the August activities is further provided in the plant operator's daily logbook.

Maintenance and project activities undertaken during the August period included:

- Routine and general maintenance tasks were conducted at the plant, on the grounds, and in the well fields.
- Single Air Stripper Feed (ASF) pumps were placed into hand mode and frequently switched to cycle their activity.
- The monthly process equipment tests were conducted.
- The Operable Unit 4 (OU4) comprehensive inspections were completed.
- The monthly Process/Recovery Well (RW) system inspection was completed.
- Recovery wells RW-4 and RW-5 were restarted following pump replacement.
- Basin 33 was inspected.
- The ASF pumps were lubricated, and the seals tightened.
- The OU5 comprehensive inspections were completed.
- The Pressure Filter Feed (PFF) pumps were lubricated, and the seals tightened.
- The fire alarm system components were inspected.
- The monthly electrical device survey was completed.
- The SUNY wellfield was inspected.

1.3 Maintenance Logs

The following operating logbooks are currently in use and maintained at OU5:

- CL-18 OU-4 Log (at OU4)
- CL-43 General Field Support Log (truck)
- CL-47 Misc. Projects Field Notebook (Pawel Mecinski)
- CPC 5-4 Project Support Logbook (site)
- CPC 5-8 Site Supervisor's Daily Logbook (Pawel Mecinski).

Except for log CPC 5-7, the completed logbooks associated with the project have been scanned, all are in storage at OU5, and are available for review.

2. TECHNICAL SUPPORT ACTIVITIES

2.1 GES/Ramboll Personnel

- GES maintained the system throughout the period.

2.2 NYSDEC Personnel, Sub - contractors, and Other Visitors

- On August 11, 2023 – Island Fire and Defense Systems completed annual fire alarm inspection and testing.
- On August 14, 2023 – McCloskey serviced and replaced filters at the plant's HVAC unit.
- On August 17, 2023 – NYSDEC and New York State Office of Fire Protection and Control personnel conducted a site visit and fire inspection at OU-4 and OU-5 locations.
- On September 1, 2023 – LEB Electric conducted site visit and inspection of RW-4 vault.

2.3 Deliveries

- On August 1 & 10, 2023 - FedEx delivered sampling cooler upcoming quarterly groundwater sampling event and monthly system sampling event.
- On August 15, 2023 - UPS delivered sampling supplies for the quarterly groundwater sampling event.

3. HEALTH AND SAFETY

Work at the Claremont GWTS OU5 was conducted in accordance with the approved and Ramboll adopted Site Safety and Health Plan (SSHP). Safety related activities during this period included:

- The water remained off at OU4. Both potable and non-potable lines were drained. (No sanitary water).
- Daily site safety inspections were completed as part of the routine O&M activities.

4. PLANNED ACTIVITIES AND SCHEDULES

The evaluation of the plant operating system and equipment is ongoing by GES/Ramboll. A list in the form of corrective actions or maintenance tasks has been generated as a monthly system status report. These reports are updated as needed and reviewed at least monthly. Both are electronically filed. The corrective action list is included at the end of this report as **Table 1** – Claremont Corrective Action Summary.

Upcoming tasks include:

- OU4 remains without water to the fire sprinkler system due to no heat in the building.
- OU4 potable water line was shut off due to pipe ruptures from frozen pipes.
- Air valve at MW-6 cluster in Bethpage State Park reinsertion.
- Investigate plant electric driven back-up heater failures.
- Close and exercise all globe valves at the non-operational recovery wells.

5. MONITORING WELL WATER ELEVATIONS

The monitoring well system's groundwater elevation data table was updated after the August 2023 quarterly GW elevation recording task. This database is available for review. The next set of synoptic water level measurements will be scheduled for October 2023 and will be conducted by Ramboll.

6. TREATMENT SYSTEM FLOWS

During the August period, the plant continued to operate in the auto control mode. The volume of treated water discharged by the treatment system to the selected recharge basin was calculated from the plant influent and effluent flow meter readings. These readings are taken at the HMI and recorded in the daily database.

RW-5 pressure switch was replaced on January 5, 2023, and the well was successfully restarted on automatic run mode. RW-5 experienced electrical short across the motor windings on January 26, 2023, and was confirmed inoperable. The motor short circuiting was confirmed on March 13, 2023 during pump extraction and inspection activities. RW-5 motor and wiring was replaced on May 1, 2023. RW-5 has been operating since the replacement activities. RW-3 continues to function normally. RW-4 was offline from August 17, 2022 through May 2, 2023 following full replacement of pump, pump motor and down well wiring. RW-4 had been operating normally since the replacement activities. The old RW-4 pump was inspected, and it was determined that the shaft has ceased up and broke off between the motor and pump connection. RW-4 experienced abnormal vibrations and tripping on August 11, 2023 and was shut down on August 14, 2023 for further electrical and mechanical troubleshooting.

During the month of August, the plant discharge was directed to Recharge Basin 33.

The total volume of treated water discharged from ~0800 hours July 28 to ~0800 hours September 1 was approximately 27,776,000 gallons. The data in **Table 2** is a summary of plant discharge flows.

A graphic representation of the system's daily plant discharge output is provided in **Figure 1** and the daily plant totalizer readings for August 2023 are provided in **Table 3**, both following the text of this report.

Under current conditions, the PLC and the control system are functioning as designed. Flows from the individual recovery wells are remotely read, transmitted, and totalized.

The flow summary for the individual components of the system can be found in **Table 4** at the end of this report.

7. CHEMICAL CONSUMPTION

The hydrochloric acid feed system is currently off-line, and the system is void of acid. There are four drums of virgin acid on site. No acid was used for water treatment purposes in August of 2023.

The sodium hydroxide storage system is currently not in use and the system is empty of caustic. There is no bulk sodium hydroxide on site and no caustic was used in August of 2023.

The sodium hypochlorite storage system is currently not in use and the system is empty of bleach. No bulk sodium hypochlorite is stored on site. No sodium hypochlorite was used in August of 2023.

8. WASTE DISPOSALS

Routine accumulation of waste materials continued from plant day to day operations. Waste removal is being handled by National Waste Services, LLC. Waste container was last emptied on May 17, 2023. A dumpster service request was placed for September 2023.

9. MONTHLY DISCHARGE MONITORING REPORT

The GWTS is operated under an equivalency permit from the NYSDEC. **Table 5** presents the Claremont OU5 O&M Sampling and Measurement requirements and their frequency. The analytical results for the plant discharge sampling conducted on August 7, 2023 indicate that the analyzed parameters were compliant with permit limits (**Table 6**). Monthly system sampling analytical results are provided in **Attachment 1**.

The OU5 GWTS plant's water discharge permit is in the process of being renewed by the NYSDEC.

10. PENDING ISSUES AND CONSIDERATIONS

Mechanical repairs have been made to the plant HVAC system at OU4. Upon testing, the gas supply appeared to be shut off. Ramboll is currently planning demolition of the OU4 building.

The sprinkler system at OU4 remains drained of water. The potable and non-potable water lines at OU4 have been drained.

The discrepancies/inaccuracies in the plant flow meter readings at OU5 may be due to the inappropriate configuration of the local piping. Future calibration or adjustment of pulse reading may be required.

Repairs have been made at RW-4 and RW-5. Both pumps were returned to operation. RW-4 experienced excessive vibrations on August 11, 2023 and was shut down on August 14, 2023 to preserve mechanical components until further testing and troubleshooting is conducted.

The OU4 plant is offline and its disposition including that of the injection well system, and vapor carbon beds is pending.

The status of key aspects of OU4 are as follows:

- The plant heat is currently off, and the system is out of service.
- The fire alarm panels are off-line.
- The fire sprinkler system is currently off-line. The water has been drained from the system. An alarm system for the sprinkler has been installed with central monitoring.
- The facility is secure, and its physical monitoring continues.
- The facility and grounds are not maintained except for the facility entrance and plant egress points.
- NYSDEC plans on decommissioning and demolishing OU4. A team from Ramboll is in the process of developing bid documents for this work.

11. PLANT DOCUMENTS

Procedures and standard forms are written, reviewed, and revised as needed. As-built drawings are generated and updated as necessary.

12. MONITORING RESULTS

The CPC GWTS is monitored through the analysis of off-site laboratory analytical data and on-site field data.

12.1 Off-site Analytical Data Results

Monthly Plant Discharge (PD) samples are taken for organic analysis in compliance with the NYSDEC discharge permit. Quarterly groundwater samples are taken for organic analysis, and quarterly process water (PW) samples are taken for organic, inorganic, and generic analysis. At the direction of the NYSDEC in an August 17, 2022 email, analysis of Per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane were added to monthly sampling for both influent and effluent for the foreseeable future. The August 2023 PFAS and 1,4-dioxane influent and effluent results can be found in **Table 7** following the text of this report. Monthly system sampling analytical results are provided in **Attachment 1**.

The August sampling activities included:

- The August PD data was processed and submitted.
- Monthly system sampling was completed on August 7, 2023.
- Quarterly groundwater elevation monitoring and groundwater sampling via low flow method and passive diffusive bailers.

12.2 Field Data

12.2.1 Plant Discharge pH and Temperature

The treatment plant effluent is monitored for pH and temperature on a weekly basis to obtain a monthly average in compliance with the NYSDEC discharge permit requirements. These measurements are taken from the plant effluent at a controlled point with a calibrated portable meter. The plant discharge readings for August 2023 can be found in **Table 8** following the text of this report.

The August 2023 average pH measurement was 7.24 standard units (su). The NYSDEC discharge permit requires the plant discharge to have an average monthly pH between 6.5 and 8.5 su. The results for this month meet this requirement. Data showing the plant discharge's monthly average pH trend over several months is provided in **Table 9** following the text of this report.

12.2.2 Air Stripper (AS) Tower Air Monitoring

Using a calibrated photoionization detector (PID), the vapor discharge from the air stripper tower was monitored weekly for volatile organic compounds (VOCs). The measurements were taken from the tower's effluent air stream through Port B when the treatment system is online. The August 2023 readings from the AS tower are provided in **Table 10**.

Other routine data collected in August included:

- The electric and water meter readings at OU5 were recorded weekly.
- The plant vaults and selected areas were monitored for VOCs weekly.

- The plant sound levels were recorded bi-weekly.
- The monthly electric and gas meter readings for OU4 were recorded.
- The recharge basins were inspected weekly.
- The differential pressure readings across the AS Tower were recorded bi-weekly.

13. PROCESS ANALYSIS AND SYSTEM STATUS

The treatment system is currently operated 24/7 in the automatic mode. It is remotely monitored as necessary.

13.1 Extraction (RW) Processes

- The monthly system inspection was completed.
- The vault space heating units were deactivated on March 23, 2023.
- The recovery well pump system is remotely controlled and monitored, it operates in the auto mode.
- The pump at RW-3 is online and fully functional.
- The pump at RW-4 experienced multiple random shut downs and was quickly restarted without any issues. The pump experience excessive vibrations and electrical shut downs beginning on August 11, 2023 and was temporarily shut down on August 14, 2023 to preserve the pump until further testing.
- The pump at RW-5 is online and fully functional following motor replacement on May 1, 2023.
- Pump flow readouts are transmitted to the plant and the totalizers for pumps RW-3, and RW-4 are fully functional. The local flow meter for RW-5 occasionally stops transmitting.
- Air/Vacuum (A/V) valve at station 33+96 encountered a leak in May that required the vault to be pumped out and have its air/vacuum valve removed. Currently a stopper has been fitted to the pit that allows water to flow through the system.
- The Air/Vacuum (A/V) valve at station 16+57 and 17+10 remain isolated from the transmission line.
- RW-1 and RW-2 are offline and periodically run for preventative maintenance purposes. Their flow meters are not transmitting through the PLC. When repairs were made at RW-1 in November 2021, stones were removed from the flow meterhousing. There was a thick coating of iron salt deposits on the housing and impeller. Both RW-1 and RW-2 are isolated from the process pipeline throughout the operating period. On a monthly basis, the isolation valves are actuated open and pumps are run for 5 minutes to rotate the motors. The pumps were tested operational on August 14, 2023.

13.2 AS Process

- The three OU5 ASF pumps in the AS Process are fully functional.
- Motors and seals were lubricated on a bi-weekly schedule. Seals were tightened and the drains were cleared as necessary.
- The AS tower main drain valve's manual actuator is not functional (fail open).
- The tower media appears clean as the pressure differential between the top and bottom ports remains relatively constant. The lower section of media has been visually inspected.
- The discharge valves for ASF P1 and P2 appear to be frozen in the open position.

13.3 PD Process

- The plant discharge flow is currently directed to Recharge Basin 33.

- The valve influent to Recharge Basin 1 remained closed during the August reporting period.
- Pump 1 has been taken out of service due to excessive noise and vibration. A full evaluation is required. Pumps 2 and 3 are fully functional.
- The motors and seals were lubricated as necessary.
- The discharge valve for PFF P3 has failed open.

13.4 Other

- The plant's first bank of lights is wired to the emergency-light recharging system. The circuit is kept on 24/7. The lamps appear burnt out. The second bank of lights provides sufficient lighting for general tasks. Additional work lights were installed around the plant area to further illuminate work areas.
- The potential for leaks in the water supply line running through the plant will continue to be monitored.
- The fire alarm and central monitoring systems are fully functional. Annual fire alarm service and inspection was conducted on August 11, 2023 by Island Fire & Defense Systems.

14. GROUNDS

14.1 Plant Perimeter

- General outdoor clean-up tasks are on-going.
- The fencing is clear and secure.

14.2 Well Field

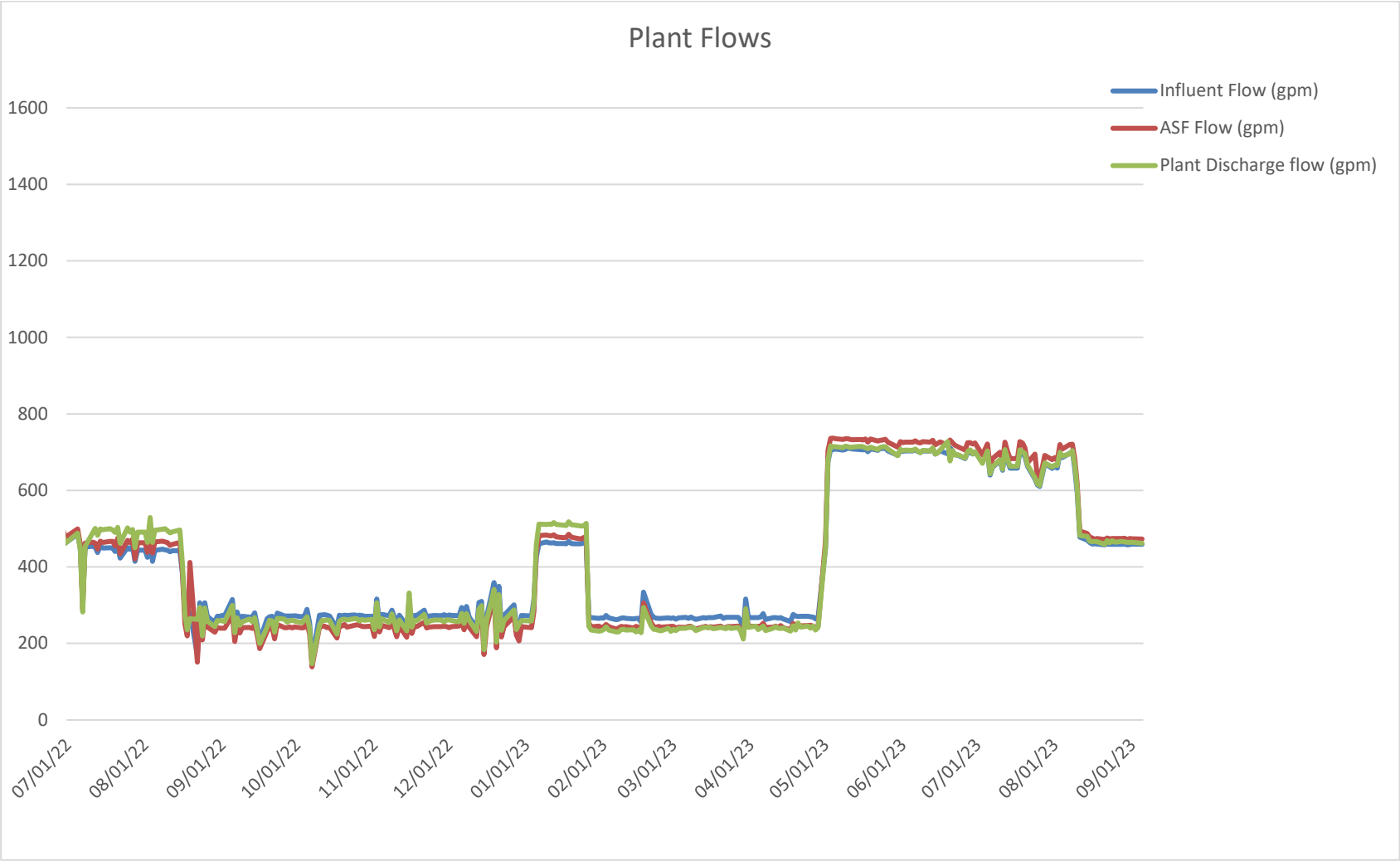
- Well field, and recharge basin inspections continue. Quarterly groundskeeping activities are performed in order to clear vegetation and poison ivy from around all well fields in anticipation of quarterly groundwater sampling event. In addition, the entrance to recharge basin #33 is maintained for ease of access.

14.3 Other

- The CPC GWTF OU4 is secure.
- The property at and around the OU4 site continues to be inspected. While the grounds are not maintained, the treatment plant's entrance and egress points are kept clear and functional.

FIGURE

Figure 1
Plant Discharge Daily Flow



TABLES

Table 1
Claremont Corrective Actions Summary

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
The RW Discharge Manifold integrity is suspect	The condition of the various devices on the RW discharge manifold are suspect. The Air Vent valve in the vault on the N-side of the 6th fairway is leaking from the influent nipple. The shut-off valve was closed and the device isolated. The air-vent valve in the vault to the east of the 6th green is leaking. The shut-off valve was closed and the device isolated. The manifold employs isolation, venting, and drain valves as well as other devices. Along the path of the manifold are vaults which house some of these devices. These vaults need to be accessed, pumped out, and the devices tested. Two isolation valves were closed between RW-1 and RW-3. These valves seemed to hold.	Plant staff and outside contractors	Possible shutdown	May require a Confined Space Entry (CSE)
AS Tower main drain valve is not controlled	The valve does not respond to manipulation of its actuator. <i>This valve should be replaced.</i> <i>No further action is planned at this time.</i>	Operator	Plant will need to be shut down to change out the valve	None

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
OU4 fire alarm system is not functioning Central monitoring of the fire alarm system or fire suppression system does not exist OU4 electrical system has been unstable	The Nassau County Fire Code indicates that the sprinkler system must have central monitoring for flow and valve tampering. The fire alarm system needs to be replaced and centrally monitored. Several contractors have been at the site to propose options for the system. BK Fire installed central monitoring on the sprinkler system. Both are offline as the sprinkler system will remain drained until the HVAC system is repaired. Certain OU4 lights currently create a large amount of noise in the fan box within the control room. The southern lights flicker and then die including the emergency system. OU4 is currently being planned for demolition.	Plant operator, Electrical Engineer (EE) and outside vender	None at this time	Fire code violations. High altitude tasks, safety code violations
Several leaks were observed in the plant overhead water supply line	Adjacent to the north door a clam-shell type clamp was applied. The second leak observed above the AS Blower is not readily accessible. It is not problematic. <i>Repair work may require evaluation and outside resources. Currently the situation is controlled.</i>	Outside plumbing contractor	None	Sanitary water may be shut off during repairs

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
The float controls for the PFF pump system have intermittently shorted out causing the system to not properly control the pumping operation	The wiring of the pump control system is connected below grade. The junction box in the wet well is thought to be filled with water creating a problem with the float switches to control relay wiring. The box cannot be opened without damage to it and the conduit. This appears to have been a longstanding problem, as when switches have been replaced in the past, they were spliced outside the box. The float switches have been replaced and spliced above the sump but there remains a problem with the L2 circuit. The output from the W-2 relay was moved to the output for the W-1 relay. This has stopped the short cycling. <i>The control wiring should be changed and moved above grade. Currently the second splices to the floats are above ground outside the vault.</i>	Plant operator and GES resources	Plant shut down is required	Possible Confined Space Entry work
PFF P1 has failed	The pump when activated immediately makes a lot of noise, and the pump drop pipe shakes. Smoke/fumes emanated at the Motor-shaft connection. The motor appears to be good. The pump was removed from service, February 24, 2020. <i>It is recommended that the motor be disconnected, lifted, and the mechanical connection checked.</i>	Outside contractors	None anticipated	To be determined

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
As the ASF pumps cycle off/on, the check valves have started to slam closed. When reactivating, the motor starter contact is rather violent. Both actions tend to rattle the piping and fixtures	There is no available literature regarding the check valves, so the exact description of their functioning parts is to be determined. A softer start/stop control may fix this issue. <i>This will need further investigation. Soft-start equipment and variable frequency controls were discussed.</i>	Plant operator and EE support	If replacement or repairs are necessary, a plant shutdown will be required as the units can- not be isolated	To be determined
The flowmeters for system flow, ASF flow and plant discharge are out of sync with the flow meters on the recovery wells	While the ASF flow meter is the most out of line, it is plumbed correctly. The influent system flow meter and the plant discharge flow meters are piped incorrectly. The same style of relay is used to count pulses, but the meters have not been calibrated. The system needs further investigation to determine if any changes are warranted.	EE support	To be determined	none
EF-4 is not operatable	The fan is controlled through the mezzanine thermostat, but it does not appear to be operating. The fan requires electrical testing. The system was checked, it appears that the fan is not functioning. The fan should be replaced.	EE support	Only in an emergency	Only in an emergency
Wiring nests in main control console	The wiring in the main control console needs to be cleaned up and labeled, to facilitate problem troubleshooting and process improvements.	EE support	A shut down may be necessary	Electrical work

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
Pressure Filter Feed pump controls	With P1 out of service, the sequencing of pumps allows for the PFF vault to reach HHL conditions in certain circumstances. Reprogram the sequencing to eliminate the position of P1.	EE support	To be determined	To be determined
RW-5 has failed	RW-5 pump was replaced on October 10, 2022, however due to PLC signal loss, it cannot be operated in automatic mode. GES conducted troubleshooting and parts replacement without success. System controls were examined by a PLC certified technician mid-December and determined pressure switch failure. Used device has been installed while a new one has been ordered. The pump ran on auto mode from January 5, 2023 to January 26, 2023 until an electrical short at the motor disabled the safe operation of the pump. New pressure switch was installed on March 23, 2023. New pump motor installed on May 1, 2023.	Plant Operator and Ramboll.	Less water is treated	To be determined
RW-4 has failed	RW-4 started to experience possible motor thermal overload shutdowns on multiple occasions during August monitoring period. The pump motor fully shut down on August 17, 2022 and all troubleshooting/restarting attempts were unsuccessful. New pump and pump motor installed on May 2, 2023. Pump experienced excessive vibration and shut downs on August 11, 2023. Suspected impeller bearing failure or electrical short circuiting. Pump temporarily shut down on August 14, 2023 for further electrical testing.	Plant Operator and Ramboll	Less water is treated	To be determined
Air vacuum valve removal	On May 22, 2022 RW-4 was shut down due to a leak detected in the field near an air/vacuum valve pit. On May 24 2022 through May 25, 2022 water was pumped out of the vault and on May 31, 2022 a	GES Mechanical Support	Less water is treated	Confined space entry required to do work in vault

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
	confined space entry was made to attempt to tighten the valve in an effort to stop the leak. This tightening was unsuccessful, and the valve was removed entirely and replaced with a blank flange until further notice.			
Plant Electric Heater UH-3 failure and HVAC system performance	During sub-20 deg.F weather, the emergency electric heater failed. The HVAC system struggled to produce heat and the plant temperatures dipped to around mid-30's during that time.	Outside contractor	Water lines freezing	Equipment damage

Other Plant Conditions of Note (no action required at this time)

- The methane detection system is offline. **To function, it will need a technical inspection and maintenance.** However, methane does not currently appear to be a hazard.
- It has been determined that intrinsically safe components are no longer required in the plant.
- There has been no need for acid washing of the AS Tower media, the hydrochloric acid feed and storage system have not been operated. The tanks have not been filled and the level monitoring system has not been operated.

As previously noted, there are pieces of equipment that are out of service and require repairs. Currently there are no plans for addressing these conditions as the operation of this equipment is not necessary or needed for the operation of the treatment system.

Equipment	Fault	Status
Plant electric heater UH-1	Needs transformer	Heater is not needed
Plant electric heater UH-2	Needs relay timer and wiring repairs	Heater is not needed
Recovery well pump pressure switch assembly	Units are unwieldy and subject to vibration, corrosion, and leaks	Each unit requires assessment and disposition
NaOH sump pump	Pump is not operating	No water or chemicals stored in vault. Portable submersible pump in sump should suffice
Plant lights are wired to the emergency light charging system	Un-segregated light cannot be shut off. Several of the lamps may have burnt out	The bank of lights appear to have failed/burnt out. The second bank of lights are sufficient
Plant exhaust fans are part of methane system	Fans cannot be manually operated	Once the methane monitoring system is online, the fans can be operated

Equipment	Fault	Status
Plant discharge drain	Leak in Victaulic fitting	Drain line on plant discharge intermittently leaks. Parts are in-house. Not pressing
ASF pump isolation valve	Valve P1 has failed open	Not needed at this time
PFF pump isolation valve	Valve P3 has failed open	Not needed at this time
RW-1 flow meter	The meter is not operating	Pump is offline. Rocks were pulled from the housing and iron sediment was encrusting the flow meter impeller and housing
RW-2 flow meter	The meter is not transmitting	Pump is offline
Air stripper flow meter	Non-functional and removed	
AH-1 condenser	Air conditioner is non-functional	Two window AC units in place
Plant outdoor lights	9 of 12 lights not functioning	Not a security issue

Table 2
Plant Discharge Average Flow & Volume

Period	Average Flow (gpm)	Average Daily volume (gal)	Total Period Flow (gal)	Min off	Min on
Q4 2016	517	745,000	68,540,000	7,309	125,171
Q1 2017	520	748,244	67,342,000	655	128,945
Q2 2017	576	829,130	76,280,000	6,165	126,315
Q3 2017	634	913,576	84,049,000	1,110	131,370
Q4 2017	256	368,762	33,926,110	69,165	63,315
Q1 2018	53	75,989	6,839,000	118,180	11,420
Q2 2018	179	258,284	23,762,103	102,929	29,551
Q3 2018	504	725,280	66,725,717	57,416	75,064
Q4 2018	726	1,045,065	96,145,984	23,734	108,746
Q1 2019	527	758,467	68,262,000	735	128,865
Q2 2019	662	953,877	87,756,724	405	132,075
Q3 2019	685	985,802	90,693,740	108	132,372
Q4 2019	655	943,871	82,116,780	5,039	129,326
Q1 2020	480	682,527	62,110,000	1,824	129,326
Q2 2020	698	996,998	88,732,846	3,838	127,185
Q3 2020	669	955,928	87,945,333	1,099	131,401
Q4 2020	695	1,001,365	92,125,539	52	132,497
Q1 2021	708	1,019,733	91,776,000	0	129,603
Q2 2021	709	1,021,317	92,939,850	0	131,040
Q3 2021	615	884,934	81,413,897	0	132,475
Q4 2021	677	928,370	85,410,047	6,317	126,185
Q1 2022	633	1,291,661	80,082,987	5,280	124,320
Q2 2022	434	624,605	53,716,000	12,200	123,840
Q3 2022	365	514,501	46,283,000	3,004	124,994

Period	Average Flow (gpm)	Average Daily volume (gal)	Total Period Flow (gal)	Min off	Min on
Q4 2022	257	369,307	34,007,000	491	132,154
Q1 2023	305	434,900	37,841,000	323	123,817
Q2 2023	548	799,720	74,309,000	204	135,126
July 2023	668	960,720	24,018,000	102	35,958
August 2023	551	793,600	27,776,000	0	50,400

Acronyms: gal - gallons gpm – gallons per minute

Table 3
Plant Daily Totalizer Readings

August 2023 Flows						
Plant Influent			Plant Discharge		RW Discharge	
Date	Volume	Avg. Flow	Volume	Avg. Flow	Volume	Avg. Flow
07/28/23	-	662	-	648	-	642
07/31/23	3,049,000	691	2,964,000	672	2,959,000	671
08/01/23	980,000	681	952,000	661	947,000	658
08/02/23	988,000	686	960,000	667	955,000	663
08/03/23	977,000	678	958,000	665	948,000	658
08/04/23	1,058,000	720	1,029,000	700	1,025,000	697
08/07/23	2,973,000	708	2,897,000	690	2,881,000	686
08/08/23	1,037,000	720	1,002,000	696	1,004,000	697
08/09/23	1,059,000	720	1,035,000	704	1,023,000	696
08/10/23	974,000	684	951,000	667	945,000	663
08/11/23	881,000	618	862,000	605	847,000	594
08/14/23	2,132,000	494	2,082,000	482	2,065,000	478
08/15/23	702,000	488	691,000	480	687,000	477
08/16/23	688,000	478	673,000	467	658,000	457
08/17/23	685,000	476	671,000	466	662,000	460
08/18/23	680,000	472	672,000	467	663,000	460
08/21/23	2,049,000	474	2,012,000	466	1,985,000	459
08/22/23	679,000	472	661,000	459	659,000	458
08/23/23	685,000	476	675,000	469	662,000	460
08/24/23	709,000	473	695,000	463	689,000	459
08/25/23	655,000	475	647,000	469	634,000	459
08/28/23	2,048,000	474	2,008,000	465	1,983,000	459
08/29/23	683,000	474	672,000	467	661,000	459
08/30/23	684,000	475	670,000	465	662,000	460
08/31/23	679,000	472	669,000	465	659,000	458
09/01/23	683,000	474	668,000	464	660,000	458
August Total Plant Influent (Gal)			28,417,000			
August Total Plant Effluent (Gal)			27,776,000			
August Total RW Discharge (Gal)			27,523,000			

Acronyms: gal - gallons gpm – gallons per minute

Table 4
Pump System Flow Readings

August	On-Time Minutes (actual)	Avg. Flow (gpm)	Avg. Flow (gpd)	Total Flow (gal)
RW-1*	5	149	0	745
RW-2*	5	209	0	1,045
RW-3	50,400	210	302,200	10,577,000
RW-4	24,480	192	133,971	4,689,000
RW-5	50,400	247	355,057	12,427,000
RW Totals	50,400	546	786,371	27,523,000
Plant Influent	50,400	564	811,914	28,417,000
Plant Effluent	50,400	551	793,600	27,776,000

Acronyms: gal - gallons gpm – gallons per minute gpd – gallons per day

The treatment process was online 35 days during this period with 0 minutes of downtime. RW-4 pump experienced random shut downs and excessive vibration at the well head and was temporarily placed offline until further electrical and mechanical inspection. Flows are taken from the HMI meter readings.

* Offline aside from monthly process equipment test to check their functionality. There are no average gallons per day.

Table 5
Claremont OU5 O&M Sampling/Measurement Program and Frequency

Measurement / Analyte	Sampling Location			
	System Influent	Plant Discharge	Recovery Wells	Monitoring Wells
Flow	Daily	Daily	Daily	NA
pH	Quarterly	Weekly	Quarterly	Quarterly
VOCs (+Tert-Butyl-Methyl ether (MTBA) & Tert-butyl alcohol (TBA))	Quarterly	Monthly	Quarterly	Quarterly
Semi-Volatile Organic Compound (SVOC) Base Neutral & Acid Extractables (BNA)	Quarterly	Monthly	NS	NS
Per- and polyfluoroalkyl substances (PFAS)	Monthly	Monthly	NS	Quarterly ⁽¹⁾
1,4-Dioxane	Monthly	Monthly	NS	Quarterly ⁽¹⁾
Total Kjeldahl Nitrogen→ (TKN)	NS	Quarterly	NS	NS
Total Suspended Solids (TSS)	Quarterly	NS	Quarterly	NS
Total Organic Carbon (TOC)	Quarterly	NS	NS	NS
Total Dissolved Solids (TDS)	NS	Quarterly	NS	NS
Cyanide	NS	Quarterly	NS	NS
Hexavalent Chromium	NS	Quarterly	NS	NS
Mercury	NS	Quarterly	NS	NS
Metals	Quarterly	Quarterly	Quarterly	NS
Anions	NS	Quarterly	NS	NS

Notes: NA – Not applicable; NS – Not sampled. ⁽¹⁾ – CPC wells only

Table 6
Plant Discharge Analytical Results
August 7, 2023

Parameters	Discharge Limitations (SPDES)	Units	Results
<i>pH (range)</i>	6.5 – 8.5	<i>su</i>	7.24
1,1,1-Trichloroethane	5	ug/l	U
1,1-Dichloroethane	5	ug/l	U
1,1-Dichloroethylene	5	ug/l	U
1,2- Dichloroethane	0.6	ug/l	U
Benzene	0.7	ug/l	U
Chlorobenzene	5	ug/l	U
Chloroform	7	ug/l	U
CIS 1,2-Dichloroethylene	5	ug/l	U
Ethylbenzene	5	ug/l	U
Methylene Chloride	5	ug/l	U
Tert-butyl alcohol (TBA)	Not indicated	ug/l	U
Tert-Butyl-Methyl ether (MTBA)	5	ug/l	U
Tetrachloroethylene (PCE)	5	ug/l	U
Toluene	5	ug/l	U
Trans 1,2-Dichloroethylene	5	ug/l	U
Trichloroethylene (TCE)	5	ug/l	U
Bis(2-ethylhexyl) phthalate	5	ug/l	U
Di-n-butyl phthalate	50	ug/l	U
Nitro Benzene	0.4	ug/l	U
Antimony, Total recoverable	3	ug/l	NS
Arsenic, Total recoverable	50	ug/l	NS
Barium, Total recoverable	2000	ug/l	NS
Chromium, Hexavalent	100	ug/l	NS
Lead, Total recoverable	50	ug/l	NS
Iron, Total recoverable	600	ug/l	NS
Manganese, Total recoverable	600	ug/l	NS
Mercury	Not indicated	ug/l	NS
Zinc	Not indicated	mg/l	NS
Nitrogen, Total (as N)	10	mg/l	NS
Selenium, Total recoverable	40	ug/l	NS
Solids, Total Dissolved	1000	mg/l	NS
Chloride Ion	NL	mg/l	NS
Cyanide	Not indicated	ug/l	NS
Fluoride Ion	NL	mg/l	NS

Parameters	Discharge Limitations (SPDES)	Units	Results
Sulfate Ion	NL	mg/l	NS
J – Estimated value U – Analyzed but not detected NL – Monitor only NS– Not sampled SPDES – State Pollutant Discharge Elimination System ug/l – micrograms per liter ng/l – nanograms per liter mg/l – milligrams per liter Discharge limitations updates as per the water discharge permit. Note: Parameters shaded in gray are analyzed quarterly with results generally being provided March, June, October, and December.			

Table 7
Emerging Contaminant Influent & Effluent Analytical Results
August 7, 2023

Parameters	Guidance Values	Units	Influent Results	Effluent Results
Perfluorooctanoic acid (PFOA)	6.7 ¹	ng/l	36 / 37	35 / 36
Perfluorooctanesulfonic acid (PFOS)	2.7 ¹	ng/l	14 / 14	14 / 14
1,4-Dioxane	0.35 ¹	ug/l	20 / 20	20 / 20
J – Estimated value U – Analyzed but not detected ug/l – micrograms per liter ng/l – nanograms per liter x / x – indicates primary/duplicate results				
¹ NYSDEC - 2023 Addendum to June 1998 Division of Water Technical and Operational Guidance Series (TOGS) NO. 1.1.1.				

Table 8
Effluent pH and Temperature Readings

Date	pH (su)	Temp (° C)
07/31/2023	6.95	17.3
08/08/2023	7.26	19.0
08/16/2023	7.16	17.9
08/21/2023	7.69	17.8
08/30/2023	7.14	20.6
August Average	7.24 su	18.5 °C

Table 9
Plant Discharge Monthly Average pH

Month	pH(su)
Aug '19	6.56
Sept '19	7.45
Oct '19	6.86
Nov '19	6.88
Dec '19	6.84
Jan '20	6.63
Feb '20	6.75
Mar '20	6.74
Apr '20	6.65
May '20	6.8
June '20	6.8
July '20	6.9
Aug '20	6.8
Sept '20	6.8
Oct. '20	6.95
Nov '20	6.8
Dec '20	6.64
Jan '21	6.8
Feb '21	6.75
Mar '21	6.76
Apr '21	7.28
May '21	7.53
June '21	7.44
July '21	7.41
Aug '21	7.42
Sept '21	7.13
Oct '21	7.10
Nov '21	7.09
Dec '21	7.01
Jan '22	6.90
Feb '22	6.90
Mar '22	6.80
Apr '22	6.78
May '22	6.79
June '22	6.79
July '22	7.01
Aug '22	6.99
Sept '22	7.19
Oct '22	7.62
Nov '22	7.68
Dec '22	7.52

Month	pH(su)
Jan '23	7.24
Feb '23	7.36
Mar '23	7.56
Apr '23	7.28
May '23	7.56
June'23	7.36
July` 23	7.39
Aug` 23	7.24

Plant Discharge Monthly Average pH Readings

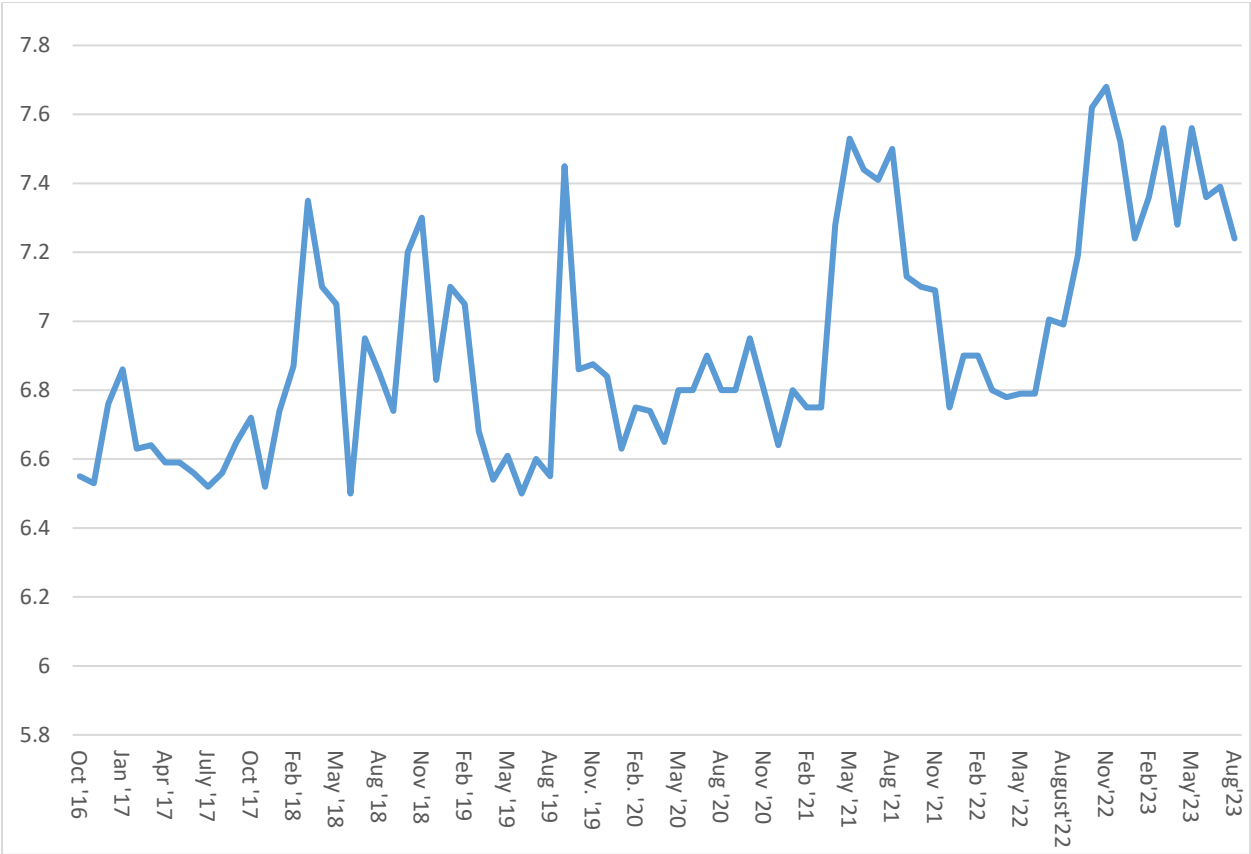


Table 10
AS Tower Air Monitoring Readings

Recorded Date	Port B (ppm)
07/31/2023	0.0
08/08/2023	0.0
08/16/2023	0.4
08/21/2023	0.0
08/30/2023	0.1

ATTACHMENT 1
MONTHLY O&M SAMPLING ANALYTICAL RESULTS –AUGUST 7, 2023

September 11, 2023

Payson Long
NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221

Project Location: Old Bethpage, New York
Client Job Number:
Project Number: 130015
Laboratory Work Order Number: 23H1176

Enclosed are results of analyses for samples as received by the laboratory on August 8, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kyle A. Murray
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221
ATTN: Payson Long

REPORT DATE: 9/11/2023

PURCHASE ORDER NUMBER: 144165

PROJECT NUMBER: 130015

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23H1176

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Old Bethpage, New York

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
PD-CP-00-080723	23H1176-01	Ground Water		Draft Method 1633	
PD-CP-01-080723	23H1176-02	Ground Water		Draft Method 1633	
ASF-CP-00-080723	23H1176-03	Ground Water		Draft Method 1633	
ASF-CP-01-080723	23H1176-04	Ground Water		Draft Method 1633	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Draft Method 1633

Qualifications:

H-02

Gross violation of holding time. Analysis performed after 2X the allowable holding time.

Analyte & Samples(s) Qualified:

Total Suspended Solids

23H1176-01[PD-CP-00-080723], 23H1176-02[PD-CP-01-080723], 23H1176-03[ASF-CP-00-080723], 23H1176-04[ASF-CP-01-080723]

Z-01

Extracted internal standard outside of control limits. Analyte is a known difficult compound.

Analyte & Samples(s) Qualified:

13C2-4:2FTS

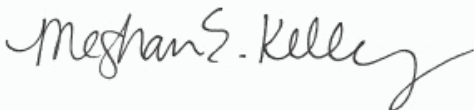
B349995-MRL1

1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FT)

B349995-MRL1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1176-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	33	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluoropentanoic acid (PFPeA)	18	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorohexanoic acid (PFHxA)	23	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluoroheptanoic acid (PFHpA)	12	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorooctanoic acid (PFOA)	35	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorononanoic acid (PFNA)	25	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorodecanoic acid (PFDA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorobutanesulfonic acid (PFBS)	4.3	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.6	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorohexanesulfonic acid (PFHxS)	8.3	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorooctanesulfonic acid (PFOS)	14	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
N-EtFOSAA (NEtFOSAA)	2.3	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.0	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.0	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
11Cl-PF3OUs (F53B Major)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.0	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	45	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	45	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1176-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:16	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	32.0	10-130						9/5/23 14:16	
13C5-PFPeA	68.1	35-150						9/5/23 14:16	
13C5-PFHxA	70.3	55-150						9/5/23 14:16	
13C4-PFHpA	69.0	55-150						9/5/23 14:16	
13C8-PFOA	66.6	60-140						9/5/23 14:16	
13C9-PFNA	67.7	55-140						9/5/23 14:16	
13C6-PFDA	69.5	50-140						9/5/23 14:16	
13C7-PFUnA	69.7	30-140						9/5/23 14:16	
13C2-PFDoA	59.0	10-150						9/5/23 14:16	
13C2-PFTeDA	57.0	10-130						9/5/23 14:16	
13C3-PFBS	69.2	55-150						9/5/23 14:16	
13C3-PFHxS	67.9	55-150						9/5/23 14:16	
13C8-PFOS	65.8	45-140						9/5/23 14:16	
13C2-4:2FTS	85.8	60-200						9/5/23 14:16	
13C2-6:2FTS	67.1	60-200						9/5/23 14:16	
13C2-8:2FTS	60.9	50-200						9/5/23 14:16	
13C8-PFOSA	59.4	30-130						9/5/23 14:16	
D3-NMeFOSA	54.6	15-130						9/5/23 14:16	
D5-NEtFOSA	56.3	10-130						9/5/23 14:16	
D3-NMeFOSAA	62.0	45-200						9/5/23 14:16	
D5-NEtFOSAA	59.8	10-200						9/5/23 14:16	
D7-NMeFOSE	57.9	10-150						9/5/23 14:16	
D9-NEtFOSE	53.8	10-150						9/5/23 14:16	
13C3-HFPO-DA	68.0	25-160						9/5/23 14:16	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1176-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	ND	10	mg/L	1	H-02	Draft Method 1633	8/26/23	8/26/23 14:20	IS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1176-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	30	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluoropentanoic acid (PFPeA)	20	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorohexanoic acid (PFHxA)	24	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluoroheptanoic acid (PFHpA)	13	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorooctanoic acid (PFOA)	36	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorononanoic acid (PFNA)	25	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorodecanoic acid (PFDA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorobutanesulfonic acid (PFBS)	4.0	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.8	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorohexanesulfonic acid (PFHxS)	8.6	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorooctanesulfonic acid (PFOS)	14	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
N-EtFOSAA (NEtFOSAA)	2.0	0.91	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.1	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.1	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
11Cl-PF3OUs (F53B Major)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.1	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	46	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	46	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1176-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:32	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	29.9	10-130						9/5/23 14:32	
13C5-PFPeA	65.0	35-150						9/5/23 14:32	
13C5-PFHxA	67.9	55-150						9/5/23 14:32	
13C4-PFHpA	65.6	55-150						9/5/23 14:32	
13C8-PFOA	68.8	60-140						9/5/23 14:32	
13C9-PFNA	65.9	55-140						9/5/23 14:32	
13C6-PFDA	66.2	50-140						9/5/23 14:32	
13C7-PFUnA	65.1	30-140						9/5/23 14:32	
13C2-PFDoA	59.2	10-150						9/5/23 14:32	
13C2-PFTeDA	55.5	10-130						9/5/23 14:32	
13C3-PFBS	66.6	55-150						9/5/23 14:32	
13C3-PFHxS	64.4	55-150						9/5/23 14:32	
13C8-PFOS	65.0	45-140						9/5/23 14:32	
13C2-4:2FTS	80.5	60-200						9/5/23 14:32	
13C2-6:2FTS	65.2	60-200						9/5/23 14:32	
13C2-8:2FTS	58.0	50-200						9/5/23 14:32	
13C8-PFOSA	55.4	30-130						9/5/23 14:32	
D3-NMeFOSA	52.6	15-130						9/5/23 14:32	
D5-NEtFOSA	52.0	10-130						9/5/23 14:32	
D3-NMeFOSAA	56.9	45-200						9/5/23 14:32	
D5-NEtFOSAA	57.5	10-200						9/5/23 14:32	
D7-NMeFOSE	52.4	10-150						9/5/23 14:32	
D9-NEtFOSE	47.0	10-150						9/5/23 14:32	
13C3-HFPO-DA	65.3	25-160						9/5/23 14:32	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1176-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	14	10	mg/L	1	H-02	Draft Method 1633	8/26/23	8/26/23 14:20	IS

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: ASF-CP-00-080723

Sampled: 8/7/2023 13:20

Sample ID: 23H1176-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	26	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluoropentanoic acid (PFPeA)	19	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorohexanoic acid (PFHxA)	24	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluoroheptanoic acid (PFHpA)	13	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorooctanoic acid (PFOA)	36	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorononanoic acid (PFNA)	25	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorodecanoic acid (PFDA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorobutanesulfonic acid (PFBS)	4.5	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.9	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorohexanesulfonic acid (PFHxS)	8.7	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorooctanesulfonic acid (PFOS)	14	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
N-EtFOSAA (NEtFOSAA)	2.5	0.89	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	8.9	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	8.9	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
11Cl-PF3OUdS (F53B Major)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	8.9	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	44	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	44	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: ASF-CP-00-080723

Sampled: 8/7/2023 13:20

Sample ID: 23H1176-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 14:47	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	68.4	10-130						9/5/23 14:47	
13C5-PFPeA	65.1	35-150						9/5/23 14:47	
13C5-PFHxA	66.1	55-150						9/5/23 14:47	
13C4-PFHpA	63.9	55-150						9/5/23 14:47	
13C8-PFOA	63.9	60-140						9/5/23 14:47	
13C9-PFNA	69.1	55-140						9/5/23 14:47	
13C6-PFDA	64.4	50-140						9/5/23 14:47	
13C7-PFUnA	60.1	30-140						9/5/23 14:47	
13C2-PFDoA	52.9	10-150						9/5/23 14:47	
13C2-PFTeDA	50.8	10-130						9/5/23 14:47	
13C3-PFBS	66.2	55-150						9/5/23 14:47	
13C3-PFHxS	64.3	55-150						9/5/23 14:47	
13C8-PFOS	63.9	45-140						9/5/23 14:47	
13C2-4:2FTS	82.0	60-200						9/5/23 14:47	
13C2-6:2FTS	63.9	60-200						9/5/23 14:47	
13C2-8:2FTS	58.2	50-200						9/5/23 14:47	
13C8-PFOSA	55.0	30-130						9/5/23 14:47	
D3-NMeFOSA	53.0	15-130						9/5/23 14:47	
D5-NEtFOSA	51.5	10-130						9/5/23 14:47	
D3-NMeFOSAA	53.0	45-200						9/5/23 14:47	
D5-NEtFOSAA	51.1	10-200						9/5/23 14:47	
D7-NMeFOSE	56.0	10-150						9/5/23 14:47	
D9-NEtFOSE	50.6	10-150						9/5/23 14:47	
13C3-HFPO-DA	67.7	25-160						9/5/23 14:47	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: ASF-CP-00-080723

Sampled: 8/7/2023 13:20

Sample ID: 23H1176-03

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	ND	10	mg/L	1	H-02	Draft Method 1633	8/26/23	8/26/23 14:20	IS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: ASF-CP-01-080723

Sampled: 8/7/2023 13:35

Sample ID: 23H1176-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	27	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluoropentanoic acid (PFPeA)	19	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorohexanoic acid (PFHxA)	24	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluoroheptanoic acid (PFHpA)	13	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorooctanoic acid (PFOA)	37	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorononanoic acid (PFNA)	26	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorodecanoic acid (PFDA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorobutanesulfonic acid (PFBS)	4.1	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.7	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorohexanesulfonic acid (PFHxS)	8.7	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorooctanesulfonic acid (PFOS)	14	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
N-EtFOSAA (NEtFOSAA)	2.1	0.90	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.0	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.0	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
11Cl-PF3OUs (F53B Major)	ND	3.6	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.0	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	45	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	45	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: ASF-CP-01-080723

Sampled: 8/7/2023 13:35

Sample ID: 23H1176-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		Draft Method 1633	8/31/23	9/5/23 15:03	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	68.3	10-130						9/5/23 15:03	
13C5-PFPeA	67.0	35-150						9/5/23 15:03	
13C5-PFHxA	69.5	55-150						9/5/23 15:03	
13C4-PFHpA	66.6	55-150						9/5/23 15:03	
13C8-PFOA	67.2	60-140						9/5/23 15:03	
13C9-PFNA	71.3	55-140						9/5/23 15:03	
13C6-PFDA	69.1	50-140						9/5/23 15:03	
13C7-PFUnA	67.0	30-140						9/5/23 15:03	
13C2-PFDoA	60.6	10-150						9/5/23 15:03	
13C2-PFTeDA	54.7	10-130						9/5/23 15:03	
13C3-PFBS	66.7	55-150						9/5/23 15:03	
13C3-PFHxS	65.6	55-150						9/5/23 15:03	
13C8-PFOS	67.9	45-140						9/5/23 15:03	
13C2-4:2FTS	78.3	60-200						9/5/23 15:03	
13C2-6:2FTS	64.1	60-200						9/5/23 15:03	
13C2-8:2FTS	61.6	50-200						9/5/23 15:03	
13C8-PFOSA	55.5	30-130						9/5/23 15:03	
D3-NMeFOSA	47.4	15-130						9/5/23 15:03	
D5-NEtFOSA	48.0	10-130						9/5/23 15:03	
D3-NMeFOSAA	57.2	45-200						9/5/23 15:03	
D5-NEtFOSAA	54.5	10-200						9/5/23 15:03	
D7-NMeFOSE	55.0	10-150						9/5/23 15:03	
D9-NEtFOSE	50.0	10-150						9/5/23 15:03	
13C3-HFPO-DA	69.1	25-160						9/5/23 15:03	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1176

Date Received: 8/8/2023

Field Sample #: ASF-CP-01-080723

Sampled: 8/7/2023 13:35

Sample ID: 23H1176-04

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	ND	10	mg/L	1	H-02	Draft Method 1633	8/26/23	8/26/23 14:20	IS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data**Prep Method:**Draft Method 1633 **Analytical Method:**Draft Method 1633 **Leachates were extracted on 8/26/2023 per NO PREP in Batch B350256**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23H1176-01 [PD-CP-00-080723]	B349995	553	5.00	08/31/23
23H1176-02 [PD-CP-01-080723]	B349995	549	5.00	08/31/23
23H1176-03 [ASF-CP-00-080723]	B349995	562	5.00	08/31/23
23H1176-04 [ASF-CP-01-080723]	B349995	556	5.00	08/31/23

Draft Method 1633

Lab Number [Field ID]	Batch	Initial [mL]	Date
23H1176-01 [PD-CP-00-080723]	B350256	50.0	08/26/23
23H1176-02 [PD-CP-01-080723]	B350256	50.0	08/26/23
23H1176-03 [ASF-CP-00-080723]	B350256	50.0	08/26/23
23H1176-04 [ASF-CP-01-080723]	B350256	50.0	08/26/23

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B349995 - Draft Method 1633										
Blank (B349995-BLK1)				Prepared: 08/31/23 Analyzed: 09/05/23						
Perfluorobutanoic acid (PFBA)	ND	3.9	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	0.98	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	0.98	ng/L							
Perfluorooctanoic acid (PFOA)	ND	0.98	ng/L							
Perfluorononanoic acid (PFNA)	ND	0.98	ng/L							
Perfluorodecanoic acid (PFDA)	ND	0.98	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	0.98	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	0.98	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	0.98	ng/L							
Perfluorotetradecanoic acid (PFTeDA)	ND	0.98	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	0.98	ng/L							
Perfluoropentanesulfonic acid (PFPeS)	ND	0.98	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	0.98	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.98	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	0.98	ng/L							
Perfluorononanesulfonic acid (PFNS)	ND	0.98	ng/L							
Perfluorodecanesulfonic acid (PFDS)	ND	0.98	ng/L							
Perfluorododecanesulfonic acid (PFDoS)	ND	0.98	ng/L							
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.9	ng/L							
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.9	ng/L							
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.9	ng/L							
Perfluorooctanesulfonamide (PFOSA)	ND	0.98	ng/L							
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.98	ng/L							
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.98	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	0.98	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	0.98	ng/L							
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.8	ng/L							
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.8	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.9	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	3.9	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	3.9	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	3.9	ng/L							
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.8	ng/L							
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	ND	49	ng/L							
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	49	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	2.0	ng/L							
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	2.0	ng/L							
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	2.0	ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	ng/L							
Surrogate: 13C4-PFBA	73.9		ng/L	97.6		75.7	10-130			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B349995 - Draft Method 1633
Blank (B349995-BLK1)

Prepared: 08/31/23 Analyzed: 09/05/23

Surrogate: 13C5-PFPeA	37.9		ng/L	48.8		77.7	35-150			
Surrogate: 13C5-PFHxA	18.5		ng/L	24.4		75.9	55-150			
Surrogate: 13C4-PFHpA	17.0		ng/L	24.4		69.5	55-150			
Surrogate: 13C8-PFOA	17.5		ng/L	24.4		71.8	60-140			
Surrogate: 13C9-PFNA	9.67		ng/L	12.2		79.2	55-140			
Surrogate: 13C6-PFDA	8.96		ng/L	12.2		73.4	50-140			
Surrogate: 13C7-PFUnA	9.33		ng/L	12.2		76.5	30-140			
Surrogate: 13C2-PFDoA	8.36		ng/L	12.2		68.5	10-150			
Surrogate: 13C2-PFTeDA	7.91		ng/L	12.2		64.8	10-130			
Surrogate: 13C3-PFBS	18.3		ng/L	24.4		74.9	55-150			
Surrogate: 13C3-PFHxS	17.4		ng/L	24.4		71.2	55-150			
Surrogate: 13C8-PFOS	18.6		ng/L	24.4		76.2	45-140			
Surrogate: 13C2-4:2FTS	31.5		ng/L	48.8		64.6	60-200			
Surrogate: 13C2-6:2FTS	31.3		ng/L	48.8		64.1	60-200			
Surrogate: 13C2-8:2FTS	28.8		ng/L	48.8		59.1	50-200			
Surrogate: 13C8-PFOA	15.7		ng/L	24.4		64.3	30-130			
Surrogate: D3-NMeFOA	15.2		ng/L	24.4		62.4	15-130			
Surrogate: D5-NEtFOA	16.2		ng/L	24.4		66.3	10-130			
Surrogate: D3-NMeFOA	30.4		ng/L	48.8		62.3	45-200			
Surrogate: D5-NEtFOA	29.7		ng/L	48.8		60.9	10-200			
Surrogate: D7-NMeFOSE	172		ng/L	244		70.3	10-150			
Surrogate: D9-NEtFOSE	162		ng/L	244		66.4	10-150			
Surrogate: 13C3-HFPO-DA	74.6		ng/L	97.6		76.4	25-160			

LCS (B349995-BS1)

Prepared: 08/31/23 Analyzed: 09/05/23

Perfluorobutanoic acid (PFBA)	97.3	4.0	ng/L	94.9		103	58-148			
Perfluoropentanoic acid (PFPeA)	47.7	2.0	ng/L	47.4		101	54-152			
Perfluorohexanoic acid (PFHxA)	23.8	0.99	ng/L	23.7		100	55-152			
Perfluoroheptanoic acid (PFHpA)	25.0	0.99	ng/L	23.7		105	54-154			
Perfluorooctanoic acid (PFOA)	24.2	0.99	ng/L	23.7		102	52-161			
Perfluorononanoic acid (PFNA)	23.6	0.99	ng/L	23.7		99.5	59-149			
Perfluorodecanoic acid (PFDA)	24.2	0.99	ng/L	23.7		102	52-147			
Perfluoroundecanoic acid (PFUnA)	24.4	0.99	ng/L	23.7		103	48-159			
Perfluorododecanoic acid (PFDoA)	24.9	0.99	ng/L	23.7		105	64-142			
Perfluorotridecanoic acid (PFTTrDA)	24.5	0.99	ng/L	23.7		103	49-148			
Perfluorotetradecanoic acid (PFTeDA)	24.2	0.99	ng/L	23.7		102	47-161			
Perfluorobutanesulfonic acid (PFBS)	21.3	0.99	ng/L	21.1		101	62-144			
Perfluoropentanesulfonic acid (PFPeS)	23.1	0.99	ng/L	22.3		103	59-151			
Perfluorohexanesulfonic acid (PFHxS)	21.9	0.99	ng/L	21.7		101	57-146			
Perfluoroheptanesulfonic acid (PFHpS)	22.5	0.99	ng/L	22.6		99.7	55-152			
Perfluorooctanesulfonic acid (PFOS)	21.1	0.99	ng/L	22.0		95.8	58-149			
Perfluorononanesulfonic acid (PFNS)	22.1	0.99	ng/L	22.8		96.9	52-148			
Perfluorodecanesulfonic acid (PFDS)	21.4	0.99	ng/L	22.9		93.7	51-147			
Perfluorododecanesulfonic acid (PFDoS)	21.6	0.99	ng/L	23.0		93.8	36-145			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	93.2	4.0	ng/L	89.0		105	67-146			
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	96.2	4.0	ng/L	90.1		107	61-151			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	104	4.0	ng/L	91.3		113	63-152			
Perfluorooctanesulfonamide (PFOSA)	25.2	0.99	ng/L	23.7		106	61-148			
N-methyl perfluorooctanesulfonamide (NMeFOA)	21.4	0.99	ng/L	23.7		90.2	63-145			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B349995 - Draft Method 1633
LCS (B349995-BS1)

Prepared: 08/31/23 Analyzed: 09/05/23

N-ethyl perfluorooctanesulfonamide (NEtFOSA)	20.5	0.99	ng/L	23.7		86.4	65-139			
N-MeFOSAA (NMeFOSAA)	23.1	0.99	ng/L	23.7		97.5	58-144			
N-EtFOSAA (NEtFOSAA)	26.7	0.99	ng/L	23.7		112	59-146			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	246	9.9	ng/L	237		104	71-136			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	253	9.9	ng/L	237		107	69-137			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	95.0	4.0	ng/L	94.9		100	63-144			
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	80.3	4.0	ng/L	89.5		89.7	68-146			
9Cl-PF3ONS (F53B Minor)	90.0	4.0	ng/L	89.0		101	56-156			
11Cl-PF3OUdS (F53B Major)	87.1	4.0	ng/L	89.5		97.3	46-156			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	211	9.9	ng/L	237		89.1	62-129			
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	1070	49	ng/L	1190		90.5	63-134			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	1060	49	ng/L	1190		89.5	50-138			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	40.0	2.0	ng/L	42.2		94.8	56-151			
Perfluoro-3-methoxypropanoic acid (PFMPA)	43.8	2.0	ng/L	47.4		92.3	51-145			
Perfluoro-4-methoxybutanoic acid (PFMBA)	43.8	2.0	ng/L	47.4		92.3	55-148			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	49.7	2.0	ng/L	47.4		105	48-161			
Surrogate: 13C4-PFBA	66.0		ng/L	98.8		66.8	10-130			
Surrogate: 13C5-PFPeA	34.1		ng/L	49.4		68.9	35-150			
Surrogate: 13C5-PFHxA	16.8		ng/L	24.7		68.0	55-150			
Surrogate: 13C4-PFHpA	15.6		ng/L	24.7		63.3	55-150			
Surrogate: 13C8-PFOA	16.1		ng/L	24.7		65.2	60-140			
Surrogate: 13C9-PFNA	8.54		ng/L	12.4		69.2	55-140			
Surrogate: 13C6-PFDA	8.36		ng/L	12.4		67.7	50-140			
Surrogate: 13C7-PFUnA	8.60		ng/L	12.4		69.6	30-140			
Surrogate: 13C2-PFDoA	7.91		ng/L	12.4		64.0	10-150			
Surrogate: 13C2-PFTeDA	7.68		ng/L	12.4		62.2	10-130			
Surrogate: 13C3-PFBS	16.8		ng/L	24.7		68.1	55-150			
Surrogate: 13C3-PFHxS	16.4		ng/L	24.7		66.3	55-150			
Surrogate: 13C8-PFOS	16.8		ng/L	24.7		68.2	45-140			
Surrogate: 13C2-4:2FTS	30.5		ng/L	49.4		61.7	60-200			
Surrogate: 13C2-6:2FTS	34.4		ng/L	49.4		69.7	60-200			
Surrogate: 13C2-8:2FTS	35.9		ng/L	49.4		72.7	50-200			
Surrogate: 13C8-PFOSA	14.5		ng/L	24.7		58.6	30-130			
Surrogate: D3-NMeFOSA	12.8		ng/L	24.7		51.7	15-130			
Surrogate: D5-NEtFOSA	13.2		ng/L	24.7		53.6	10-130			
Surrogate: D3-NMeFOSAA	30.3		ng/L	49.4		61.2	45-200			
Surrogate: D5-NEtFOSAA	29.1		ng/L	49.4		58.9	10-200			
Surrogate: D7-NMeFOSE	152		ng/L	247		61.4	10-150			
Surrogate: D9-NEtFOSE	141		ng/L	247		56.9	10-150			
Surrogate: 13C3-HFPO-DA	67.4		ng/L	98.8		68.2	25-160			

MRL Check (B349995-MRL1)

Prepared: 08/31/23 Analyzed: 09/05/23

Perfluorobutanoic acid (PFBA)	7.45	3.9	ng/L	7.83		95.2	44-157			
Perfluoropentanoic acid (PFPeA)	3.43	2.0	ng/L	3.91		87.8	57-148			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B349995 - Draft Method 1633
MRL Check (B349995-MRL1)

Prepared: 08/31/23 Analyzed: 09/05/23

Perfluorohexanoic acid (PFHxA)	1.73	0.98	ng/L	1.96		88.4	62-149			
Perfluoroheptanoic acid (PFHpA)	1.73	0.98	ng/L	1.96		88.6	56-150			
Perfluorooctanoic acid (PFOA)	1.41	0.98	ng/L	1.96		72.0	57-161			
Perfluorononanoic acid (PFNA)	1.46	0.98	ng/L	1.96		74.8	53-157			
Perfluorodecanoic acid (PFDA)	1.83	0.98	ng/L	1.96		93.6	43-158			
Perfluoroundecanoic acid (PFUnA)	1.53	0.98	ng/L	1.96		78.1	50-155			
Perfluorododecanoic acid (PFDoA)	1.61	0.98	ng/L	1.96		82.0	60-141			
Perfluorotridecanoic acid (PFTrDA)	1.56	0.98	ng/L	1.96		79.5	52-140			
Perfluorotetradecanoic acid (PFTeDA)	1.61	0.98	ng/L	1.96		82.5	52-156			
Perfluorobutanesulfonic acid (PFBS)	1.38	0.98	ng/L	1.74		79.7	63-145			
Perfluoropentanesulfonic acid (PFPeS)	1.55	0.98	ng/L	1.84		84.2	58-144			
Perfluorohexanesulfonic acid (PFHxS)	1.60	0.98	ng/L	1.79		89.2	44-158			
Perfluoroheptanesulfonic acid (PFHpS)	1.50	0.98	ng/L	1.86		80.4	51-150			
Perfluorooctanesulfonic acid (PFOS)	1.54	0.98	ng/L	1.81		84.6	43-162			
Perfluorononanesulfonic acid (PFNS)	1.40	0.98	ng/L	1.88		74.1	46-151			
Perfluorodecanesulfonic acid (PFDS)	1.34	0.98	ng/L	1.89		70.8	50-144			
Perfluorododecanesulfonic acid (PFDoS)	1.50	0.98	ng/L	1.90		79.2	30-138			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	6.34	3.9	ng/L	7.34		86.4	52-158			Z-01
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	6.39	3.9	ng/L	7.44		85.9	48-158			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	6.86	3.9	ng/L	7.53		91.0	46-165			
Perfluorooctanesulfonamide (PFOSA)	1.69	0.98	ng/L	1.96		86.6	47-163			
N-methyl perfluorooctanesulfonamide (NMeFOSA)	1.57	0.98	ng/L	1.96		80.2	54-155			
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	1.41	0.98	ng/L	1.96		72.0	49-156			
N-MeFOSAA (NMeFOSAA)	1.44	0.98	ng/L	1.96		73.6	32-160			
N-EtFOSAA (NEtFOSAA)	2.05	0.98	ng/L	1.96		105	51-154			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	16.6	9.8	ng/L	19.6		84.8	56-151			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	18.0	9.8	ng/L	19.6		91.8	60-147			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	6.41	3.9	ng/L	7.83		81.9	58-154			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	5.57	3.9	ng/L	7.39		75.4	61-148			
9Cl-PF3ONS (F53B Minor)	6.23	3.9	ng/L	7.34		84.9	44-167			
11Cl-PF3OUDS (F53B Major)	6.09	3.9	ng/L	7.39		82.4	36-158			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	14.2	9.8	ng/L	19.6		72.7	32-161			
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	74.5	49	ng/L	97.8		76.1	39-156			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	74.3	49	ng/L	97.8		75.9	36-149			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	3.00	2.0	ng/L	3.48		86.1	56-144			
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.46	2.0	ng/L	3.91		88.3	48-150			
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.38	2.0	ng/L	3.91		86.3	49-154			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.99	2.0	ng/L	3.91		102	47-160			
Surrogate: 13C4-PFBA	70.8		ng/L	97.8		72.4	10-130			
Surrogate: 13C5-PFPeA	36.4		ng/L	48.9		74.4	35-150			
Surrogate: 13C5-PFHxA	17.5		ng/L	24.5		71.6	55-150			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B349995 - Draft Method 1633
MRL Check (B349995-MRL1)

Prepared: 08/31/23 Analyzed: 09/05/23

Surrogate: 13C4-PFHpA	16.7		ng/L	24.5		68.4	55-150			
Surrogate: 13C8-PFOA	17.0		ng/L	24.5		69.7	60-140			
Surrogate: 13C9-PFNA	9.04		ng/L	12.2		73.9	55-140			
Surrogate: 13C6-PFDA	8.84		ng/L	12.2		72.3	50-140			
Surrogate: 13C7-PFUnA	9.07		ng/L	12.2		74.2	30-140			
Surrogate: 13C2-PFDoA	8.04		ng/L	12.2		65.8	10-150			
Surrogate: 13C2-PFTeDA	7.72		ng/L	12.2		63.1	10-130			
Surrogate: 13C3-PFBS	17.5		ng/L	24.5		71.4	55-150			
Surrogate: 13C3-PFHxS	16.8		ng/L	24.5		68.5	55-150			
Surrogate: 13C8-PFOS	17.6		ng/L	24.5		71.8	45-140			
Surrogate: 13C2-4:2FTS	29.0		ng/L	48.9		59.3	* 60-200			Z-01
Surrogate: 13C2-6:2FTS	30.6		ng/L	48.9		62.6	60-200			
Surrogate: 13C2-8:2FTS	31.0		ng/L	48.9		63.4	50-200			
Surrogate: 13C8-PFOSA	15.2		ng/L	24.5		62.1	30-130			
Surrogate: D3-NMeFOSA	14.6		ng/L	24.5		59.8	15-130			
Surrogate: D5-NEtFOSA	15.8		ng/L	24.5		64.6	10-130			
Surrogate: D3-NMeFOSAA	30.1		ng/L	48.9		61.4	45-200			
Surrogate: D5-NEtFOSAA	28.8		ng/L	48.9		58.8	10-200			
Surrogate: D7-NMeFOSE	166		ng/L	245		67.8	10-150			
Surrogate: D9-NEtFOSE	154		ng/L	245		63.0	10-150			
Surrogate: 13C3-HFPO-DA	73.1		ng/L	97.8		74.8	25-160			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B350256 - Draft Method 1633

Blank (B350256-BLK1)

Prepared & Analyzed: 08/26/23

Total Suspended Solids	ND	5.0	mg/L
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LCS (B350256-BS1)

Prepared & Analyzed: 08/26/23

Total Suspended Solids	170	5.0	mg/L	200	85.0	64.1-125
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-02	Gross violation of holding time. Analysis performed after 2X the allowable holding time.
Z-01	Extracted internal standard outside of control limits. Analyte is a known difficult compound.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>Draft Method 1633 in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
Perfluorobutanoic acid (PFBA)	NH-P,NY,PA,WV
Perfluoropentanoic acid (PFPeA)	NH-P,NY,PA,WV
Perfluorohexanoic acid (PFHxA)	NH-P,NY,PA,WV
Perfluoroheptanoic acid (PFHpA)	NH-P,NY,PA,WV
Perfluorooctanoic acid (PFOA)	NH-P,NY,PA,WV
Perfluorononanoic acid (PFNA)	NH-P,NY,PA,WV
Perfluorodecanoic acid (PFDA)	NH-P,NY,PA,WV
Perfluoroundecanoic acid (PFUnA)	NH-P,NY,PA,WV
Perfluorododecanoic acid (PFDoA)	NH-P,NY,PA,WV
Perfluorotridecanoic acid (PFTrDA)	NH-P,NY,PA,WV
Perfluorotetradecanoic acid (PFTeDA)	NH-P,NY,PA,WV
Perfluorobutanesulfonic acid (PFBS)	NH-P,NY,PA,WV
Perfluoropentanesulfonic acid (PFPeS)	NH-P,NY,PA,WV
Perfluorohexanesulfonic acid (PFHxS)	NH-P,NY,PA,WV
Perfluoroheptanesulfonic acid (PFHpS)	NH-P,NY,PA,WV
Perfluorooctanesulfonic acid (PFOS)	NH-P,NY,PA,WV
Perfluorononanesulfonic acid (PFNS)	NH-P,PA,WV
Perfluorodecanesulfonic acid (PFDS)	NH-P,PA,WV
Perfluorododecanesulfonic acid (PFDoS)	NH-P,PA,WV
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	NH-P,PA,WV
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	NH-P,NY,PA,WV
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	NH-P,NY,PA,WV
Perfluorooctanesulfonamide (PFOSA)	NH-P,PA,WV
N-methyl perfluorooctanesulfonamide (NMeFOSA)	NH-P,PA,WV
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	NH-P,PA,WV
N-MeFOSAA (NMeFOSAA)	NH-P,NY,PA,WV
N-EtFOSAA (NEtFOSAA)	NH-P,NY,PA,WV
N-methylperfluorooctanesulfonamidoethanol(NMeFOSE)	NH-P,PA,WV
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	NH-P,PA,WV
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,NY,PA,WV
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,NY,PA,WV
9Cl-PF3ONS (F53B Minor)	NH-P,NY,PA,WV
11Cl-PF3OUdS (F53B Major)	NH-P,NY,PA,WV
3-Perfluoropropyl propanoic acid (FPrPA)(3:3FTCA)	NH-P,PA,WV
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	NH-P,PA,WV
3-Perfluoroheptyl propanoic acid (FHpPA)(7:3FTCA)	NH-P,PA,WV
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	NH-P,NY,PA,WV
Perfluoro-3-methoxypropanoic acid (PFMPA)	NH-P,NY,PA,WV
Perfluoro-4-methoxybutanoic acid (PFMBA)	NH-P,PA,WV
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH-P,PA,WV

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2024
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
RI	Rhode Island Department of Health	LAO00373	12/30/2023
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2023
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2024
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2024
WV	West Virginia DEP Division of Water and Waste Management	419	08/31/2024

1 of 2 COOLERS



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	DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client Ramboll
 Project Claremont Polychemical Site
 MCP/RCP Required NIA
 Deliverable Package Requirement NIA
 Location Old Bethpage, New York
 PWSID# (When Applicable) NIA
 Arrival Method:
 Courier ☐ Fed Ex ☒ Walk In ☐ Other ☐
 Received By / Date / Time AAM/8-8-23/0941
 Back-Sheet By / Date / Time AAM/8-8-23/1428
 Temperature Method Temp Gun # 5
 Temp ☒ < 6° C Actual Temperature 4.0/5.2°
 Rush Samples: Yes / No Notify _____
 Short Hold: Yes / No Notify _____

Notes regarding Samples/COC outside of SOP:

PFAS 1633 was split from
work order

Login Sample Receipt Checklist – (Rejection Criteria Listing
 – Using Acceptance Policy) Any False statement will be
 brought to the attention of the Client – True or False

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Splitting Samples Required	☒	☐
MS/MSD	☐	☒
Trip Blanks	☐	☒
Lab to Filters	☐	☒
COC Legible	☒	☐
COC Included: (Check all included)		
Client ☒	Analysis ☒	Sampler Name ☐
Project ☒	IDs ☒	Collection Date/Time ☒
All Samples Proper pH: <u>N/A</u> ☐ ☐		

Additional Container Notes

**Note: West Virginia requires all samples to have their
 temperature taken. Note any outliers.**

Sample	Soils Jars				Ambers				Plastics							VOA Vials					Other / Fill in				
	(Circle Amb/Clear)				1 Liter				250mL				500mL			Unpreserved					Col/Bact				
1	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	Unpreserved	HCL	Sulfuric	Phosphoric	HCL	Unpreserved	Sulfuric	100mL	Unpreserved	Sulfuric	1 Liter	Unpreserved	Sulfuric	500mL	Unpreserved	Trizma	Sulfuric	Nitric	NaOH	Ammonium Acetate	NaOH/Zinc
2																									
3																									
4																									
5																									
6																									
7																									
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18																									
19																									
20																									

	DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist
	Effective Date: 07/13/2023

August 30, 2023

Payson Long
NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221

Project Location: Old Bethpage, New York
Client Job Number:
Project Number: 130015
Laboratory Work Order Number: 23H1198

Enclosed are results of analyses for samples as received by the laboratory on August 8, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kyle A. Murray
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221
ATTN: Payson Long

REPORT DATE: 8/30/2023

PURCHASE ORDER NUMBER: 144165

PROJECT NUMBER: 130015

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23H1198

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Old Bethpage, New York

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
PD-CP-00-080723	23H1198-01	Ground Water		SW-846 8260D	
				SW-846 8270E	
PD-CP-01-080723	23H1198-02	Ground Water		SW-846 8260D	
				SW-846 8270E	
ASF-CP-00-080723	23H1198-03	Ground Water		SW-846 8270E	
ASF-CP-01-080723	23H1198-04	Ground Water		SW-846 8270E	
TB-080723	23H1198-05	Trip Blank Water		SW-846 8260D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8260D

Qualifications:**L-04**

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**Carbon Disulfide**

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], 23H1198-05[TB-080723], B348658-BLK1, B348658-BS1, B348658-BSD1, S091841-CCV1

Chloroethane

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], 23H1198-05[TB-080723], B348658-BLK1, B348658-BS1, B348658-BSD1, S091841-CCV1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:**trans-1,4-Dichloro-2-butene**

B348658-BSD1

MS-07A

Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:**1,2,3-Trichlorobenzene**

B348658-MS1, B348658-MSD1

1,2,4-Trichlorobenzene

B348658-MS1, B348658-MSD1

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:**Bromoform**

B348658-MS1, B348658-MSD1

Naphthalene

B348658-MS1, B348658-MSD1

trans-1,4-Dichloro-2-butene

B348658-MS1, B348658-MSD1

MS-12

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:**Bromomethane**

B348658-MS1, B348658-MSD1

MS-24

Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

B348658-MSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:**Bromoform**

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], 23H1198-05[TB-080723], B348658-BLK1, B348658-BS1, B348658-BSD1, S091841-CCV1

Naphthalene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], 23H1198-05[TB-080723], B348658-BLK1, B348658-BS1, B348658-BSD1, S091841-CCV1

trans-1,4-Dichloro-2-butene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], 23H1198-05[TB-080723], B348658-BLK1, B348658-BS1, B348658-BSD1, S091841-CCV1

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V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**Bromochloromethane**

S091841-CCV1

Bromomethane

S091841-CCV1

Hexachlorobutadiene

S091841-CCV1

SW-846 8270E

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**1,2,4-Trichlorobenzene**

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

1,2-Dichlorobenzene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

1,3-Dichlorobenzene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

1,4-Dichlorobenzene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Hexachlorobutadiene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Hexachlorocyclopentadiene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Hexachloroethane

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Naphthalene23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:**Pyridine**B348928-BS1

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:**2,4-Dinitrophenol**

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Benzidine

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Benzoic Acid

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Hexachlorobutadiene

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1

Pyridine

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BSD1

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V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:**2,4-Dinitrophenol**

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

4,6-Dinitro-2-methylphenol

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

Benzidine

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

Bis(2-Ethylhexyl)phthalate

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

Di-n-octylphthalate

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:**4-Nitrophenol**

B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092215-CCV1

Aniline

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

Benzidine

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

Benzoic Acid

B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:**Bis(2-chloroisopropyl)ether**

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

Di-n-octylphthalate

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], S092745-CCV1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:**Benzidine**

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

Butylbenzylphthalate

23H1198-01[PD-CP-00-080723], 23H1198-02[PD-CP-01-080723], B348928-BLK1, B348928-BS1, B348928-BSD1, S092151-CCV1, S092198-CCV1, S092215-CCV1, S092745-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1198-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Bromoform	ND	1.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Carbon Disulfide	ND	5.0	µg/L	1	L-04	SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Chloroethane	ND	2.0	µg/L	1	L-04	SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1198-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 19:12	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 19:12	MFF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	108	70-130							
Toluene-d8	97.2	70-130							
4-Bromofluorobenzene	81.9	70-130							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1198-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Acenaphthylene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Acetophenone	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Aniline	ND	18	µg/L	1	V-05	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Anthracene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Benzidine	ND	18	µg/L	1	R-05, V-04, V-05, V-35	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Benzo(a)anthracene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Benzo(a)pyrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Benzo(b)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Benzo(g,h,i)perylene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Benzo(k)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Benzoic Acid	ND	18	µg/L	1	R-05	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Bis(2-chloroethoxy)methane	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Bis(2-chloroethyl)ether	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Bis(2-chloroisopropyl)ether	ND	9.0	µg/L	1	V-06	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.0	µg/L	1	V-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
4-Bromophenylphenylether	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Butylbenzylphthalate	ND	9.0	µg/L	1	V-35	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Carbazole	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
4-Chloroaniline	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
4-Chloro-3-methylphenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2-Chloronaphthalene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2-Chlorophenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
4-Chlorophenylphenylether	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Chrysene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Dibenz(a,h)anthracene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Dibenzofuran	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Di-n-butylphthalate	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
1,2-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
1,3-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
1,4-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
3,3-Dichlorobenzidine	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2,4-Dichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Diethylphthalate	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2,4-Dimethylphenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Dimethylphthalate	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
4,6-Dinitro-2-methylphenol	ND	18	µg/L	1	V-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2,4-Dinitrophenol	ND	9.0	µg/L	1	R-05, V-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2,4-Dinitrotoluene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2,6-Dinitrotoluene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Di-n-octylphthalate	ND	9.0	µg/L	1	V-04, V-06	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1198-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Fluorene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Hexachlorobenzene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Hexachlorobutadiene	ND	9.0	µg/L	1	L-04, R-05	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Hexachlorocyclopentadiene	ND	9.0	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Hexachloroethane	ND	9.0	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Indeno(1,2,3-cd)pyrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Isophorone	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
1-Methylnaphthalene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2-Methylnaphthalene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2-Methylphenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
3/4-Methylphenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Naphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
3-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
4-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Nitrobenzene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2-Nitrophenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
4-Nitrophenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
N-Nitrosodimethylamine	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
N-Nitrosodi-n-propylamine	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Pentachloronitrobenzene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Pentachlorophenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Phenanthrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Phenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Pyrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
Pyridine	ND	18	µg/L	1	R-05	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
1,2,4-Trichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2,4,5-Trichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL
2,4,6-Trichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	8/14/23	8/29/23 12:53	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	51.2	15-110	
Phenol-d6	33.8	15-110	
Nitrobenzene-d5	77.6	30-130	
2-Fluorobiphenyl	75.0	30-130	
2,4,6-Tribromophenol	81.3	15-110	
p-Terphenyl-d14	93.4	30-130	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-00-080723

Sampled: 8/7/2023 12:30

Sample ID: 23H1198-01

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	20	0.19	µg/L	1		SW-846 8270E	8/9/23	8/15/23 14:54	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	27.8	15-110						8/15/23 14:54	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1198-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Bromoform	ND	1.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Carbon Disulfide	ND	5.0	µg/L	1	L-04	SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Chloroethane	ND	2.0	µg/L	1	L-04	SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1198-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 21:25	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 21:25	MFF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	114	70-130							
Toluene-d8	99.6	70-130							
4-Bromofluorobenzene	80.8	70-130							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1198-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Acenaphthylene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Acetophenone	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Aniline	ND	18	µg/L	1	V-05	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Anthracene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Benzidine	ND	18	µg/L	1	R-05, V-04, V-05, V-35	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Benzo(a)anthracene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Benzo(a)pyrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Benzo(b)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Benzo(g,h,i)perylene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Benzo(k)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Benzoic Acid	ND	18	µg/L	1	R-05	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Bis(2-chloroethoxy)methane	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Bis(2-chloroethyl)ether	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Bis(2-chloroisopropyl)ether	ND	9.1	µg/L	1	V-06	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.1	µg/L	1	V-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
4-Bromophenylphenylether	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Butylbenzylphthalate	ND	9.1	µg/L	1	V-35	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Carbazole	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
4-Chloroaniline	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
4-Chloro-3-methylphenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2-Chloronaphthalene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2-Chlorophenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
4-Chlorophenylphenylether	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Chrysene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Dibenz(a,h)anthracene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Dibenzofuran	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Di-n-butylphthalate	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
1,2-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
1,3-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
1,4-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
3,3-Dichlorobenzidine	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2,4-Dichlorophenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Diethylphthalate	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2,4-Dimethylphenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Dimethylphthalate	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
4,6-Dinitro-2-methylphenol	ND	18	µg/L	1	V-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2,4-Dinitrophenol	ND	9.1	µg/L	1	R-05, V-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2,4-Dinitrotoluene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2,6-Dinitrotoluene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Di-n-octylphthalate	ND	9.1	µg/L	1	V-04, V-06	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1198-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Fluorene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Hexachlorobenzene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Hexachlorobutadiene	ND	9.1	µg/L	1	L-04, R-05	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Hexachlorocyclopentadiene	ND	9.1	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Hexachloroethane	ND	9.1	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Indeno(1,2,3-cd)pyrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Isophorone	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
1-Methylnaphthalene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2-Methylnaphthalene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2-Methylphenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
3/4-Methylphenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Naphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2-Nitroaniline	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
3-Nitroaniline	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
4-Nitroaniline	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Nitrobenzene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2-Nitrophenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
4-Nitrophenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
N-Nitrosodimethylamine	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
N-Nitrosodi-n-propylamine	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Pentachloronitrobenzene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Pentachlorophenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Phenanthrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Phenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Pyrene	ND	4.5	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
Pyridine	ND	18	µg/L	1	R-05	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
1,2,4-Trichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2,4,5-Trichlorophenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL
2,4,6-Trichlorophenol	ND	9.1	µg/L	1		SW-846 8270E	8/14/23	8/29/23 13:14	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	51.6	15-110	
Phenol-d6	32.7	15-110	
Nitrobenzene-d5	70.3	30-130	
2-Fluorobiphenyl	71.0	30-130	
2,4,6-Tribromophenol	74.0	15-110	
p-Terphenyl-d14	85.1	30-130	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: PD-CP-01-080723

Sampled: 8/7/2023 12:45

Sample ID: 23H1198-02

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	20	0.19	µg/L	1		SW-846 8270E	8/9/23	8/23/23 16:22	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	30.0	15-110						8/23/23 16:22	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: ASF-CP-00-080723

Sampled: 8/7/2023 13:20

Sample ID: 23H1198-03

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	20	0.20	µg/L	1		SW-846 8270E	8/9/23	8/23/23 16:41	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	30.0	15-110						8/23/23 16:41	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: ASF-CP-01-080723

Sampled: 8/7/2023 13:35

Sample ID: 23H1198-04

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	20	0.20	µg/L	1		SW-846 8270E	8/9/23	8/24/23 9:30	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	30.8	15-110						8/24/23 9:30	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: TB-080723

Sampled: 8/7/2023 13:45

Sample ID: 23H1198-05

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Bromoform	ND	1.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Carbon Disulfide	ND	5.0	µg/L	1	L-04	SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Chloroethane	ND	2.0	µg/L	1	L-04	SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23H1198

Date Received: 8/8/2023

Field Sample #: TB-080723

Sampled: 8/7/2023 13:45

Sample ID: 23H1198-05

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260D	8/10/23	8/10/23 17:52	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	8/10/23	8/10/23 17:52	MFF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	113	70-130							
Toluene-d8	103	70-130							
4-Bromofluorobenzene	78.2	70-130							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**Sample Extraction Data****Prep Method:SW-846 5030B Analytical Method:SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23H1198-01 [PD-CP-00-080723]	B348658	5	5.00	08/10/23
23H1198-02 [PD-CP-01-080723]	B348658	5	5.00	08/10/23
23H1198-05 [TB-080723]	B348658	5	5.00	08/10/23

Prep Method:SW-846 3510C Analytical Method:SW-846 8270E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23H1198-01 [PD-CP-00-080723]	B348480	1040	1.00	08/09/23
23H1198-02 [PD-CP-01-080723]	B348480	1040	1.00	08/09/23
23H1198-03 [ASF-CP-00-080723]	B348480	1020	1.00	08/09/23
23H1198-04 [ASF-CP-01-080723]	B348480	1020	1.00	08/09/23

Prep Method:SW-846 3510C Analytical Method:SW-846 8270E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23H1198-01 [PD-CP-00-080723]	B348928	111	1.00	08/14/23
23H1198-02 [PD-CP-01-080723]	B348928	110	1.00	08/14/23

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348658 - SW-846 5030B										
Blank (B348658-BLK1)				Prepared & Analyzed: 08/10/23						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							V-05
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							L-04
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							L-04
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							V-05
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348658 - SW-846 5030B										
Blank (B348658-BLK1)										
Prepared & Analyzed: 08/10/23										
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	28.0		µg/L	25.0		112	70-130			
Surrogate: Toluene-d8	24.9		µg/L	25.0		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	20.6		µg/L	25.0		82.4	70-130			
LCS (B348658-BS1)										
Prepared & Analyzed: 08/10/23										
Acetone	176	50	µg/L	200		87.8	70-160			†
Acrylonitrile	19.0	5.0	µg/L	20.0		95.2	70-130			
tert-Amyl Methyl Ether (TAME)	17.2	0.50	µg/L	20.0		85.8	70-130			
Benzene	18.9	1.0	µg/L	20.0		94.4	70-130			
Bromobenzene	17.8	1.0	µg/L	20.0		88.8	70-130			
Bromochloromethane	21.0	1.0	µg/L	20.0		105	70-130			
Bromodichloromethane	19.3	0.50	µg/L	20.0		96.4	70-130			
Bromoform	15.8	1.0	µg/L	20.0		79.0	70-130			V-05
Bromomethane	11.2	2.0	µg/L	20.0		55.8	40-160			†
2-Butanone (MEK)	199	20	µg/L	200		99.4	40-160			†
tert-Butyl Alcohol (TBA)	157	20	µg/L	200		78.6	40-160			†
n-Butylbenzene	18.8	1.0	µg/L	20.0		93.9	70-130			
sec-Butylbenzene	19.6	1.0	µg/L	20.0		97.8	70-130			
tert-Butylbenzene	17.5	1.0	µg/L	20.0		87.5	70-130			
tert-Butyl Ethyl Ether (TBEE)	18.6	0.50	µg/L	20.0		93.0	70-130			
Carbon Disulfide	11.2	5.0	µg/L	20.0		55.9 *	70-130			L-04
Carbon Tetrachloride	15.9	5.0	µg/L	20.0		79.6	70-130			
Chlorobenzene	17.8	1.0	µg/L	20.0		89.2	70-130			
Chlorodibromomethane	17.5	0.50	µg/L	20.0		87.7	70-130			
Chloroethane	12.8	2.0	µg/L	20.0		63.8 *	70-130			L-04
Chloroform	19.3	2.0	µg/L	20.0		96.3	70-130			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348658 - SW-846 5030B										
LCS (B348658-BS1)				Prepared & Analyzed: 08/10/23						
Chloromethane	10.0	2.0	µg/L	20.0		50.2	40-160			†
2-Chlorotoluene	18.4	1.0	µg/L	20.0		92.1	70-130			
4-Chlorotoluene	17.7	1.0	µg/L	20.0		88.6	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	16.7	5.0	µg/L	20.0		83.5	70-130			
1,2-Dibromoethane (EDB)	18.8	0.50	µg/L	20.0		94.2	70-130			
Dibromomethane	18.1	1.0	µg/L	20.0		90.4	70-130			
1,2-Dichlorobenzene	19.3	1.0	µg/L	20.0		96.5	70-130			
1,3-Dichlorobenzene	19.3	1.0	µg/L	20.0		96.4	70-130			
1,4-Dichlorobenzene	18.6	1.0	µg/L	20.0		92.8	70-130			
trans-1,4-Dichloro-2-butene	14.1	2.0	µg/L	20.0		70.4	70-130			V-05
Dichlorodifluoromethane (Freon 12)	13.6	2.0	µg/L	20.0		68.0	40-160			†
1,1-Dichloroethane	19.5	1.0	µg/L	20.0		97.4	70-130			
1,2-Dichloroethane	17.9	1.0	µg/L	20.0		89.5	70-130			
1,1-Dichloroethylene	16.3	1.0	µg/L	20.0		81.4	70-130			
cis-1,2-Dichloroethylene	18.9	1.0	µg/L	20.0		94.7	70-130			
trans-1,2-Dichloroethylene	15.9	1.0	µg/L	20.0		79.4	70-130			
1,2-Dichloropropane	19.0	1.0	µg/L	20.0		95.2	70-130			
1,3-Dichloropropane	18.7	0.50	µg/L	20.0		93.6	70-130			
2,2-Dichloropropane	16.7	1.0	µg/L	20.0		83.4	40-130			†
1,1-Dichloropropene	17.1	2.0	µg/L	20.0		85.4	70-130			
cis-1,3-Dichloropropene	17.7	0.50	µg/L	20.0		88.3	70-130			
trans-1,3-Dichloropropene	19.3	0.50	µg/L	20.0		96.6	70-130			
Diethyl Ether	19.5	2.0	µg/L	20.0		97.4	70-130			
Diisopropyl Ether (DIPE)	21.8	0.50	µg/L	20.0		109	70-130			
1,4-Dioxane	146	50	µg/L	200		73.2	40-130			†
Ethylbenzene	18.0	1.0	µg/L	20.0		90.2	70-130			
Hexachlorobutadiene	20.6	0.60	µg/L	20.0		103	70-130			
2-Hexanone (MBK)	173	10	µg/L	200		86.6	70-160			†
Isopropylbenzene (Cumene)	17.1	1.0	µg/L	20.0		85.4	70-130			
p-Isopropyltoluene (p-Cymene)	18.3	1.0	µg/L	20.0		91.3	70-130			
Methyl Acetate	19.4	1.0	µg/L	20.0		97.0	70-130			
Methyl tert-Butyl Ether (MTBE)	17.3	1.0	µg/L	20.0		86.4	70-130			
Methyl Cyclohexane	16.5	1.0	µg/L	20.0		82.3	70-130			
Methylene Chloride	17.4	5.0	µg/L	20.0		87.2	70-130			
4-Methyl-2-pentanone (MIBK)	175	10	µg/L	200		87.5	70-160			†
Naphthalene	12.5	2.0	µg/L	20.0		62.6	40-130			V-05 †
n-Propylbenzene	17.7	1.0	µg/L	20.0		88.6	70-130			
Styrene	17.0	1.0	µg/L	20.0		84.8	70-130			
1,1,1,2-Tetrachloroethane	18.5	1.0	µg/L	20.0		92.6	70-130			
1,1,2,2-Tetrachloroethane	19.2	0.50	µg/L	20.0		96.0	70-130			
Tetrachloroethylene	17.3	1.0	µg/L	20.0		86.4	70-130			
Tetrahydrofuran	17.9	10	µg/L	20.0		89.4	70-130			
Toluene	17.8	1.0	µg/L	20.0		89.0	70-130			
1,2,3-Trichlorobenzene	15.0	5.0	µg/L	20.0		75.2	70-130			
1,2,4-Trichlorobenzene	14.7	1.0	µg/L	20.0		73.6	70-130			
1,3,5-Trichlorobenzene	18.7	1.0	µg/L	20.0		93.4	70-130			
1,1,1-Trichloroethane	18.6	1.0	µg/L	20.0		93.0	70-130			
1,1,2-Trichloroethane	20.1	1.0	µg/L	20.0		100	70-130			
Trichloroethylene	17.8	1.0	µg/L	20.0		89.2	70-130			
Trichlorofluoromethane (Freon 11)	15.9	2.0	µg/L	20.0		79.6	70-130			
1,2,3-Trichloropropane	17.5	2.0	µg/L	20.0		87.4	70-130			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348658 - SW-846 5030B										
LCS (B348658-BS1)										
Prepared & Analyzed: 08/10/23										
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	19.5	1.0	µg/L	20.0		97.4	70-130			
1,2,4-Trimethylbenzene	17.6	1.0	µg/L	20.0		88.2	70-130			
1,3,5-Trimethylbenzene	17.4	1.0	µg/L	20.0		86.8	70-130			
Vinyl Chloride	13.3	2.0	µg/L	20.0		66.6	40-160			†
m+p Xylene	33.9	2.0	µg/L	40.0		84.7	70-130			
o-Xylene	17.0	1.0	µg/L	20.0		84.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	27.0		µg/L	25.0		108	70-130			
Surrogate: Toluene-d8	26.1		µg/L	25.0		104	70-130			
Surrogate: 4-Bromofluorobenzene	23.2		µg/L	25.0		93.0	70-130			
LCS Dup (B348658-BSD1)										
Prepared & Analyzed: 08/10/23										
Acetone	166	50	µg/L	200		82.8	70-160	5.90	25	†
Acrylonitrile	18.3	5.0	µg/L	20.0		91.5	70-130	3.91	25	
tert-Amyl Methyl Ether (TAME)	16.6	0.50	µg/L	20.0		83.0	70-130	3.38	25	
Benzene	18.2	1.0	µg/L	20.0		90.8	70-130	3.94	25	
Bromobenzene	17.3	1.0	µg/L	20.0		86.6	70-130	2.62	25	
Bromochloromethane	21.2	1.0	µg/L	20.0		106	70-130	0.948	25	
Bromodichloromethane	18.7	0.50	µg/L	20.0		93.3	70-130	3.32	25	
Bromoform	15.4	1.0	µg/L	20.0		77.0	70-130	2.56	25	V-05
Bromomethane	12.1	2.0	µg/L	20.0		60.6	40-160	8.25	25	†
2-Butanone (MEK)	188	20	µg/L	200		94.2	40-160	5.31	25	†
tert-Butyl Alcohol (TBA)	140	20	µg/L	200		69.8	40-160	11.9	25	†
n-Butylbenzene	18.3	1.0	µg/L	20.0		91.4	70-130	2.75	25	
sec-Butylbenzene	19.6	1.0	µg/L	20.0		97.9	70-130	0.0511	25	
tert-Butylbenzene	17.3	1.0	µg/L	20.0		86.5	70-130	1.15	25	
tert-Butyl Ethyl Ether (TBEE)	17.9	0.50	µg/L	20.0		89.4	70-130	4.06	25	
Carbon Disulfide	10.1	5.0	µg/L	20.0		50.4	* 70-130	10.4	25	L-04
Carbon Tetrachloride	15.3	5.0	µg/L	20.0		76.4	70-130	4.23	25	
Chlorobenzene	17.6	1.0	µg/L	20.0		87.9	70-130	1.47	25	
Chlorodibromomethane	16.8	0.50	µg/L	20.0		84.2	70-130	4.07	25	
Chloroethane	12.6	2.0	µg/L	20.0		63.0	* 70-130	1.10	25	L-04
Chloroform	18.9	2.0	µg/L	20.0		94.4	70-130	1.94	25	
Chloromethane	9.43	2.0	µg/L	20.0		47.2	40-160	6.37	25	†
2-Chlorotoluene	17.2	1.0	µg/L	20.0		86.2	70-130	6.62	25	
4-Chlorotoluene	17.6	1.0	µg/L	20.0		87.9	70-130	0.850	25	
1,2-Dibromo-3-chloropropane (DBCP)	15.6	5.0	µg/L	20.0		78.0	70-130	6.75	25	
1,2-Dibromoethane (EDB)	18.1	0.50	µg/L	20.0		90.4	70-130	4.12	25	
Dibromomethane	17.7	1.0	µg/L	20.0		88.6	70-130	2.12	25	
1,2-Dichlorobenzene	19.0	1.0	µg/L	20.0		94.8	70-130	1.83	25	
1,3-Dichlorobenzene	19.4	1.0	µg/L	20.0		97.0	70-130	0.517	25	
1,4-Dichlorobenzene	18.5	1.0	µg/L	20.0		92.4	70-130	0.486	25	
trans-1,4-Dichloro-2-butene	12.8	2.0	µg/L	20.0		64.2	* 70-130	9.36	25	L-07, V-05
Dichlorodifluoromethane (Freon 12)	12.4	2.0	µg/L	20.0		61.8	40-160	9.47	25	†
1,1-Dichloroethane	19.0	1.0	µg/L	20.0		95.0	70-130	2.39	25	
1,2-Dichloroethane	17.7	1.0	µg/L	20.0		88.6	70-130	1.07	25	
1,1-Dichloroethylene	15.0	1.0	µg/L	20.0		75.2	70-130	7.86	25	
cis-1,2-Dichloroethylene	18.0	1.0	µg/L	20.0		90.1	70-130	4.98	25	
trans-1,2-Dichloroethylene	14.7	1.0	µg/L	20.0		73.4	70-130	7.79	25	
1,2-Dichloropropane	19.3	1.0	µg/L	20.0		96.4	70-130	1.25	25	
1,3-Dichloropropane	18.5	0.50	µg/L	20.0		92.4	70-130	1.24	25	
2,2-Dichloropropane	16.6	1.0	µg/L	20.0		83.0	40-130	0.541	25	†
1,1-Dichloropropene	16.4	2.0	µg/L	20.0		81.9	70-130	4.18	25	

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B348658 - SW-846 5030B
LCS Dup (B348658-BS1)

Prepared & Analyzed: 08/10/23

cis-1,3-Dichloropropene	17.2	0.50	µg/L	20.0		86.0	70-130	2.64	25	
trans-1,3-Dichloropropene	18.8	0.50	µg/L	20.0		93.9	70-130	2.89	25	
Diethyl Ether	17.8	2.0	µg/L	20.0		89.2	70-130	8.90	25	
Diisopropyl Ether (DIPE)	21.2	0.50	µg/L	20.0		106	70-130	2.65	25	
1,4-Dioxane	148	50	µg/L	200		74.2	40-130	1.34	50	† ‡
Ethylbenzene	17.1	1.0	µg/L	20.0		85.4	70-130	5.46	25	
Hexachlorobutadiene	19.8	0.60	µg/L	20.0		99.2	70-130	3.66	25	
2-Hexanone (MBK)	160	10	µg/L	200		79.9	70-160	7.98	25	†
Isopropylbenzene (Cumene)	16.6	1.0	µg/L	20.0		83.0	70-130	2.85	25	
p-Isopropyltoluene (p-Cymene)	18.1	1.0	µg/L	20.0		90.6	70-130	0.825	25	
Methyl Acetate	18.5	1.0	µg/L	20.0		92.4	70-130	4.86	25	
Methyl tert-Butyl Ether (MTBE)	16.9	1.0	µg/L	20.0		84.4	70-130	2.40	25	
Methyl Cyclohexane	15.6	1.0	µg/L	20.0		77.8	70-130	5.62	25	
Methylene Chloride	16.9	5.0	µg/L	20.0		84.7	70-130	2.85	25	
4-Methyl-2-pentanone (MIBK)	166	10	µg/L	200		82.9	70-160	5.44	25	†
Naphthalene	14.3	2.0	µg/L	20.0		71.3	40-130	12.9	25	V-05 †
n-Propylbenzene	17.3	1.0	µg/L	20.0		86.3	70-130	2.57	25	
Styrene	16.5	1.0	µg/L	20.0		82.7	70-130	2.45	25	
1,1,1,2-Tetrachloroethane	17.9	1.0	µg/L	20.0		89.6	70-130	3.35	25	
1,1,2,2-Tetrachloroethane	18.5	0.50	µg/L	20.0		92.3	70-130	3.98	25	
Tetrachloroethylene	16.7	1.0	µg/L	20.0		83.6	70-130	3.24	25	
Tetrahydrofuran	17.1	10	µg/L	20.0		85.7	70-130	4.17	25	
Toluene	17.3	1.0	µg/L	20.0		86.4	70-130	2.91	25	
1,2,3-Trichlorobenzene	15.6	5.0	µg/L	20.0		77.8	70-130	3.53	25	
1,2,4-Trichlorobenzene	15.2	1.0	µg/L	20.0		75.8	70-130	2.94	25	
1,3,5-Trichlorobenzene	18.2	1.0	µg/L	20.0		91.1	70-130	2.55	25	
1,1,1-Trichloroethane	18.2	1.0	µg/L	20.0		91.0	70-130	2.12	25	
1,1,2-Trichloroethane	19.8	1.0	µg/L	20.0		99.0	70-130	1.40	25	
Trichloroethylene	17.2	1.0	µg/L	20.0		86.2	70-130	3.48	25	
Trichlorofluoromethane (Freon 11)	15.1	2.0	µg/L	20.0		75.4	70-130	5.49	25	
1,2,3-Trichloropropane	21.0	2.0	µg/L	20.0		105	70-130	18.2	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	17.6	1.0	µg/L	20.0		88.2	70-130	9.86	25	
1,2,4-Trimethylbenzene	17.6	1.0	µg/L	20.0		87.8	70-130	0.512	25	
1,3,5-Trimethylbenzene	16.7	1.0	µg/L	20.0		83.4	70-130	4.05	25	
Vinyl Chloride	12.4	2.0	µg/L	20.0		61.9	40-160	7.24	25	†
m+p Xylene	32.8	2.0	µg/L	40.0		82.0	70-130	3.30	25	
o-Xylene	16.4	1.0	µg/L	20.0		81.8	70-130	3.78	25	
Surrogate: 1,2-Dichloroethane-d4	27.7		µg/L	25.0		111	70-130			
Surrogate: Toluene-d8	25.6		µg/L	25.0		103	70-130			
Surrogate: 4-Bromofluorobenzene	22.8		µg/L	25.0		91.0	70-130			

Matrix Spike (B348658-MS1)

Source: 23H1198-01

Prepared & Analyzed: 08/10/23

Acetone	92.9	50	µg/L	100	ND	92.9	70-130			
Acrylonitrile	8.48	5.0	µg/L	10.0	ND	84.8	70-130			
tert-Amyl Methyl Ether (TAME)	7.88	0.50	µg/L	10.0	ND	78.8	70-130			
Benzene	10.6	1.0	µg/L	10.0	ND	106	70-130			
Bromobenzene	8.24	1.0	µg/L	10.0	ND	82.4	70-130			
Bromochloromethane	11.5	1.0	µg/L	10.0	ND	115	70-130			
Bromodichloromethane	9.21	0.50	µg/L	10.0	ND	92.1	70-130			
Bromoform	6.94	1.0	µg/L	10.0	ND	69.4	* 70-130			MS-09
Bromomethane	15.9	2.0	µg/L	10.0	ND	159	* 70-130			MS-12
2-Butanone (MEK)	101	20	µg/L	100	ND	101	70-130			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348658 - SW-846 5030B										
Matrix Spike (B348658-MS1)	Source: 23H1198-01			Prepared & Analyzed: 08/10/23						
tert-Butyl Alcohol (TBA)	81.8	20	µg/L	100	ND	81.8	70-130			
n-Butylbenzene	8.63	1.0	µg/L	10.0	ND	86.3	70-130			
sec-Butylbenzene	8.37	1.0	µg/L	10.0	ND	83.7	70-130			
tert-Butylbenzene	7.95	1.0	µg/L	10.0	ND	79.5	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.18	0.50	µg/L	10.0	ND	91.8	70-130			
Carbon Disulfide	97.5	5.0	µg/L	100	ND	97.5	70-130			
Carbon Tetrachloride	9.33	5.0	µg/L	10.0	ND	93.3	70-130			
Chlorobenzene	9.35	1.0	µg/L	10.0	ND	93.5	70-130			
Chlorodibromomethane	8.00	0.50	µg/L	10.0	ND	80.0	70-130			
Chloroethane	9.80	2.0	µg/L	10.0	ND	98.0	70-130			
Chloroform	10.4	2.0	µg/L	10.0	ND	104	70-130			
Chloromethane	11.0	2.0	µg/L	10.0	ND	110	70-130			
2-Chlorotoluene	8.54	1.0	µg/L	10.0	ND	85.4	70-130			
4-Chlorotoluene	7.96	1.0	µg/L	10.0	ND	79.6	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	7.14	5.0	µg/L	10.0	ND	71.4	70-130			
1,2-Dibromoethane (EDB)	9.09	0.50	µg/L	10.0	ND	90.9	70-130			
Dibromomethane	9.23	1.0	µg/L	10.0	ND	92.3	70-130			
1,2-Dichlorobenzene	8.65	1.0	µg/L	10.0	ND	86.5	70-130			
1,3-Dichlorobenzene	8.65	1.0	µg/L	10.0	ND	86.5	70-130			
1,4-Dichlorobenzene	8.47	1.0	µg/L	10.0	ND	84.7	70-130			
trans-1,4-Dichloro-2-butene	5.47	2.0	µg/L	10.0	ND	54.7	* 70-130			MS-09
Dichlorodifluoromethane (Freon 12)	9.20	2.0	µg/L	10.0	ND	92.0	70-130			
1,1-Dichloroethane	10.9	1.0	µg/L	10.0	ND	109	70-130			
1,2-Dichloroethane	9.38	1.0	µg/L	10.0	ND	93.8	70-130			
1,1-Dichloroethylene	10.2	1.0	µg/L	10.0	ND	102	70-130			
cis-1,2-Dichloroethylene	9.81	1.0	µg/L	10.0	ND	98.1	70-130			
trans-1,2-Dichloroethylene	9.76	1.0	µg/L	10.0	ND	97.6	70-130			
1,2-Dichloropropane	10.1	1.0	µg/L	10.0	ND	101	70-130			
1,3-Dichloropropane	9.27	0.50	µg/L	10.0	ND	92.7	70-130			
2,2-Dichloropropane	8.68	1.0	µg/L	10.0	ND	86.8	70-130			
1,1-Dichloropropene	10.1	2.0	µg/L	10.0	ND	101	70-130			
cis-1,3-Dichloropropene	8.88	0.50	µg/L	10.0	ND	88.8	70-130			
trans-1,3-Dichloropropene	8.36	0.50	µg/L	10.0	ND	83.6	70-130			
Diethyl Ether	9.43	2.0	µg/L	10.0	ND	94.3	70-130			
Diisopropyl Ether (DIPE)	10.4	0.50	µg/L	10.0	ND	104	70-130			
1,4-Dioxane	75.1	50	µg/L	100	ND	75.1	70-130			
Ethylbenzene	8.50	1.0	µg/L	10.0	ND	85.0	70-130			
Hexachlorobutadiene	9.12	0.60	µg/L	10.0	ND	91.2	70-130			
2-Hexanone (MBK)	82.6	10	µg/L	100	ND	82.6	70-130			
Isopropylbenzene (Cumene)	7.74	1.0	µg/L	10.0	ND	77.4	70-130			
p-Isopropyltoluene (p-Cymene)	8.14	1.0	µg/L	10.0	ND	81.4	70-130			
Methyl Acetate	8.16	1.0	µg/L	10.0	ND	81.6	70-130			
Methyl tert-Butyl Ether (MTBE)	8.71	1.0	µg/L	10.0	ND	87.1	70-130			
Methyl Cyclohexane	9.56	1.0	µg/L	10.0	ND	95.6	70-130			
Methylene Chloride	9.98	5.0	µg/L	10.0	ND	99.8	70-130			
4-Methyl-2-pentanone (MIBK)	81.7	10	µg/L	100	ND	81.7	70-130			
Naphthalene	3.91	2.0	µg/L	10.0	ND	39.1	* 70-130			MS-09
n-Propylbenzene	7.83	1.0	µg/L	10.0	ND	78.3	70-130			
Styrene	7.22	1.0	µg/L	10.0	ND	72.2	70-130			
1,1,1,2-Tetrachloroethane	8.91	1.0	µg/L	10.0	ND	89.1	70-130			
1,1,2,2-Tetrachloroethane	8.37	0.50	µg/L	10.0	ND	83.7	70-130			
Tetrachloroethylene	9.12	1.0	µg/L	10.0	ND	91.2	70-130			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348658 - SW-846 5030B										
Matrix Spike (B348658-MS1)	Source: 23H1198-01			Prepared & Analyzed: 08/10/23						
Tetrahydrofuran	10.6	10	µg/L	10.0	ND	106	70-130			
Toluene	9.53	1.0	µg/L	10.0	ND	95.3	70-130			
1,2,3-Trichlorobenzene	5.68	5.0	µg/L	10.0	ND	56.8 *	70-130			MS-07A
1,2,4-Trichlorobenzene	5.46	1.0	µg/L	10.0	ND	54.6 *	70-130			MS-07A
1,3,5-Trichlorobenzene	7.75	1.0	µg/L	10.0	ND	77.5	70-130			
1,1,1-Trichloroethane	10.0	1.0	µg/L	10.0	ND	100	70-130			
1,1,2-Trichloroethane	9.22	1.0	µg/L	10.0	ND	92.2	70-130			
Trichloroethylene	9.35	1.0	µg/L	10.0	ND	93.5	70-130			
Trichlorofluoromethane (Freon 11)	9.82	2.0	µg/L	10.0	ND	98.2	70-130			
1,2,3-Trichloropropane	9.92	2.0	µg/L	10.0	ND	99.2	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.2	1.0	µg/L	10.0	ND	102	70-130			
1,2,4-Trimethylbenzene	8.09	1.0	µg/L	10.0	ND	80.9	70-130			
1,3,5-Trimethylbenzene	7.62	1.0	µg/L	10.0	ND	76.2	70-130			
Vinyl Chloride	10.6	2.0	µg/L	10.0	ND	106	70-130			
m+p Xylene	16.5	2.0	µg/L	20.0	ND	82.6	70-130			
o-Xylene	7.64	1.0	µg/L	10.0	ND	76.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	27.8		µg/L	25.0		111	70-130			
Surrogate: Toluene-d8	26.1		µg/L	25.0		104	70-130			
Surrogate: 4-Bromofluorobenzene	22.2		µg/L	25.0		88.9	70-130			
Matrix Spike Dup (B348658-MSD1)	Source: 23H1198-01			Prepared & Analyzed: 08/10/23						
Acetone	88.6	50	µg/L	100	ND	88.6	70-130	4.78	30	
Acrylonitrile	9.11	5.0	µg/L	10.0	ND	91.1	70-130	7.16	30	
tert-Amyl Methyl Ether (TAME)	7.76	0.50	µg/L	10.0	ND	77.6	70-130	1.53	30	
Benzene	10.1	1.0	µg/L	10.0	ND	101	70-130	4.34	30	
Bromobenzene	8.30	1.0	µg/L	10.0	ND	83.0	70-130	0.726	30	
Bromochloromethane	11.1	1.0	µg/L	10.0	ND	111	70-130	3.45	30	
Bromodichloromethane	9.35	0.50	µg/L	10.0	ND	93.5	70-130	1.51	30	
Bromoform	6.58	1.0	µg/L	10.0	ND	65.8 *	70-130	5.33	30	MS-09
Bromomethane	13.2	2.0	µg/L	10.0	ND	132 *	70-130	18.2	30	MS-12
2-Butanone (MEK)	95.5	20	µg/L	100	ND	95.5	70-130	5.55	30	
tert-Butyl Alcohol (TBA)	73.6	20	µg/L	100	ND	73.6	70-130	10.5	30	
n-Butylbenzene	8.34	1.0	µg/L	10.0	ND	83.4	70-130	3.42	30	
sec-Butylbenzene	8.33	1.0	µg/L	10.0	ND	83.3	70-130	0.479	30	
tert-Butylbenzene	8.09	1.0	µg/L	10.0	ND	80.9	70-130	1.75	30	
tert-Butyl Ethyl Ether (TBEE)	8.87	0.50	µg/L	10.0	ND	88.7	70-130	3.43	30	
Carbon Disulfide	95.2	5.0	µg/L	100	ND	95.2	70-130	2.40	30	
Carbon Tetrachloride	8.57	5.0	µg/L	10.0	ND	85.7	70-130	8.49	30	
Chlorobenzene	9.04	1.0	µg/L	10.0	ND	90.4	70-130	3.37	30	
Chlorodibromomethane	8.18	0.50	µg/L	10.0	ND	81.8	70-130	2.22	30	
Chloroethane	9.44	2.0	µg/L	10.0	ND	94.4	70-130	3.74	30	
Chloroform	9.96	2.0	µg/L	10.0	ND	99.6	70-130	3.84	30	
Chloromethane	9.88	2.0	µg/L	10.0	ND	98.8	70-130	10.9	30	
2-Chlorotoluene	8.30	1.0	µg/L	10.0	ND	83.0	70-130	2.85	30	
4-Chlorotoluene	7.79	1.0	µg/L	10.0	ND	77.9	70-130	2.16	30	
1,2-Dibromo-3-chloropropane (DBCP)	7.31	5.0	µg/L	10.0	ND	73.1	70-130	2.35	30	
1,2-Dibromoethane (EDB)	8.79	0.50	µg/L	10.0	ND	87.9	70-130	3.36	30	
Dibromomethane	9.07	1.0	µg/L	10.0	ND	90.7	70-130	1.75	30	
1,2-Dichlorobenzene	8.49	1.0	µg/L	10.0	ND	84.9	70-130	1.87	30	
1,3-Dichlorobenzene	9.11	1.0	µg/L	10.0	ND	91.1	70-130	5.18	30	
1,4-Dichlorobenzene	8.21	1.0	µg/L	10.0	ND	82.1	70-130	3.12	30	
trans-1,4-Dichloro-2-butene	6.01	2.0	µg/L	10.0	ND	60.1 *	70-130	9.41	30	MS-09

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348658 - SW-846 5030B										
Matrix Spike Dup (B348658-MSD1)	Source: 23H1198-01			Prepared & Analyzed: 08/10/23						
Dichlorodifluoromethane (Freon 12)	9.15	2.0	µg/L	10.0	ND	91.5	70-130	0.545	30	
1,1-Dichloroethane	10.1	1.0	µg/L	10.0	ND	101	70-130	7.05	30	
1,2-Dichloroethane	8.89	1.0	µg/L	10.0	ND	88.9	70-130	5.36	30	
1,1-Dichloroethylene	9.66	1.0	µg/L	10.0	ND	96.6	70-130	4.95	30	
cis-1,2-Dichloroethylene	9.56	1.0	µg/L	10.0	ND	95.6	70-130	2.58	30	
trans-1,2-Dichloroethylene	9.69	1.0	µg/L	10.0	ND	96.9	70-130	0.720	30	
1,2-Dichloropropane	9.40	1.0	µg/L	10.0	ND	94.0	70-130	7.48	30	
1,3-Dichloropropane	8.74	0.50	µg/L	10.0	ND	87.4	70-130	5.89	30	
2,2-Dichloropropane	7.95	1.0	µg/L	10.0	ND	79.5	70-130	8.78	30	
1,1-Dichloropropene	9.93	2.0	µg/L	10.0	ND	99.3	70-130	1.90	30	
cis-1,3-Dichloropropene	8.53	0.50	µg/L	10.0	ND	85.3	70-130	4.02	30	
trans-1,3-Dichloropropene	8.62	0.50	µg/L	10.0	ND	86.2	70-130	3.06	30	
Diethyl Ether	9.02	2.0	µg/L	10.0	ND	90.2	70-130	4.44	30	
Diisopropyl Ether (DIPE)	9.91	0.50	µg/L	10.0	ND	99.1	70-130	4.73	30	
1,4-Dioxane	62.2	50	µg/L	100	ND	62.2	* 70-130	18.8	30	MS-24
Ethylbenzene	8.53	1.0	µg/L	10.0	ND	85.3	70-130	0.352	30	
Hexachlorobutadiene	8.91	0.60	µg/L	10.0	ND	89.1	70-130	2.33	30	
2-Hexanone (MBK)	73.8	10	µg/L	100	ND	73.8	70-130	11.3	30	
Isopropylbenzene (Cumene)	7.72	1.0	µg/L	10.0	ND	77.2	70-130	0.259	30	
p-Isopropyltoluene (p-Cymene)	8.15	1.0	µg/L	10.0	ND	81.5	70-130	0.123	30	
Methyl Acetate	7.94	1.0	µg/L	10.0	ND	79.4	70-130	2.73	30	
Methyl tert-Butyl Ether (MTBE)	8.36	1.0	µg/L	10.0	ND	83.6	70-130	4.10	30	
Methyl Cyclohexane	9.45	1.0	µg/L	10.0	ND	94.5	70-130	1.16	30	
Methylene Chloride	9.55	5.0	µg/L	10.0	ND	95.5	70-130	4.40	30	
4-Methyl-2-pentanone (MIBK)	81.0	10	µg/L	100	ND	81.0	70-130	0.910	30	
Naphthalene	4.64	2.0	µg/L	10.0	ND	46.4	* 70-130	17.1	30	MS-09
n-Propylbenzene	8.13	1.0	µg/L	10.0	ND	81.3	70-130	3.76	30	
Styrene	7.40	1.0	µg/L	10.0	ND	74.0	70-130	2.46	30	
1,1,1,2-Tetrachloroethane	8.70	1.0	µg/L	10.0	ND	87.0	70-130	2.39	30	
1,1,2,2-Tetrachloroethane	8.16	0.50	µg/L	10.0	ND	81.6	70-130	2.54	30	
Tetrachloroethylene	9.16	1.0	µg/L	10.0	ND	91.6	70-130	0.438	30	
Tetrahydrofuran	9.36	10	µg/L	10.0	ND	93.6	70-130	12.4	30	
Toluene	9.50	1.0	µg/L	10.0	ND	95.0	70-130	0.315	30	
1,2,3-Trichlorobenzene	6.25	5.0	µg/L	10.0	ND	62.5	* 70-130	9.56	30	MS-07A
1,2,4-Trichlorobenzene	5.72	1.0	µg/L	10.0	ND	57.2	* 70-130	4.65	30	MS-07A
1,3,5-Trichlorobenzene	7.64	1.0	µg/L	10.0	ND	76.4	70-130	1.43	30	
1,1,1-Trichloroethane	10.0	1.0	µg/L	10.0	ND	100	70-130	0.200	30	
1,1,2-Trichloroethane	8.83	1.0	µg/L	10.0	ND	88.3	70-130	4.32	30	
Trichloroethylene	9.32	1.0	µg/L	10.0	ND	93.2	70-130	0.321	30	
Trichlorofluoromethane (Freon 11)	9.66	2.0	µg/L	10.0	ND	96.6	70-130	1.64	30	
1,2,3-Trichloropropane	9.78	2.0	µg/L	10.0	ND	97.8	70-130	1.42	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.97	1.0	µg/L	10.0	ND	99.7	70-130	1.99	30	
1,2,4-Trimethylbenzene	8.00	1.0	µg/L	10.0	ND	80.0	70-130	1.12	30	
1,3,5-Trimethylbenzene	7.92	1.0	µg/L	10.0	ND	79.2	70-130	3.86	30	
Vinyl Chloride	10.5	2.0	µg/L	10.0	ND	105	70-130	1.14	30	
m+p Xylene	16.6	2.0	µg/L	20.0	ND	83.0	70-130	0.543	20	
o-Xylene	7.67	1.0	µg/L	10.0	ND	76.7	70-130	0.392	30	
Surrogate: 1,2-Dichloroethane-d4	26.7		µg/L	25.0		107	70-130			
Surrogate: Toluene-d8	26.1		µg/L	25.0		104	70-130			
Surrogate: 4-Bromofluorobenzene	22.5		µg/L	25.0		89.9	70-130			

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B348928 - SW-846 3510C
Blank (B348928-BLK1)

Prepared: 08/14/23 Analyzed: 08/16/23

Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	20	µg/L							V-05
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							R-05, V-04, V-05, V-35
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	20	µg/L							R-05, V-05
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							V-06
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							V-04
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							V-35
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							L-04
1,3-Dichlorobenzene	ND	5.0	µg/L							L-04
1,4-Dichlorobenzene	ND	5.0	µg/L							L-04
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	20	µg/L							V-04
2,4-Dinitrophenol	ND	10	µg/L							R-05, V-04
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							V-04
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							L-04, R-05
Hexachlorocyclopentadiene	ND	10	µg/L							L-04
Hexachloroethane	ND	10	µg/L							L-04
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B348928 - SW-846 3510C
Blank (B348928-BLK1)

Prepared: 08/14/23 Analyzed: 08/16/23

2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							L-04
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							V-05
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	20	µg/L							R-05
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							L-04
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	226		µg/L	400		56.5	15-110			
Surrogate: Phenol-d6	148		µg/L	400		37.0	15-110			
Surrogate: Nitrobenzene-d5	141		µg/L	200		70.6	30-130			
Surrogate: 2-Fluorobiphenyl	130		µg/L	200		65.1	30-130			
Surrogate: 2,4,6-Tribromophenol	321		µg/L	400		80.4	15-110			
Surrogate: p-Terphenyl-d14	170		µg/L	200		85.0	30-130			

LCS (B348928-BS1)

Prepared: 08/14/23 Analyzed: 08/16/23

Acenaphthene	70.2	5.0	µg/L	100		70.2	40-140			
Acenaphthylene	75.0	5.0	µg/L	100		75.0	40-140			
Acetophenone	83.2	10	µg/L	100		83.2	40-140			
Aniline	50.0	20	µg/L	100		50.0	40-140			V-05
Anthracene	84.5	5.0	µg/L	100		84.5	40-140			
Benzidine	44.8	20	µg/L	100		44.8	40-140			R-05, V-04, V-05, V-35
Benzo(a)anthracene	87.0	5.0	µg/L	100		87.0	40-140			
Benzo(a)pyrene	88.4	5.0	µg/L	100		88.4	40-140			
Benzo(b)fluoranthene	86.4	5.0	µg/L	100		86.4	40-140			
Benzo(g,h,i)perylene	91.3	5.0	µg/L	100		91.3	40-140			
Benzo(k)fluoranthene	94.3	5.0	µg/L	100		94.3	40-140			
Benzoic Acid	41.5	20	µg/L	100		41.5	10-130			R-05, V-05 †
Bis(2-chloroethoxy)methane	77.8	10	µg/L	100		77.8	40-140			
Bis(2-chloroethyl)ether	88.7	10	µg/L	100		88.7	40-140			
Bis(2-chloroisopropyl)ether	103	10	µg/L	100		103	40-140			V-06
Bis(2-Ethylhexyl)phthalate	88.6	10	µg/L	100		88.6	40-140			V-04
4-Bromophenylphenylether	80.1	10	µg/L	100		80.1	40-140			
Butylbenzylphthalate	97.9	10	µg/L	100		97.9	40-140			V-35
Carbazole	86.4	10	µg/L	100		86.4	40-140			
4-Chloroaniline	76.8	10	µg/L	100		76.8	40-140			
4-Chloro-3-methylphenol	80.1	10	µg/L	100		80.1	30-130			
2-Chloronaphthalene	50.2	10	µg/L	100		50.2	40-140			

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348928 - SW-846 3510C										
LCS (B348928-BS1)										
Prepared: 08/14/23 Analyzed: 08/16/23										
2-Chlorophenol	74.0	10	µg/L	100		74.0	30-130			
4-Chlorophenylphenylether	75.2	10	µg/L	100		75.2	40-140			
Chrysene	83.4	5.0	µg/L	100		83.4	40-140			
Dibenz(a,h)anthracene	94.6	5.0	µg/L	100		94.6	40-140			
Dibenzofuran	74.8	5.0	µg/L	100		74.8	40-140			
Di-n-butylphthalate	87.5	10	µg/L	100		87.5	40-140			
1,2-Dichlorobenzene	31.2	5.0	µg/L	100		31.2	* 40-140			L-04
1,3-Dichlorobenzene	28.9	5.0	µg/L	100		28.9	* 40-140			L-04
1,4-Dichlorobenzene	29.9	5.0	µg/L	100		29.9	* 40-140			L-04
3,3-Dichlorobenzidine	107	10	µg/L	100		107	40-140			
2,4-Dichlorophenol	80.4	10	µg/L	100		80.4	30-130			
Diethylphthalate	80.3	10	µg/L	100		80.3	40-140			
2,4-Dimethylphenol	68.5	10	µg/L	100		68.5	30-130			
Dimethylphthalate	82.2	10	µg/L	100		82.2	40-140			
4,6-Dinitro-2-methylphenol	94.3	20	µg/L	100		94.3	30-130			V-04
2,4-Dinitrophenol	84.8	10	µg/L	100		84.8	30-130			R-05, V-04
2,4-Dinitrotoluene	87.8	10	µg/L	100		87.8	40-140			
2,6-Dinitrotoluene	94.4	10	µg/L	100		94.4	40-140			
Di-n-octylphthalate	88.0	10	µg/L	100		88.0	40-140			V-04
1,2-Diphenylhydrazine/Azobenzene	78.6	10	µg/L	100		78.6	40-140			
Fluoranthene	84.8	5.0	µg/L	100		84.8	40-140			
Fluorene	77.4	5.0	µg/L	100		77.4	40-140			
Hexachlorobenzene	82.1	10	µg/L	100		82.1	40-140			
Hexachlorobutadiene	24.2	10	µg/L	100		24.2	* 40-140			L-04, R-05
Hexachlorocyclopentadiene	26.2	10	µg/L	100		26.2	* 30-140			L-04 †
Hexachloroethane	24.3	10	µg/L	100		24.3	* 40-140			L-04
Indeno(1,2,3-cd)pyrene	97.0	5.0	µg/L	100		97.0	40-140			
Isophorone	81.3	10	µg/L	100		81.3	40-140			
1-Methylnaphthalene	45.4	5.0	µg/L	100		45.4	40-140			
2-Methylnaphthalene	43.5	5.0	µg/L	100		43.5	40-140			
2-Methylphenol	74.3	10	µg/L	100		74.3	30-130			
3/4-Methylphenol	69.0	10	µg/L	100		69.0	30-130			
Naphthalene	36.7	5.0	µg/L	100		36.7	* 40-140			L-04
2-Nitroaniline	82.2	10	µg/L	100		82.2	40-140			
3-Nitroaniline	88.5	10	µg/L	100		88.5	40-140			
4-Nitroaniline	86.2	10	µg/L	100		86.2	40-140			
Nitrobenzene	67.6	10	µg/L	100		67.6	40-140			
2-Nitrophenol	72.5	10	µg/L	100		72.5	30-130			
4-Nitrophenol	46.8	10	µg/L	100		46.8	10-130			V-05 †
N-Nitrosodimethylamine	52.2	10	µg/L	100		52.2	40-140			
N-Nitrosodiphenylamine/Diphenylamine	83.8	10	µg/L	100		83.8	40-140			
N-Nitrosodi-n-propylamine	73.0	10	µg/L	100		73.0	40-140			
Pentachloronitrobenzene	96.7	10	µg/L	100		96.7	40-140			
Pentachlorophenol	84.4	10	µg/L	100		84.4	30-130			
Phenanthrene	80.9	5.0	µg/L	100		80.9	40-140			
Phenol	40.4	10	µg/L	100		40.4	20-130			†
Pyrene	83.0	5.0	µg/L	100		83.0	40-140			
Pyridine	9.92	20	µg/L	100		9.92	* 10-140			L-07A †
1,2,4,5-Tetrachlorobenzene	52.5	10	µg/L	100		52.5	40-140			
1,2,4-Trichlorobenzene	29.5	5.0	µg/L	100		29.5	* 40-140			L-04
2,4,5-Trichlorophenol	85.9	10	µg/L	100		85.9	30-130			
2,4,6-Trichlorophenol	81.2	10	µg/L	100		81.2	30-130			

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348928 - SW-846 3510C										
LCS (B348928-BS1)										
Prepared: 08/14/23 Analyzed: 08/16/23										
Surrogate: 2-Fluorophenol	272		µg/L	400		68.0	15-110			
Surrogate: Phenol-d6	192		µg/L	400		47.9	15-110			
Surrogate: Nitrobenzene-d5	172		µg/L	200		86.0	30-130			
Surrogate: 2-Fluorobiphenyl	171		µg/L	200		85.6	30-130			
Surrogate: 2,4,6-Tribromophenol	415		µg/L	400		104	15-110			
Surrogate: p-Terphenyl-d14	207		µg/L	200		104	30-130			
LCS Dup (B348928-BSD1)										
Prepared: 08/14/23 Analyzed: 08/16/23										
Acenaphthene	65.1	5.0	µg/L	100		65.1	40-140	7.46	20	
Acenaphthylene	69.8	5.0	µg/L	100		69.8	40-140	7.23	20	
Acetophenone	80.1	10	µg/L	100		80.1	40-140	3.85	20	
Aniline	63.4	20	µg/L	100		63.4	40-140	23.6	50	V-05 ‡
Anthracene	81.9	5.0	µg/L	100		81.9	40-140	3.22	20	
Benztidine	131	20	µg/L	100		131	40-140	98.1 *	20	R-05, V-04, V-05, V-35
Benzo(a)anthracene	83.8	5.0	µg/L	100		83.8	40-140	3.78	20	
Benzo(a)pyrene	84.6	5.0	µg/L	100		84.6	40-140	4.44	20	
Benzo(b)fluoranthene	82.4	5.0	µg/L	100		82.4	40-140	4.72	20	
Benzo(g,h,i)perylene	85.9	5.0	µg/L	100		85.9	40-140	6.07	20	
Benzo(k)fluoranthene	87.4	5.0	µg/L	100		87.4	40-140	7.62	20	
Benzoic Acid	18.7	20	µg/L	100		18.7	10-130	75.7 *	50	R-05, V-05 † ‡
Bis(2-chloroethoxy)methane	73.8	10	µg/L	100		73.8	40-140	5.40	20	
Bis(2-chloroethyl)ether	83.5	10	µg/L	100		83.5	40-140	5.98	20	
Bis(2-chloroisopropyl)ether	98.5	10	µg/L	100		98.5	40-140	4.27	20	V-06
Bis(2-Ethylhexyl)phthalate	85.9	10	µg/L	100		85.9	40-140	3.15	20	V-04
4-Bromophenylphenylether	78.5	10	µg/L	100		78.5	40-140	2.01	20	
Butylbenzylphthalate	97.9	10	µg/L	100		97.9	40-140	0.0102	20	V-35
Carbazole	82.1	10	µg/L	100		82.1	40-140	5.04	20	
4-Chloroaniline	75.2	10	µg/L	100		75.2	40-140	1.97	20	
4-Chloro-3-methylphenol	74.8	10	µg/L	100		74.8	30-130	6.88	20	
2-Chloronaphthalene	47.2	10	µg/L	100		47.2	40-140	6.24	20	
2-Chlorophenol	70.5	10	µg/L	100		70.5	30-130	4.89	20	
4-Chlorophenylphenylether	70.8	10	µg/L	100		70.8	40-140	5.99	20	
Chrysene	77.9	5.0	µg/L	100		77.9	40-140	6.76	20	
Dibenz(a,h)anthracene	87.3	5.0	µg/L	100		87.3	40-140	8.05	20	
Dibenzofuran	70.6	5.0	µg/L	100		70.6	40-140	5.86	20	
Di-n-butylphthalate	85.4	10	µg/L	100		85.4	40-140	2.39	20	
1,2-Dichlorobenzene	34.2	5.0	µg/L	100		34.2 *	40-140	9.38	20	L-04
1,3-Dichlorobenzene	32.3	5.0	µg/L	100		32.3 *	40-140	11.3	20	L-04
1,4-Dichlorobenzene	32.0	5.0	µg/L	100		32.0 *	40-140	6.81	20	L-04
3,3-Dichlorobenzidine	101	10	µg/L	100		101	40-140	5.61	20	
2,4-Dichlorophenol	74.6	10	µg/L	100		74.6	30-130	7.43	20	
Diethylphthalate	74.5	10	µg/L	100		74.5	40-140	7.47	20	
2,4-Dimethylphenol	65.2	10	µg/L	100		65.2	30-130	4.91	20	
Dimethylphthalate	77.6	10	µg/L	100		77.6	40-140	5.73	50	‡
4,6-Dinitro-2-methylphenol	83.0	20	µg/L	100		83.0	30-130	12.8	50	V-04 ‡
2,4-Dinitrophenol	44.3	10	µg/L	100		44.3	30-130	62.8 *	50	R-05, V-04 ‡
2,4-Dinitrotoluene	81.6	10	µg/L	100		81.6	40-140	7.37	20	
2,6-Dinitrotoluene	88.7	10	µg/L	100		88.7	40-140	6.32	20	
Di-n-octylphthalate	88.3	10	µg/L	100		88.3	40-140	0.250	20	V-04
1,2-Diphenylhydrazine/Azobenzene	76.7	10	µg/L	100		76.7	40-140	2.36	20	
Fluoranthene	81.2	5.0	µg/L	100		81.2	40-140	4.27	20	
Fluorene	72.2	5.0	µg/L	100		72.2	40-140	6.97	20	

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B348928 - SW-846 3510C										
LCS Dup (B348928-BSD1)										
Prepared: 08/14/23 Analyzed: 08/16/23										
Hexachlorobenzene	78.9	10	µg/L	100		78.9	40-140	3.95	20	
Hexachlorobutadiene	30.6	10	µg/L	100		30.6 *	40-140	23.2 *	20	L-04, R-05
Hexachlorocyclopentadiene	28.8	10	µg/L	100		28.8 *	30-140	9.39	50	L-04 † ‡
Hexachloroethane	28.8	10	µg/L	100		28.8 *	40-140	16.8	50	L-04 ‡
Indeno(1,2,3-cd)pyrene	91.4	5.0	µg/L	100		91.4	40-140	5.96	50	‡
Isophorone	76.1	10	µg/L	100		76.1	40-140	6.65	20	
1-Methylnaphthalene	44.1	5.0	µg/L	100		44.1	40-140	2.88	20	
2-Methylnaphthalene	43.2	5.0	µg/L	100		43.2	40-140	0.646	20	
2-Methylphenol	70.1	10	µg/L	100		70.1	30-130	5.78	20	
3/4-Methylphenol	67.2	10	µg/L	100		67.2	30-130	2.56	20	
Naphthalene	39.3	5.0	µg/L	100		39.3 *	40-140	6.76	20	L-04
2-Nitroaniline	79.3	10	µg/L	100		79.3	40-140	3.61	20	
3-Nitroaniline	86.8	10	µg/L	100		86.8	40-140	1.97	20	
4-Nitroaniline	80.8	10	µg/L	100		80.8	40-140	6.54	20	
Nitrobenzene	63.8	10	µg/L	100		63.8	40-140	5.71	20	
2-Nitrophenol	69.9	10	µg/L	100		69.9	30-130	3.68	20	
4-Nitrophenol	41.8	10	µg/L	100		41.8	10-130	11.2	50	V-05 † ‡
N-Nitrosodimethylamine	50.9	10	µg/L	100		50.9	40-140	2.40	20	
N-Nitrosodiphenylamine/Diphenylamine	81.5	10	µg/L	100		81.5	40-140	2.67	20	
N-Nitrosodi-n-propylamine	69.6	10	µg/L	100		69.6	40-140	4.90	20	
Pentachloronitrobenzene	94.1	10	µg/L	100		94.1	40-140	2.80	20	
Pentachlorophenol	79.5	10	µg/L	100		79.5	30-130	5.99	50	‡
Phenanthrene	78.3	5.0	µg/L	100		78.3	40-140	3.33	20	
Phenol	39.2	10	µg/L	100		39.2	20-130	2.99	20	†
Pyrene	81.7	5.0	µg/L	100		81.7	40-140	1.66	20	
Pyridine	38.2	20	µg/L	100		38.2	10-140	118 *	50	R-05 † ‡
1,2,4,5-Tetrachlorobenzene	52.5	10	µg/L	100		52.5	40-140	0.114	20	
1,2,4-Trichlorobenzene	33.4	5.0	µg/L	100		33.4 *	40-140	12.2	20	L-04
2,4,5-Trichlorophenol	78.6	10	µg/L	100		78.6	30-130	8.85	20	
2,4,6-Trichlorophenol	77.9	10	µg/L	100		77.9	30-130	4.07	50	‡
Surrogate: 2-Fluorophenol	239		µg/L	400		59.7	15-110			
Surrogate: Phenol-d6	167		µg/L	400		41.8	15-110			
Surrogate: Nitrobenzene-d5	147		µg/L	200		73.7	30-130			
Surrogate: 2-Fluorobiphenyl	147		µg/L	200		73.5	30-130			
Surrogate: 2,4,6-Tribromophenol	352		µg/L	400		87.9	15-110			
Surrogate: p-Terphenyl-d14	183		µg/L	200		91.7	30-130			

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QUALITY CONTROL
1,4-Dioxane by isotope dilution GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch B348480 - SW-846 3510C								
Blank (B348480-BLK1)				Prepared: 08/09/23 Analyzed: 08/15/23				
1,4-Dioxane	ND	0.20	µg/L					
Surrogate: 1,4-Dioxane-d8	2.84		µg/L	10.0		28.4	15-110	
LCS (B348480-BS1)				Prepared: 08/09/23 Analyzed: 08/15/23				
1,4-Dioxane	10.8	0.20	µg/L	10.0		108	40-140	
Surrogate: 1,4-Dioxane-d8	3.23		µg/L	10.0		32.3	15-110	
LCS Dup (B348480-BSD1)				Prepared: 08/09/23 Analyzed: 08/15/23				
1,4-Dioxane	11.7	0.20	µg/L	10.0		117	40-140	7.16 30
Surrogate: 1,4-Dioxane-d8	2.86		µg/L	10.0		28.6	15-110	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
MS-07A	Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-12	Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-24	Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260D in Water</i>	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY

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CERTIFICATIONS
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Analyte	Certifications
<i>SW-846 8260D in Water</i>	
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
<i>SW-846 8270E in Water</i>	
1,4-Dioxane	NY,NH
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS
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Analyte	Certifications
<i>SW-846 8270E in Water</i>	
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270E in Water</i>	
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodiphenylamine/Diphenylamine	NY
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

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Code	Description	Number	Expires
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2023



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Sample	Soils Jars				Ambers				Plastics							VOA Vials					Other / Fill in				
	(Circle Amb/Clear)				1 Liter				250mL				100mL			500mL					250mL				
1	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCL	Unpreserved	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Unpreserved	Unpreserved	Unpreserved	Unpreserved	Unpreserved	Unpreserved	Unpreserved
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