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

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

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

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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
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 April 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 0830 hours, March 31, 2023, through approximately 0800 hours, May 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 31 days in this reporting period during which the treatment system experienced 204 minutes of downtime. Down time was caused by PFF vault – float signal interruptions.

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. RW4 recovery pump shut down on August 17th, 2022 and could not be restarted due to a possible pump motor failure. RW5 recovery pump was replaced on October 10, 2022, but was started on January 5, 2023, following the replacement of high-pressure switch on top of the wellhead. RW-5 shut down on January 26, 2023, due to pump motor short circuiting. Both pumps were scheduled to be replaced early May 2023.

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 (April 23 Database.xlsx)
- NYSDEC 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 April activities is further provided in the plant operator's daily logbook.

Maintenance and project activities undertaken during the April 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.
- 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 May 1, 2023, US Water and Bay Crane operator on site to conduct RW5 pump extraction and pump motor replacement.

2.3 Deliveries

- On April 7, 2023, FedEx delivered sampling coolers for the upcoming remedial system sampling events scheduled for May 2023.

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.
- RW5 requires new pump motor to be installed.
- RW4 pump motor inspection and replacement due to recent failure.
- 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.
- OU5 Annual fire extinguisher inspection is due.
- OU5 Annual fire alarm inspection is due.

5. MONITORING WELL WATER ELEVATIONS

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

6. TREATMENT SYSTEM FLOWS

During the April 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.

RW5 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 has been confirmed inoperable. The motor short circuiting was confirmed on March 13, 2023 during pump extraction and inspection activities. RW3 continues to function normally. RW4 has been offline since August 17, 2022 with pump replacement pending.

During the month of April, the plant discharge was directed to Recharge Basin 1 from April 5, 2023 through April 11, 2023. The effluent discharge was directed to Recharge Basin 33 for the remainder of the period.

The total volume of treated water discharged from ~0830 hours March 31 to ~0800 hours May 1 was approximately 10,674,000 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 April 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 April 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 April 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 April of 2023.

8. WASTE DISPOSALS

Routine accumulation of waste materials continued from plant clean-up and organizational tasks. Waste removal is being handled by National Waste Services, LLC. Waste container was emptied on December 30, 2022. Next container service will be scheduled for May 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 April 4, 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.

Following PLC troubleshooting at RW5, a new replacement pressure switch has been ordered for the pump wellhead. A temporary used pressure switch was taken from RW2 and installed at RW5, which enabled successful operation of the pump in auto mode. RW5 experienced a line over-amperage and possible motor windings short on January 26, 2023, and could not be restarted. The pump requires inspection for motor winding and motor down-well conduit damage. A new pressure switch was installed on March 23, 2023, and the used one was re-installed at RW2 vault.

RW4 needs a motor replacement following failure on August 17, 2022.

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 April 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 April sampling activities included:

- The April PD data was processed and submitted.
- Monthly system sampling was completed on April 4, 2023.
- Select quarterly groundwater sampling via passive diffusive bags (PDBs) to accommodate Town of Oyster Bay semi-annual groundwater sampling activities. PDBs were removed and VOC samples collected at LF-1, MW-5B, MW-6B, MW-6C, MW-6E, MW-6F, MW-8A, MW-8B, MW-9B, MW-9C, and OBS-1. PDB harnesses were bagged and stored pending completion of semi-annual sampling event. PDBs will be reinstalled by Ramboll the week of May 15, 2023.

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 April 2023 can be found in **Table 8** following the text of this report.

The April 2023 average pH measurement was 7.28 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 April 2023 readings from the AS tower are provided in **Table 10**.

Other routine data collected in April 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 RW3 is online and fully functional. RW4 was fully functional until August 17, 2022, when it experienced a possible motor failure. RW5 experienced problems beginning on March 12, 2022, that left it inoperable. Pump replacement was conducted on October 10, 2022, however, due to signal issues, the pump could not be operated in automatic mode. A pressure switch was taken from RW2 and installed in RW5 on January 5, 2023. A new replacement pressure switch was ordered and replaced on March 23, 2023. The pump was activated on January 5, 2023, and shut down on January 26, 2023 due to electrical short issues at the pump motor.
- Pump flow readouts are transmitted to the plant and the totalizers for pumps RW3, and RW4 are fully functional. The flow meter for RW5 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.
- RW1 and RW2 are offline and periodically run for preventative maintenance purposes. Their flow meters are not transmitting through the PLC. When repairs were made at RW1 in November 2021, stones were removed from the flow meterhousing. There was a thick coating of iron salt deposits on the housing and impeller.

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 flow was switched to Recharge Basin 1 between April 5 and April 11, 2023, due to RB#33 being close to overflow. The flow was reverted back to RB#33 for the remainder of the period.
- The valve influent to Recharge Basin 1 remains closed as of April 11, 2023.
- 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.

14. GROUNDS

14.1 Plant Perimeter

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

14.2 Well Field

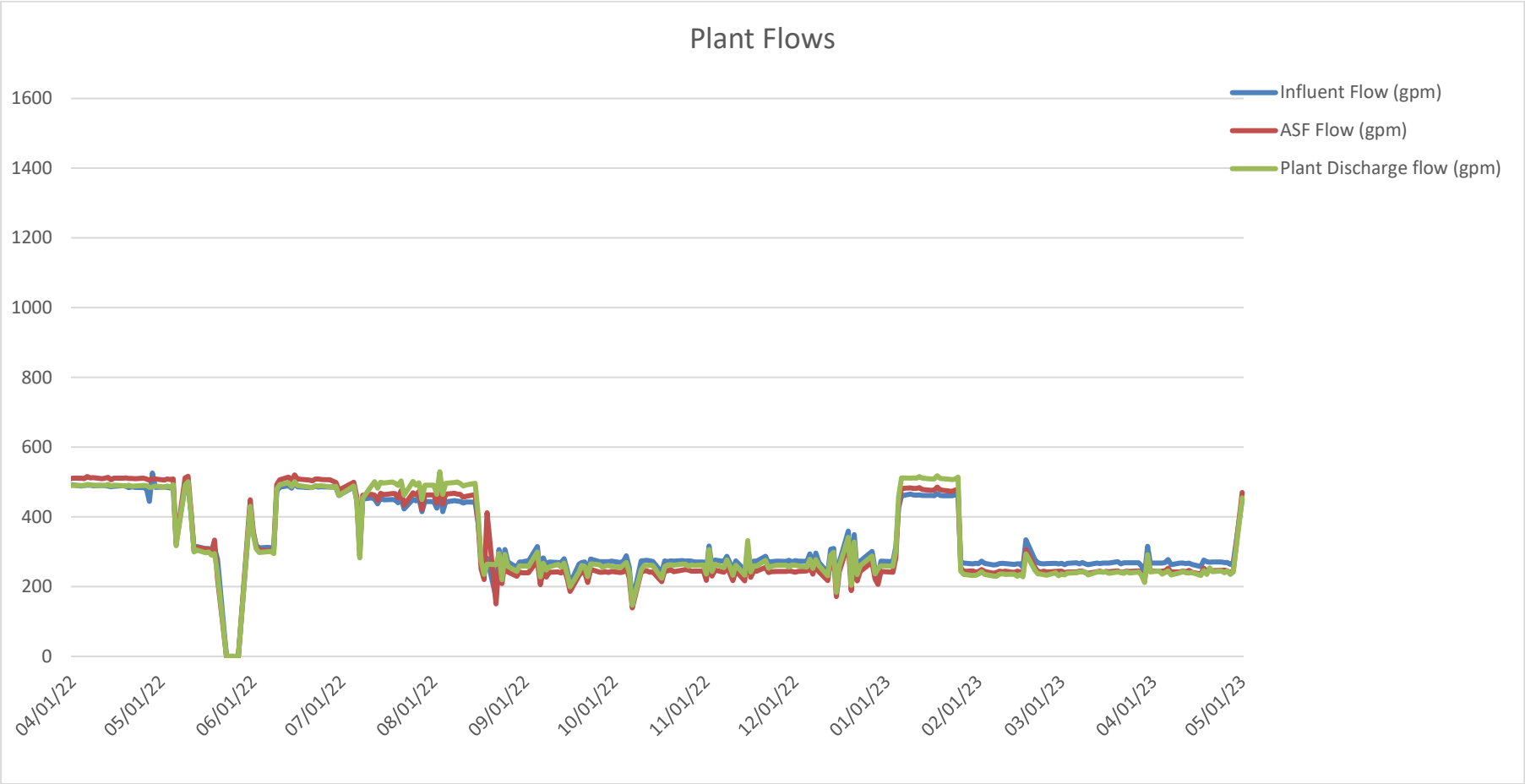
- Well field, and recharge basin inspections continue.

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 RW1 and RW3. 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. Repair work may require evaluation and outside resources. Currently the situation is controlled.	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
RW5 has failed	RW5 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
RW4 has failed	RW4 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.	Plant Operator and US Water	Less water is treated	To be determined
Air vacuum valve removal	On May 22, 2022 RW4 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 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	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
	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
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

Equipment	Fault	Status
PFF pump isolation valve	Valve P3 has vailed open	Not needed at this time
RW1 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
RW2 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
Apr 2023	240	344,323	10,674,000	204	44,406

Acronyms: gal - gallons gpm – gallons per minute

Table 3
Plant Daily Totalizer Readings

April 2023 Flows						
Plant Influent			Plant Discharge		RW Discharge	
Date	Volume	Avg. Flow	Volume	Avg. Flow	Volume	Avg. Flow
03/31/23	-	244	-	247	-	268
04/03/23	1,060,000	245	1,045,000	242	1,157,000	268
04/04/23	352,000	244	353,000	245	385,000	267
04/05/23	352,000	244	340,000	236	385,000	267
04/06/23	353,000	245	346,000	240	387,000	269
04/07/23	364,000	243	353,000	235	400,000	267
04/10/23	1,046,000	246	1,008,000	237	1,135,000	266
04/11/23	349,000	242	347,000	241	385,000	267
04/12/23	353,000	245	351,000	244	385,000	267
04/13/23	348,000	242	345,000	240	383,000	266
04/14/23	355,000	247	344,000	239	385,000	267
04/17/23	985,000	241	982,000	240	1,079,000	264
04/18/23	332,000	226	327,000	222	363,000	247
04/19/23	356,000	247	347,000	241	389,000	270
04/20/23	351,000	244	338,000	235	391,000	272
04/21/23	358,000	249	365,000	253	389,000	270
04/24/23	1,062,000	246	1,048,000	243	1,168,000	270
04/25/23	355,000	247	353,000	245	393,000	273
04/26/23	356,000	247	345,000	240	388,000	269
04/27/23	353,000	245	353,000	245	387,000	269
04/28/23	343,000	243	338,000	240	380,000	270
05/01/23	1,063,000	246	1,046,000	242	1,166,000	270
April Total Plant Influent (Gal)			10,846,000			
April Total Plant Effluent (Gal)			10,674,000			
April Total RW Discharge (Gal)			11,880,000			

Acronyms: gal - gallons

gpm – gallons per minute

Table 4
Pump System Flow Readings

April	On-Time Minutes (actual)	Avg. Flow (gpm)	Avg. Flow (gpd)	Total Flow (gal)
RW1*	5	149	0	745
RW2*	5	209	0	1,045
RW3	44,406	253	362,774	11,246,000
RW4	0	0	0	0
RW5	0	0	0	0
RW Totals	44,406	268	383,226	10,846,000
Plant Influent	44,406	244	349,871	11,880,000
Plant Effluent	44,406	240	344,323	10,674,000

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

The treatment process was online 31 days during this period with 204 minutes of downtime. Flows are taken from the HMI meter readings. System was down on 4/15/2023 and 4/16/2023 due to high level alarm on PFF vault. The alarm was caused by float signal interruptions which cause PFF transfer pumps inoperable.

* 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
April 4, 2023

Parameters	Discharge Limitations (SPDES)	Units	Results
<i>pH (range)</i>	6.5 – 8.5	<i>su</i>	7.28
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
April 4, 2023

Parameters	Guidance Values	Units	Influent Results	Effluent Results
Perfluorooctanoic acid (PFOA)	10 ¹	ng/l	44 / 43	44 / 42
Perfluorooctanesulfonic acid (PFOS)	10 ¹	ng/l	13 / 13	13 / 15
1,4-Dioxane	1 ²	ug/l	44 / 43	41 / 43
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 New York State Department of Environmental Conservation, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), November 2022. ² New York State, Department of Health, Subpart 5, Table 3, May 2018.				

Table 8
Effluent pH and Temperature Readings

Date	pH (su)	Temp (° C)
04/06/2023	7.19	18.1
04/11/2023	7.37	18.2
04/17/2023	7.26	16.8
04/25/2023	7.29	15.7
April Average	7.28 su	17.2 °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

Plant Discharge Monthly Average pH Readings

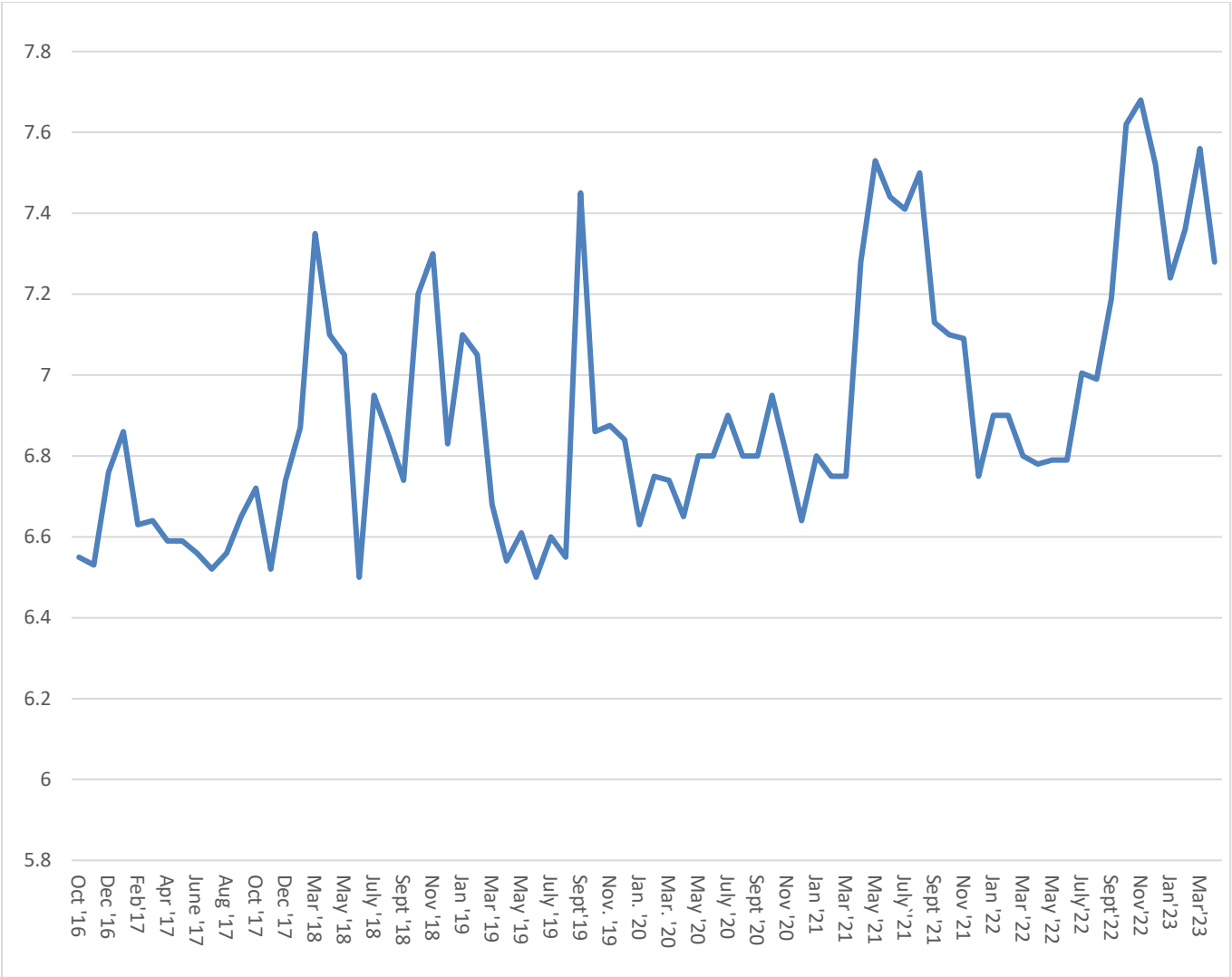


Table 10
AS Tower Air Monitoring Readings

Recorded Date	Port B (ppm)
04/07/2023	0.0
04/12/2023	0.0
04/17/2023	0.0
04/25/2023	0.0

ATTACHMENT 1
QUARTERLY O&M SAMPLING ANALYTICAL RESULTS –APRIL 4, 2023

April 19, 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: 23D0395

Enclosed are results of analyses for samples as received by the laboratory on April 5, 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: 4/19/2023

PURCHASE ORDER NUMBER: 144165

PROJECT NUMBER: 130015

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23D0395

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-00-040423	23D0395-01	Water		SW-846 8260D	
				SW-846 8270E	
PD-CP-01-040423	23D0395-02	Water		SW-846 8260D	
				SW-846 8270E	
ASF-CP-00-040423	23D0395-03	Water		SW-846 8270E	
ASF-CP-01-040423	23D0395-04	Water		SW-846 8270E	
TB-040423	23D0395-05	Trip Blank Water		SW-846 8260D	

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.

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

SW-846 8260D

Qualifications:**L-02**

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

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

B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085794-CCV1

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:**Methyl Acetate**

23D0395-02[PD-CP-01-040423], 23D0395-05[TB-040423], B336477-BLK1, B336477-BS1, B336477-BSD1, S085765-CCV1

trans-1,4-Dichloro-2-butene

23D0395-01[PD-CP-00-040423], B336478-BLK1, B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085794-CCV1

L-06

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

Analyte & Samples(s) Qualified:**Vinyl Chloride**

B336477-BS1, B336477-BSD1, B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085765-CCV1, S085794-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:**Methyl Acetate**

B336478-BSD1

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:**Methyl Acetate**

23D0395-01[PD-CP-00-040423], B336478-MS1, B336478-MSD1

trans-1,4-Dichloro-2-butene

23D0395-01[PD-CP-00-040423], B336478-MS1, B336478-MSD1

MS-15

Matrix spike and matrix spike duplicate recoveries are outside of control limits. Data validation is not affected since results for this compound in this sample are "not detected", and recovery bias is on the high side.

Analyte & Samples(s) Qualified:**Vinyl Chloride**

B336478-MS1, B336478-MSD1

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:**Chloromethane**

23D0395-01[PD-CP-00-040423], B336478-BLK1, B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085794-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:**Methyl Acetate**

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], 23D0395-05[TB-040423], B336477-BLK1, B336477-BS1, B336477-BSD1, B336478-BLK1, B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085765-CCV1, S085794-CCV1

trans-1,4-Dichloro-2-butene

23D0395-01[PD-CP-00-040423], B336478-BLK1, B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085794-CCV1

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

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:**Vinyl Chloride**

B336477-BS1, B336477-BSD1, B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085765-CCV1, S085794-CCV1

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:**Bromomethane**

B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085794-CCV1

Chloroethane

B336477-BS1, B336477-BSD1, B336478-BS1, B336478-BSD1, B336478-MS1, B336478-MSD1, S085765-CCV1, S085794-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:**Benzidine**

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1

Hexachlorobutadiene

23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1

Hexachloroethane

23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1

L-06

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

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

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], 23D0395-03[ASF-CP-00-040423], 23D0395-04[ASF-CP-01-040423], B336330-BS1, B336330-BSD1, B336330-MS1, B336330-MSD1

MS-12A

Matrix spike and spike duplicate recovery is outside of control limits on the high side.

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

B336330-MS1, B336330-MSD1

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:**Benzidine**

23D0395-01[PD-CP-00-040423], B336516-BLK1, B336516-BS1, B336516-BSD1

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**

23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1, S085685-CCV1, S085757-CCV1, S086048-CCV1

Benzidine

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1, S085685-CCV1, S085757-CCV1, S086048-CCV1

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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:**1,2-Diphenylhydrazine/Azobenzene**

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1, S085685-CCV1, S086048-CCV1

Aniline

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1, S085685-CCV1, S085757-CCV1, S086048-CCV1

Benzidine

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1, S085685-CCV1, S085757-CCV1, S086048-CCV1

Bis(2-chloroisopropyl)ether

23D0395-01[PD-CP-00-040423], B336516-BLK1, B336516-BS1, B336516-BSD1, S086048-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:**2,4-Dinitrophenol**

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1, S085685-CCV1, S085757-CCV1, S086048-CCV1

2,4-Dinitrotoluene

23D0395-01[PD-CP-00-040423], 23D0395-02[PD-CP-01-040423], B336331-BLK1, B336331-BS1, B336331-BSD1, B336516-BLK1, B336516-BS1, B336516-BSD1, S085685-CCV1, S085757-CCV1, S086048-CCV1

4,6-Dinitro-2-methylphenol

23D0395-01[PD-CP-00-040423], B336516-BLK1, B336516-BS1, B336516-BSD1, S086048-CCV1

4-Nitrophenol

S086048-CCV1

Benzo(g,h,i)perylene

B336516-BLK1, B336516-BS1, B336516-BSD1, S085757-CCV1

Pentachloronitrobenzene

23D0395-01[PD-CP-00-040423], B336516-BLK1, B336516-BS1, B336516-BSD1, S085757-CCV1, S086048-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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0395-01

Sample Matrix: 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	4/10/23	4/10/23 11:34	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Chloromethane	ND	2.0	µg/L	1	R-05	SW-846 8260D	4/10/23	4/10/23 11:34	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1	L-04, MS-09, V-05	SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH

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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0395-01

Sample Matrix: 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	4/10/23	4/10/23 11:34	EEH
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Methyl Acetate	ND	1.0	µg/L	1	MS-09, V-05	SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	4/10/23	4/10/23 11:34	EEH
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	82.6	70-130							
Toluene-d8	97.0	70-130							
4-Bromofluorobenzene	99.9	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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0395-01

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Acenaphthylene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Acetophenone	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Aniline	ND	5.0	µg/L	1	V-05	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Anthracene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Benzidine	ND	20	µg/L	1	L-04, R-05, V-04, V-05	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Benzo(a)anthracene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Benzo(a)pyrene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Benzo(b)fluoranthene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Benzo(g,h,i)perylene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Benzo(k)fluoranthene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Benzoic Acid	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Bis(2-chloroethoxy)methane	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Bis(2-chloroethyl)ether	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1	V-05	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
4-Bromophenylphenylether	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Butylbenzylphthalate	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Carbazole	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
4-Chloroaniline	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
4-Chloro-3-methylphenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2-Chloronaphthalene	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2-Chlorophenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
4-Chlorophenylphenylether	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Chrysene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Dibenz(a,h)anthracene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Dibenzofuran	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Di-n-butylphthalate	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
1,2-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
1,3-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
1,4-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
3,3-Dichlorobenzidine	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2,4-Dichlorophenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Diethylphthalate	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2,4-Dimethylphenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Dimethylphthalate	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
4,6-Dinitro-2-methylphenol	ND	10	µg/L	1	V-06	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2,4-Dinitrophenol	ND	10	µg/L	1	V-06	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2,4-Dinitrotoluene	ND	10	µg/L	1	V-06	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2,6-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Di-n-octylphthalate	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L	1	V-05	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Fluoranthene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2

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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0395-01

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Fluorene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Hexachlorobenzene	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Hexachlorobutadiene	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Hexachlorocyclopentadiene	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Hexachloroethane	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Isophorone	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
1-Methylnaphthalene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2-Methylnaphthalene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2-Methylphenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
3/4-Methylphenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Naphthalene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2-Nitroaniline	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
3-Nitroaniline	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
4-Nitroaniline	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Nitrobenzene	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2-Nitrophenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
4-Nitrophenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
N-Nitrosodimethylamine	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
N-Nitrosodi-n-propylamine	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Pentachloronitrobenzene	ND	10	µg/L	1	V-06	SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Pentachlorophenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Phenanthrene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Phenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Pyrene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Pyridine	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2,4,5-Trichlorophenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
2,4,6-Trichlorophenol	ND	10	µg/L	1		SW-846 8270E	4/7/23	4/17/23 14:05	AR2
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
2-Fluorophenol	34.4	15-110						4/17/23 14:05	
Phenol-d6	23.3	15-110						4/17/23 14:05	
Nitrobenzene-d5	66.5	30-130						4/17/23 14:05	
2-Fluorobiphenyl	74.7	30-130						4/17/23 14:05	
2,4,6-Tribromophenol	94.2	15-110						4/17/23 14:05	
p-Terphenyl-d14	88.1	30-130						4/17/23 14:05	

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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0395-01

Sample Matrix: 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	41	0.19	µg/L	1	L-06	SW-846 8270E	4/5/23	4/6/23 14:56	SPF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,4-Dioxane-d8	26.4	15-110						4/6/23 14:56	

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0395-02

Sample Matrix: 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	4/7/23	4/8/23 13:40	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH

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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0395-02

Sample Matrix: 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	4/7/23	4/8/23 13:40	EEH
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Methyl Acetate	ND	1.0	µg/L	1	L-04, V-05	SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 13:40	EEH
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	89.4	70-130							
Toluene-d8	99.0	70-130							
4-Bromofluorobenzene	99.3	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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0395-02

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Acenaphthylene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Acetophenone	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Aniline	ND	4.8	µg/L	1	V-05	SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Anthracene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Benzidine	ND	19	µg/L	1	L-04, V-04, V-05	SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Benzo(a)anthracene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Benzo(a)pyrene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Benzo(b)fluoranthene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Benzo(g,h,i)perylene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Benzo(k)fluoranthene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Benzoic Acid	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Bis(2-chloroethoxy)methane	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Bis(2-chloroethyl)ether	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Bis(2-chloroisopropyl)ether	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Bis(2-Ethylhexyl)phthalate	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
4-Bromophenylphenylether	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Butylbenzylphthalate	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Carbazole	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
4-Chloroaniline	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
4-Chloro-3-methylphenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2-Chloronaphthalene	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2-Chlorophenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
4-Chlorophenylphenylether	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Chrysene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Dibenz(a,h)anthracene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Dibenzofuran	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Di-n-butylphthalate	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
1,2-Dichlorobenzene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
1,3-Dichlorobenzene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
1,4-Dichlorobenzene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
3,3-Dichlorobenzidine	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2,4-Dichlorophenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Diethylphthalate	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2,4-Dimethylphenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Dimethylphthalate	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
4,6-Dinitro-2-methylphenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2,4-Dinitrophenol	ND	9.6	µg/L	1	V-04, V-06	SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2,4-Dinitrotoluene	ND	9.6	µg/L	1	V-06	SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2,6-Dinitrotoluene	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Di-n-octylphthalate	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	9.6	µg/L	1	V-05	SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Fluoranthene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Fluorene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2

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: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0395-02

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Hexachlorobutadiene	ND	9.6	µg/L	1	L-04	SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Hexachlorocyclopentadiene	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Hexachloroethane	ND	9.6	µg/L	1	L-04	SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Indeno(1,2,3-cd)pyrene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Isophorone	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
1-Methylnaphthalene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2-Methylnaphthalene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2-Methylphenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
3/4-Methylphenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Naphthalene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2-Nitroaniline	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
3-Nitroaniline	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
4-Nitroaniline	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Nitrobenzene	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2-Nitrophenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
4-Nitrophenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
N-Nitrosodimethylamine	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
N-Nitrosodi-n-propylamine	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Pentachloronitrobenzene	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Pentachlorophenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Phenanthrene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Phenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Pyrene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Pyridine	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
1,2,4,5-Tetrachlorobenzene	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
1,2,4-Trichlorobenzene	ND	4.8	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2,4,5-Trichlorophenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
2,4,6-Trichlorophenol	ND	9.6	µg/L	1		SW-846 8270E	4/6/23	4/7/23 16:53	AR2
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
2-Fluorophenol	43.3	15-110						4/7/23 16:53	
Phenol-d6	29.4	15-110						4/7/23 16:53	
Nitrobenzene-d5	81.1	30-130						4/7/23 16:53	
2-Fluorobiphenyl	79.6	30-130						4/7/23 16:53	
2,4,6-Tribromophenol	92.2	15-110						4/7/23 16:53	
p-Terphenyl-d14	89.3	30-130						4/7/23 16:53	

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23D0395

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0395-02

Sample Matrix: 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	43	0.19	µg/L	1	L-06	SW-846 8270E	4/5/23	4/6/23 15:17	SPF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,4-Dioxane-d8	25.4	15-110						4/6/23 15:17	

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23D0395

Date Received: 4/5/2023

Field Sample #: ASF-CP-00-040423

Sampled: 4/4/2023 14:55

Sample ID: 23D0395-03

Sample Matrix: 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	44	0.19	µg/L	1	L-06	SW-846 8270E	4/5/23	4/6/23 15:37	SPF
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
1,4-Dioxane-d8	25.5		15-110					4/6/23 15:37	

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23D0395

Date Received: 4/5/2023

Field Sample #: ASF-CP-01-040423

Sampled: 4/4/2023 15:10

Sample ID: 23D0395-04

Sample Matrix: 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	43	0.19	µg/L	1	L-06	SW-846 8270E	4/5/23	4/6/23 15:57	SPF
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
1,4-Dioxane-d8	23.4		15-110				4/6/23 15:57		

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23D0395

Date Received: 4/5/2023

Field Sample #: TB-040423

Sampled: 4/4/2023 00:00

Sample ID: 23D0395-05

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	4/7/23	4/8/23 11:52	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH

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Project Location: Old Bethpage, New York

Sample Description:

Work Order: 23D0395

Date Received: 4/5/2023

Field Sample #: TB-040423

Sampled: 4/4/2023 00:00

Sample ID: 23D0395-05

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	4/7/23	4/8/23 11:52	EEH
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Methyl Acetate	ND	1.0	µg/L	1	L-04, V-05	SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	4/7/23	4/8/23 11:52	EEH
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	78.2	70-130							
Toluene-d8	96.4	70-130							
4-Bromofluorobenzene	99.9	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
23D0395-02 [PD-CP-01-040423]	B336477	5	5.00	04/07/23
23D0395-05 [TB-040423]	B336477	5	5.00	04/07/23

Prep Method: SW-846 5030B Analytical Method: SW-846 8260D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23D0395-01 [PD-CP-00-040423]	B336478	5	5.00	04/10/23

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23D0395-01 [PD-CP-00-040423]	B336330	1050	1.00	04/05/23
23D0395-02 [PD-CP-01-040423]	B336330	1040	1.00	04/05/23
23D0395-03 [ASF-CP-00-040423]	B336330	1040	1.00	04/05/23
23D0395-04 [ASF-CP-01-040423]	B336330	1050	1.00	04/05/23

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23D0395-02 [PD-CP-01-040423]	B336331	1040	1.00	04/06/23

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23D0395-01 [PD-CP-00-040423]	B336516	1000	1.00	04/07/23

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

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 B336477 - SW-846 5030B
Blank (B336477-BLK1)

Prepared: 04/07/23 Analyzed: 04/08/23

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
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
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
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
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

L-04, V-05

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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 B336477 - SW-846 5030B
Blank (B336477-BLK1)

Prepared: 04/07/23 Analyzed: 04/08/23

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							
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	20.4		µg/L	25.0		81.7	70-130			
Surrogate: Toluene-d8	24.5		µg/L	25.0		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	25.2		µg/L	25.0		101	70-130			

LCS (B336477-BS1)

Prepared: 04/07/23 Analyzed: 04/08/23

Acetone	89.7	50	µg/L	100		89.7	70-160			†
Acrylonitrile	9.41	5.0	µg/L	10.0		94.1	70-130			
tert-Amyl Methyl Ether (TAME)	9.06	0.50	µg/L	10.0		90.6	70-130			
Benzene	9.42	1.0	µg/L	10.0		94.2	70-130			
Bromobenzene	10.3	1.0	µg/L	10.0		103	70-130			
Bromochloromethane	10.5	1.0	µg/L	10.0		105	70-130			
Bromodichloromethane	10.4	0.50	µg/L	10.0		104	70-130			
Bromoform	11.5	1.0	µg/L	10.0		115	70-130			
Bromomethane	11.8	2.0	µg/L	10.0		118	40-160			†
2-Butanone (MEK)	106	20	µg/L	100		106	40-160			†
tert-Butyl Alcohol (TBA)	98.6	20	µg/L	100		98.6	40-160			†
n-Butylbenzene	9.63	1.0	µg/L	10.0		96.3	70-130			
sec-Butylbenzene	9.99	1.0	µg/L	10.0		99.9	70-130			
tert-Butylbenzene	9.79	1.0	µg/L	10.0		97.9	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.33	0.50	µg/L	10.0		93.3	70-130			
Carbon Disulfide	110	5.0	µg/L	100		110	70-130			
Carbon Tetrachloride	10.7	5.0	µg/L	10.0		107	70-130			
Chlorobenzene	10.8	1.0	µg/L	10.0		108	70-130			
Chlorodibromomethane	11.1	0.50	µg/L	10.0		111	70-130			
Chloroethane	11.9	2.0	µg/L	10.0		119	70-130			
Chloroform	9.49	2.0	µg/L	10.0		94.9	70-130			

V-20

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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 B336477 - SW-846 5030B										
LCS (B336477-BS1)										
Prepared: 04/07/23 Analyzed: 04/08/23										
Chloromethane	10.1	2.0	µg/L	10.0		101	40-160			†
2-Chlorotoluene	9.42	1.0	µg/L	10.0		94.2	70-130			
4-Chlorotoluene	10.2	1.0	µg/L	10.0		102	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	9.67	5.0	µg/L	10.0		96.7	70-130			
1,2-Dibromoethane (EDB)	10.8	0.50	µg/L	10.0		108	70-130			
Dibromomethane	10.3	1.0	µg/L	10.0		103	70-130			
1,2-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,3-Dichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130			
1,4-Dichlorobenzene	9.79	1.0	µg/L	10.0		97.9	70-130			
trans-1,4-Dichloro-2-butene	8.81	2.0	µg/L	10.0		88.1	70-130			
Dichlorodifluoromethane (Freon 12)	10.6	2.0	µg/L	10.0		106	40-160			†
1,1-Dichloroethane	9.94	1.0	µg/L	10.0		99.4	70-130			
1,2-Dichloroethane	9.67	1.0	µg/L	10.0		96.7	70-130			
1,1-Dichloroethylene	10.2	1.0	µg/L	10.0		102	70-130			
cis-1,2-Dichloroethylene	9.85	1.0	µg/L	10.0		98.5	70-130			
trans-1,2-Dichloroethylene	9.66	1.0	µg/L	10.0		96.6	70-130			
1,2-Dichloropropane	9.77	1.0	µg/L	10.0		97.7	70-130			
1,3-Dichloropropane	10.2	0.50	µg/L	10.0		102	70-130			
2,2-Dichloropropane	9.63	1.0	µg/L	10.0		96.3	40-130			†
1,1-Dichloropropene	10.0	2.0	µg/L	10.0		100	70-130			
cis-1,3-Dichloropropene	10.0	0.50	µg/L	10.0		100	70-130			
trans-1,3-Dichloropropene	9.62	0.50	µg/L	10.0		96.2	70-130			
Diethyl Ether	10.2	2.0	µg/L	10.0		102	70-130			
Diisopropyl Ether (DIPE)	9.91	0.50	µg/L	10.0		99.1	70-130			
1,4-Dioxane	105	50	µg/L	100		105	40-130			†
Ethylbenzene	10.6	1.0	µg/L	10.0		106	70-130			
Hexachlorobutadiene	10.3	0.60	µg/L	10.0		103	70-130			
2-Hexanone (MBK)	103	10	µg/L	100		103	70-160			†
Isopropylbenzene (Cumene)	10.4	1.0	µg/L	10.0		104	70-130			
p-Isopropyltoluene (p-Cymene)	9.77	1.0	µg/L	10.0		97.7	70-130			
Methyl Acetate	6.65	1.0	µg/L	10.0		66.5	* 70-130			L-04, V-05
Methyl tert-Butyl Ether (MTBE)	9.71	1.0	µg/L	10.0		97.1	70-130			
Methyl Cyclohexane	9.92	1.0	µg/L	10.0		99.2	70-130			
Methylene Chloride	10.0	5.0	µg/L	10.0		100	70-130			
4-Methyl-2-pentanone (MIBK)	104	10	µg/L	100		104	70-160			†
Naphthalene	9.64	2.0	µg/L	10.0		96.4	40-130			†
n-Propylbenzene	10.3	1.0	µg/L	10.0		103	70-130			
Styrene	10.6	1.0	µg/L	10.0		106	70-130			
1,1,1,2-Tetrachloroethane	11.1	1.0	µg/L	10.0		111	70-130			
1,1,2,2-Tetrachloroethane	10.8	0.50	µg/L	10.0		108	70-130			
Tetrachloroethylene	10.6	1.0	µg/L	10.0		106	70-130			
Tetrahydrofuran	9.89	10	µg/L	10.0		98.9	70-130			
Toluene	10.1	1.0	µg/L	10.0		101	70-130			
1,2,3-Trichlorobenzene	10.2	5.0	µg/L	10.0		102	70-130			
1,2,4-Trichlorobenzene	9.51	1.0	µg/L	10.0		95.1	70-130			
1,3,5-Trichlorobenzene	9.92	1.0	µg/L	10.0		99.2	70-130			
1,1,1-Trichloroethane	10.4	1.0	µg/L	10.0		104	70-130			
1,1,2-Trichloroethane	10.6	1.0	µg/L	10.0		106	70-130			
Trichloroethylene	10.5	1.0	µg/L	10.0		105	70-130			
Trichlorofluoromethane (Freon 11)	10.9	2.0	µg/L	10.0		109	70-130			
1,2,3-Trichloropropane	10.6	2.0	µg/L	10.0		106	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 B336477 - SW-846 5030B										
LCS (B336477-BS1)				Prepared: 04/07/23 Analyzed: 04/08/23						
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.6	1.0	µg/L	10.0		106	70-130			
1,2,4-Trimethylbenzene	9.77	1.0	µg/L	10.0		97.7	70-130			
1,3,5-Trimethylbenzene	10.2	1.0	µg/L	10.0		102	70-130			
Vinyl Chloride	16.2	2.0	µg/L	10.0		162	* 40-160			L-06, V-06 †
m+p Xylene	20.9	2.0	µg/L	20.0		104	70-130			
o-Xylene	10.6	1.0	µg/L	10.0		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	22.8		µg/L	25.0		91.3	70-130			
Surrogate: Toluene-d8	24.6		µg/L	25.0		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	25.4		µg/L	25.0		102	70-130			
LCS Dup (B336477-BSD1)				Prepared: 04/07/23 Analyzed: 04/08/23						
Acetone	90.6	50	µg/L	100		90.6	70-160	1.01	25	†
Acrylonitrile	9.88	5.0	µg/L	10.0		98.8	70-130	4.87	25	
tert-Amyl Methyl Ether (TAME)	8.99	0.50	µg/L	10.0		89.9	70-130	0.776	25	
Benzene	9.76	1.0	µg/L	10.0		97.6	70-130	3.55	25	
Bromobenzene	10.0	1.0	µg/L	10.0		100	70-130	2.65	25	
Bromochloromethane	10.2	1.0	µg/L	10.0		102	70-130	2.80	25	
Bromodichloromethane	10.3	0.50	µg/L	10.0		103	70-130	0.867	25	
Bromoform	11.2	1.0	µg/L	10.0		112	70-130	2.47	25	
Bromomethane	11.8	2.0	µg/L	10.0		118	40-160	0.423	25	†
2-Butanone (MEK)	101	20	µg/L	100		101	40-160	4.40	25	†
tert-Butyl Alcohol (TBA)	104	20	µg/L	100		104	40-160	5.33	25	†
n-Butylbenzene	9.64	1.0	µg/L	10.0		96.4	70-130	0.104	25	
sec-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130	2.57	25	
tert-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130	4.10	25	
tert-Butyl Ethyl Ether (TBEE)	9.25	0.50	µg/L	10.0		92.5	70-130	0.861	25	
Carbon Disulfide	113	5.0	µg/L	100		113	70-130	3.26	25	
Carbon Tetrachloride	11.1	5.0	µg/L	10.0		111	70-130	3.59	25	
Chlorobenzene	10.8	1.0	µg/L	10.0		108	70-130	0.0929	25	
Chlorodibromomethane	10.7	0.50	µg/L	10.0		107	70-130	3.95	25	
Chloroethane	12.1	2.0	µg/L	10.0		121	70-130	1.59	25	V-20
Chloroform	9.40	2.0	µg/L	10.0		94.0	70-130	0.953	25	
Chloromethane	10.3	2.0	µg/L	10.0		103	40-160	1.86	25	†
2-Chlorotoluene	9.67	1.0	µg/L	10.0		96.7	70-130	2.62	25	
4-Chlorotoluene	10.2	1.0	µg/L	10.0		102	70-130	0.687	25	
1,2-Dibromo-3-chloropropane (DBCP)	9.83	5.0	µg/L	10.0		98.3	70-130	1.64	25	
1,2-Dibromoethane (EDB)	10.6	0.50	µg/L	10.0		106	70-130	2.71	25	
Dibromomethane	10.2	1.0	µg/L	10.0		102	70-130	1.07	25	
1,2-Dichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130	0.888	25	
1,3-Dichlorobenzene	9.99	1.0	µg/L	10.0		99.9	70-130	0.400	25	
1,4-Dichlorobenzene	9.64	1.0	µg/L	10.0		96.4	70-130	1.54	25	
trans-1,4-Dichloro-2-butene	9.07	2.0	µg/L	10.0		90.7	70-130	2.91	25	
Dichlorodifluoromethane (Freon 12)	11.2	2.0	µg/L	10.0		112	40-160	5.86	25	†
1,1-Dichloroethane	9.88	1.0	µg/L	10.0		98.8	70-130	0.605	25	
1,2-Dichloroethane	9.39	1.0	µg/L	10.0		93.9	70-130	2.94	25	
1,1-Dichloroethylene	10.9	1.0	µg/L	10.0		109	70-130	6.54	25	
cis-1,2-Dichloroethylene	9.78	1.0	µg/L	10.0		97.8	70-130	0.713	25	
trans-1,2-Dichloroethylene	10.0	1.0	µg/L	10.0		100	70-130	3.66	25	
1,2-Dichloropropane	9.70	1.0	µg/L	10.0		97.0	70-130	0.719	25	
1,3-Dichloropropane	10.1	0.50	µg/L	10.0		101	70-130	1.09	25	
2,2-Dichloropropane	10.1	1.0	µg/L	10.0		101	40-130	4.47	25	†
1,1-Dichloropropene	10.2	2.0	µg/L	10.0		102	70-130	2.17	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 B336477 - SW-846 5030B
LCS Dup (B336477-BSD1)

Prepared: 04/07/23 Analyzed: 04/08/23

cis-1,3-Dichloropropene	9.94	0.50	µg/L	10.0		99.4	70-130	0.802	25	
trans-1,3-Dichloropropene	9.66	0.50	µg/L	10.0		96.6	70-130	0.415	25	
Diethyl Ether	10.1	2.0	µg/L	10.0		101	70-130	0.394	25	
Diisopropyl Ether (DIPE)	9.92	0.50	µg/L	10.0		99.2	70-130	0.101	25	
1,4-Dioxane	99.4	50	µg/L	100		99.4	40-130	5.92	50	† ‡
Ethylbenzene	10.6	1.0	µg/L	10.0		106	70-130	0.755	25	
Hexachlorobutadiene	10.7	0.60	µg/L	10.0		107	70-130	3.90	25	
2-Hexanone (MBK)	102	10	µg/L	100		102	70-160	1.11	25	†
Isopropylbenzene (Cumene)	10.6	1.0	µg/L	10.0		106	70-130	1.14	25	
p-Isopropyltoluene (p-Cymene)	10.1	1.0	µg/L	10.0		101	70-130	3.62	25	
Methyl Acetate	6.61	1.0	µg/L	10.0		66.1	* 70-130	0.603	25	L-04, V-05
Methyl tert-Butyl Ether (MTBE)	9.12	1.0	µg/L	10.0		91.2	70-130	6.27	25	
Methyl Cyclohexane	10.4	1.0	µg/L	10.0		104	70-130	5.11	25	
Methylene Chloride	10.2	5.0	µg/L	10.0		102	70-130	1.19	25	
4-Methyl-2-pentanone (MIBK)	102	10	µg/L	100		102	70-160	1.08	25	†
Naphthalene	9.76	2.0	µg/L	10.0		97.6	40-130	1.24	25	†
n-Propylbenzene	10.5	1.0	µg/L	10.0		105	70-130	1.93	25	
Styrene	10.6	1.0	µg/L	10.0		106	70-130	0.0944	25	
1,1,1,2-Tetrachloroethane	11.0	1.0	µg/L	10.0		110	70-130	0.544	25	
1,1,2,2-Tetrachloroethane	10.8	0.50	µg/L	10.0		108	70-130	0.185	25	
Tetrachloroethylene	10.6	1.0	µg/L	10.0		106	70-130	0.282	25	
Tetrahydrofuran	10.6	10	µg/L	10.0		106	70-130	6.55	25	
Toluene	10.2	1.0	µg/L	10.0		102	70-130	1.57	25	
1,2,3-Trichlorobenzene	10.2	5.0	µg/L	10.0		102	70-130	0.0979	25	
1,2,4-Trichlorobenzene	9.66	1.0	µg/L	10.0		96.6	70-130	1.56	25	
1,3,5-Trichlorobenzene	9.94	1.0	µg/L	10.0		99.4	70-130	0.201	25	
1,1,1-Trichloroethane	10.6	1.0	µg/L	10.0		106	70-130	2.57	25	
1,1,2-Trichloroethane	10.1	1.0	µg/L	10.0		101	70-130	5.40	25	
Trichloroethylene	10.1	1.0	µg/L	10.0		101	70-130	3.88	25	
Trichlorofluoromethane (Freon 11)	11.1	2.0	µg/L	10.0		111	70-130	1.63	25	
1,2,3-Trichloropropane	10.4	2.0	µg/L	10.0		104	70-130	1.53	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.4	1.0	µg/L	10.0		114	70-130	7.28	25	
1,2,4-Trimethylbenzene	9.88	1.0	µg/L	10.0		98.8	70-130	1.12	25	
1,3,5-Trimethylbenzene	10.2	1.0	µg/L	10.0		102	70-130	0.784	25	
Vinyl Chloride	16.3	2.0	µg/L	10.0		163	* 40-160	0.552	25	L-06, V-06 †
m+p Xylene	21.0	2.0	µg/L	20.0		105	70-130	0.715	25	
o-Xylene	10.6	1.0	µg/L	10.0		106	70-130	0.755	25	
Surrogate: 1,2-Dichloroethane-d4	22.9		µg/L	25.0		91.5	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	25.4		µg/L	25.0		102	70-130			

Batch B336478 - SW-846 5030B
Blank (B336478-BLK1)

Prepared: 04/07/23 Analyzed: 04/10/23

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

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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	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch B336478 - SW-846 5030B
Blank (B336478-BLK1)

Prepared: 04/07/23 Analyzed: 04/10/23

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							
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							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							R-05
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							L-04, 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							V-05
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							
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	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
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Batch B336478 - SW-846 5030B
Blank (B336478-BLK1)

Prepared: 04/07/23 Analyzed: 04/10/23

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	20.6		µg/L	25.0		82.2	70-130			
Surrogate: Toluene-d8	24.4		µg/L	25.0		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	25.4		µg/L	25.0		101	70-130			

LCS (B336478-BS1)

Prepared: 04/07/23 Analyzed: 04/10/23

Acetone	93.8	50	µg/L	100		93.8	70-160			†
Acrylonitrile	9.92	5.0	µg/L	10.0		99.2	70-130			
tert-Amyl Methyl Ether (TAME)	10.1	0.50	µg/L	10.0		101	70-130			
Benzene	10.0	1.0	µg/L	10.0		100	70-130			
Bromobenzene	10.7	1.0	µg/L	10.0		107	70-130			
Bromochloromethane	11.2	1.0	µg/L	10.0		112	70-130			
Bromodichloromethane	11.1	0.50	µg/L	10.0		111	70-130			
Bromoform	12.1	1.0	µg/L	10.0		121	70-130			
Bromomethane	13.8	2.0	µg/L	10.0		138	40-160	V-20		†
2-Butanone (MEK)	101	20	µg/L	100		101	40-160			†
tert-Butyl Alcohol (TBA)	103	20	µg/L	100		103	40-160			†
n-Butylbenzene	10.3	1.0	µg/L	10.0		103	70-130			
sec-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130			
tert-Butylbenzene	9.91	1.0	µg/L	10.0		99.1	70-130			
tert-Butyl Ethyl Ether (TBEE)	10.3	0.50	µg/L	10.0		103	70-130			
Carbon Disulfide	117	5.0	µg/L	100		117	70-130			
Carbon Tetrachloride	11.7	5.0	µg/L	10.0		117	70-130			
Chlorobenzene	10.8	1.0	µg/L	10.0		108	70-130			
Chlorodibromomethane	11.6	0.50	µg/L	10.0		116	70-130			
Chloroethane	13.1	2.0	µg/L	10.0		131	70-130		L-02, V-20	
Chloroform	10.1	2.0	µg/L	10.0		101	70-130			
Chloromethane	9.99	2.0	µg/L	10.0		99.9	40-160		R-05	†
2-Chlorotoluene	9.71	1.0	µg/L	10.0		97.1	70-130			
4-Chlorotoluene	10.6	1.0	µg/L	10.0		106	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	10.1	5.0	µg/L	10.0		101	70-130			
1,2-Dibromoethane (EDB)	10.7	0.50	µg/L	10.0		107	70-130			
Dibromomethane	10.6	1.0	µg/L	10.0		106	70-130			
1,2-Dichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130			
1,3-Dichlorobenzene	9.99	1.0	µg/L	10.0		99.9	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 B336478 - SW-846 5030B										
LCS (B336478-BS1)					Prepared: 04/07/23 Analyzed: 04/10/23					
1,4-Dichlorobenzene	9.93	1.0	µg/L	10.0		99.3	70-130			
trans-1,4-Dichloro-2-butene	6.47	2.0	µg/L	10.0		64.7 *	70-130			L-04, V-05
Dichlorodifluoromethane (Freon 12)	11.9	2.0	µg/L	10.0		119	40-160			†
1,1-Dichloroethane	10.5	1.0	µg/L	10.0		105	70-130			
1,2-Dichloroethane	10.0	1.0	µg/L	10.0		100	70-130			
1,1-Dichloroethylene	11.1	1.0	µg/L	10.0		111	70-130			
cis-1,2-Dichloroethylene	10.5	1.0	µg/L	10.0		105	70-130			
trans-1,2-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130			
1,2-Dichloropropane	9.99	1.0	µg/L	10.0		99.9	70-130			
1,3-Dichloropropane	10.4	0.50	µg/L	10.0		104	70-130			
2,2-Dichloropropane	10.9	1.0	µg/L	10.0		109	40-130			†
1,1-Dichloropropene	10.8	2.0	µg/L	10.0		108	70-130			
cis-1,3-Dichloropropene	10.8	0.50	µg/L	10.0		108	70-130			
trans-1,3-Dichloropropene	10.3	0.50	µg/L	10.0		103	70-130			
Diethyl Ether	11.0	2.0	µg/L	10.0		110	70-130			
Diisopropyl Ether (DIPE)	11.1	0.50	µg/L	10.0		111	70-130			
1,4-Dioxane	93.0	50	µg/L	100		93.0	40-130			†
Ethylbenzene	10.6	1.0	µg/L	10.0		106	70-130			
Hexachlorobutadiene	10.8	0.60	µg/L	10.0		108	70-130			
2-Hexanone (MBK)	107	10	µg/L	100		107	70-160			†
Isopropylbenzene (Cumene)	10.6	1.0	µg/L	10.0		106	70-130			
p-Isopropyltoluene (p-Cymene)	10.2	1.0	µg/L	10.0		102	70-130			
Methyl Acetate	7.74	1.0	µg/L	10.0		77.4	70-130			V-05
Methyl tert-Butyl Ether (MTBE)	10.3	1.0	µg/L	10.0		103	70-130			
Methyl Cyclohexane	10.8	1.0	µg/L	10.0		108	70-130			
Methylene Chloride	10.6	5.0	µg/L	10.0		106	70-130			
4-Methyl-2-pentanone (MIBK)	108	10	µg/L	100		108	70-160			†
Naphthalene	9.86	2.0	µg/L	10.0		98.6	40-130			†
n-Propylbenzene	10.6	1.0	µg/L	10.0		106	70-130			
Styrene	10.8	1.0	µg/L	10.0		108	70-130			
1,1,1,2-Tetrachloroethane	11.4	1.0	µg/L	10.0		114	70-130			
1,1,2,2-Tetrachloroethane	9.14	0.50	µg/L	10.0		91.4	70-130			
Tetrachloroethylene	11.2	1.0	µg/L	10.0		112	70-130			
Tetrahydrofuran	11.0	10	µg/L	10.0		110	70-130			
Toluene	10.3	1.0	µg/L	10.0		103	70-130			
1,2,3-Trichlorobenzene	10.8	5.0	µg/L	10.0		108	70-130			
1,2,4-Trichlorobenzene	9.98	1.0	µg/L	10.0		99.8	70-130			
1,3,5-Trichlorobenzene	9.94	1.0	µg/L	10.0		99.4	70-130			
1,1,1-Trichloroethane	11.1	1.0	µg/L	10.0		111	70-130			
1,1,2-Trichloroethane	10.8	1.0	µg/L	10.0		108	70-130			
Trichloroethylene	11.6	1.0	µg/L	10.0		116	70-130			
Trichlorofluoromethane (Freon 11)	11.5	2.0	µg/L	10.0		115	70-130			
1,2,3-Trichloropropane	10.5	2.0	µg/L	10.0		105	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.6	1.0	µg/L	10.0		116	70-130			
1,2,4-Trimethylbenzene	9.73	1.0	µg/L	10.0		97.3	70-130			
1,3,5-Trimethylbenzene	10.4	1.0	µg/L	10.0		104	70-130			
Vinyl Chloride	18.4	2.0	µg/L	10.0		184 *	40-160			L-06, V-06 †
m+p Xylene	21.2	2.0	µg/L	20.0		106	70-130			
o-Xylene	10.6	1.0	µg/L	10.0		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.2		µg/L	25.0		96.8	70-130			
Surrogate: Toluene-d8	24.7		µg/L	25.0		98.9	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 B336478 - SW-846 5030B										
LCS (B336478-BS1)										
					Prepared: 04/07/23 Analyzed: 04/10/23					
Surrogate: 4-Bromofluorobenzene	25.6		µg/L	25.0		103	70-130			
LCS Dup (B336478-BS1)										
					Prepared: 04/07/23 Analyzed: 04/10/23					
Acetone	93.8	50	µg/L	100		93.8	70-160	0.0107	25	†
Acrylonitrile	9.90	5.0	µg/L	10.0		99.0	70-130	0.202	25	
tert-Amyl Methyl Ether (TAME)	9.96	0.50	µg/L	10.0		99.6	70-130	1.59	25	
Benzene	10.7	1.0	µg/L	10.0		107	70-130	6.58	25	
Bromobenzene	10.6	1.0	µg/L	10.0		106	70-130	1.32	25	
Bromochloromethane	11.7	1.0	µg/L	10.0		117	70-130	4.46	25	
Bromodichloromethane	11.3	0.50	µg/L	10.0		113	70-130	1.96	25	
Bromoform	11.9	1.0	µg/L	10.0		119	70-130	1.67	25	
Bromomethane	14.9	2.0	µg/L	10.0		149	40-160	7.82	25	V-20 †
2-Butanone (MEK)	99.0	20	µg/L	100		99.0	40-160	1.82	25	†
tert-Butyl Alcohol (TBA)	96.2	20	µg/L	100		96.2	40-160	6.60	25	†
n-Butylbenzene	10.9	1.0	µg/L	10.0		109	70-130	6.32	25	
sec-Butylbenzene	10.8	1.0	µg/L	10.0		108	70-130	6.19	25	
tert-Butylbenzene	10.6	1.0	µg/L	10.0		106	70-130	6.26	25	
tert-Butyl Ethyl Ether (TBEE)	10.4	0.50	µg/L	10.0		104	70-130	0.675	25	
Carbon Disulfide	123	5.0	µg/L	100		123	70-130	4.39	25	
Carbon Tetrachloride	12.5	5.0	µg/L	10.0		125	70-130	6.63	25	
Chlorobenzene	11.1	1.0	µg/L	10.0		111	70-130	2.84	25	
Chlorodibromomethane	12.1	0.50	µg/L	10.0		121	70-130	3.54	25	
Chloroethane	14.6	2.0	µg/L	10.0		146	* 70-130	10.8	25	L-02, V-20
Chloroform	10.6	2.0	µg/L	10.0		106	70-130	5.31	25	
Chloromethane	14.0	2.0	µg/L	10.0		140	40-160	33.4	* 25	R-05 †
2-Chlorotoluene	9.66	1.0	µg/L	10.0		96.6	70-130	0.516	25	
4-Chlorotoluene	10.8	1.0	µg/L	10.0		108	70-130	1.41	25	
1,2-Dibromo-3-chloropropane (DBCP)	9.61	5.0	µg/L	10.0		96.1	70-130	4.97	25	
1,2-Dibromoethane (EDB)	10.8	0.50	µg/L	10.0		108	70-130	0.651	25	
Dibromomethane	11.0	1.0	µg/L	10.0		110	70-130	3.97	25	
1,2-Dichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	3.32	25	
1,3-Dichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	4.21	25	
1,4-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	4.05	25	
trans-1,4-Dichloro-2-butene	5.57	2.0	µg/L	10.0		55.7	* 70-130	15.0	25	L-04, V-05
Dichlorodifluoromethane (Freon 12)	13.2	2.0	µg/L	10.0		132	40-160	10.3	25	†
1,1-Dichloroethane	11.0	1.0	µg/L	10.0		110	70-130	4.76	25	
1,2-Dichloroethane	9.97	1.0	µg/L	10.0		99.7	70-130	0.500	25	
1,1-Dichloroethylene	11.6	1.0	µg/L	10.0		116	70-130	4.58	25	
cis-1,2-Dichloroethylene	11.1	1.0	µg/L	10.0		111	70-130	5.27	25	
trans-1,2-Dichloroethylene	11.3	1.0	µg/L	10.0		113	70-130	8.31	25	
1,2-Dichloropropane	10.2	1.0	µg/L	10.0		102	70-130	2.28	25	
1,3-Dichloropropane	10.3	0.50	µg/L	10.0		103	70-130	0.867	25	
2,2-Dichloropropane	11.8	1.0	µg/L	10.0		118	40-130	7.39	25	†
1,1-Dichloropropene	11.6	2.0	µg/L	10.0		116	70-130	7.60	25	
cis-1,3-Dichloropropene	10.7	0.50	µg/L	10.0		107	70-130	0.930	25	
trans-1,3-Dichloropropene	10.3	0.50	µg/L	10.0		103	70-130	0.583	25	
Diethyl Ether	10.7	2.0	µg/L	10.0		107	70-130	2.30	25	
Diisopropyl Ether (DIPE)	11.1	0.50	µg/L	10.0		111	70-130	0.630	25	
1,4-Dioxane	87.9	50	µg/L	100		87.9	40-130	5.64	50	† ‡
Ethylbenzene	11.0	1.0	µg/L	10.0		110	70-130	2.96	25	
Hexachlorobutadiene	12.0	0.60	µg/L	10.0		120	70-130	9.82	25	
2-Hexanone (MBK)	102	10	µg/L	100		102	70-160	4.87	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 B336478 - SW-846 5030B
LCS Dup (B336478-BSD1)

Prepared: 04/07/23 Analyzed: 04/10/23

Isopropylbenzene (Cumene)	11.1	1.0	µg/L	10.0		111	70-130	4.62	25	
p-Isopropyltoluene (p-Cymene)	10.8	1.0	µg/L	10.0		108	70-130	6.08	25	
Methyl Acetate	6.90	1.0	µg/L	10.0		69.0	* 70-130	11.5	25	L-07, V-05
Methyl tert-Butyl Ether (MTBE)	10.3	1.0	µg/L	10.0		103	70-130	0.777	25	
Methyl Cyclohexane	11.4	1.0	µg/L	10.0		114	70-130	5.22	25	
Methylene Chloride	11.6	5.0	µg/L	10.0		116	70-130	8.83	25	
4-Methyl-2-pentanone (MIBK)	105	10	µg/L	100		105	70-160	3.15	25	†
Naphthalene	9.72	2.0	µg/L	10.0		97.2	40-130	1.43	25	†
n-Propylbenzene	11.2	1.0	µg/L	10.0		112	70-130	5.32	25	
Styrene	11.0	1.0	µg/L	10.0		110	70-130	1.75	25	
1,1,1,2-Tetrachloroethane	11.4	1.0	µg/L	10.0		114	70-130	0.175	25	
1,1,2,2-Tetrachloroethane	9.37	0.50	µg/L	10.0		93.7	70-130	2.49	25	
Tetrachloroethylene	11.6	1.0	µg/L	10.0		116	70-130	4.13	25	
Tetrahydrofuran	11.0	10	µg/L	10.0		110	70-130	0.00	25	
Toluene	10.9	1.0	µg/L	10.0		109	70-130	5.36	25	
1,2,3-Trichlorobenzene	10.7	5.0	µg/L	10.0		107	70-130	1.49	25	
1,2,4-Trichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130	0.997	25	
1,3,5-Trichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130	5.57	25	
1,1,1-Trichloroethane	11.7	1.0	µg/L	10.0		117	70-130	5.54	25	
1,1,2-Trichloroethane	10.6	1.0	µg/L	10.0		106	70-130	2.24	25	
Trichloroethylene	11.9	1.0	µg/L	10.0		119	70-130	2.56	25	
Trichlorofluoromethane (Freon 11)	12.5	2.0	µg/L	10.0		125	70-130	8.49	25	
1,2,3-Trichloropropane	10.2	2.0	µg/L	10.0		102	70-130	3.09	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12.0	1.0	µg/L	10.0		120	70-130	3.29	25	
1,2,4-Trimethylbenzene	10.3	1.0	µg/L	10.0		103	70-130	5.79	25	
1,3,5-Trimethylbenzene	10.9	1.0	µg/L	10.0		109	70-130	4.49	25	
Vinyl Chloride	19.8	2.0	µg/L	10.0		198	* 40-160	7.65	25	L-06, V-06 †
m+p Xylene	22.3	2.0	µg/L	20.0		112	70-130	5.00	25	
o-Xylene	11.1	1.0	µg/L	10.0		111	70-130	4.06	25	
Surrogate: 1,2-Dichloroethane-d4	24.3		µg/L	25.0		97.3	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	25.7		µg/L	25.0		103	70-130			

Matrix Spike (B336478-MS1)
Source: 23D0395-01

Prepared: 04/07/23 Analyzed: 04/10/23

Acetone	86.6	50	µg/L	100	ND	86.6	70-130			
Acrylonitrile	8.10	5.0	µg/L	10.0	ND	81.0	70-130			
tert-Amyl Methyl Ether (TAME)	9.28	0.50	µg/L	10.0	ND	92.8	70-130			
Benzene	10.3	1.0	µg/L	10.0	ND	103	70-130			
Bromobenzene	10.5	1.0	µg/L	10.0	ND	105	70-130			
Bromochloromethane	11.7	1.0	µg/L	10.0	ND	117	70-130			
Bromodichloromethane	10.7	0.50	µg/L	10.0	ND	107	70-130			
Bromoform	11.4	1.0	µg/L	10.0	ND	114	70-130			
Bromomethane	12.5	2.0	µg/L	10.0	ND	125	70-130			V-20
2-Butanone (MEK)	97.3	20	µg/L	100	ND	97.3	70-130			
tert-Butyl Alcohol (TBA)	82.9	20	µg/L	100	ND	82.9	70-130			
n-Butylbenzene	9.70	1.0	µg/L	10.0	ND	97.0	70-130			
sec-Butylbenzene	10.6	1.0	µg/L	10.0	ND	106	70-130			
tert-Butylbenzene	10.5	1.0	µg/L	10.0	ND	105	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.96	0.50	µg/L	10.0	ND	99.6	70-130			
Carbon Disulfide	110	5.0	µg/L	100	ND	110	70-130			
Carbon Tetrachloride	12.0	5.0	µg/L	10.0	ND	120	70-130			
Chlorobenzene	11.0	1.0	µg/L	10.0	ND	110	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 B336478 - SW-846 5030B										
Matrix Spike (B336478-MS1)	Source: 23D0395-01			Prepared: 04/07/23 Analyzed: 04/10/23						
Chlorodibromomethane	11.3	0.50	µg/L	10.0	ND	113	70-130			
Chloroethane	13.2	2.0	µg/L	10.0	ND	132	* 70-130			L-02, V-20
Chloroform	10.3	2.0	µg/L	10.0	ND	103	70-130			
Chloromethane	8.64	2.0	µg/L	10.0	ND	86.4	70-130			R-05
2-Chlorotoluene	9.89	1.0	µg/L	10.0	ND	98.9	70-130			
4-Chlorotoluene	10.5	1.0	µg/L	10.0	ND	105	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	8.46	5.0	µg/L	10.0	ND	84.6	70-130			
1,2-Dibromoethane (EDB)	10.4	0.50	µg/L	10.0	ND	104	70-130			
Dibromomethane	10.6	1.0	µg/L	10.0	ND	106	70-130			
1,2-Dichlorobenzene	10.4	1.0	µg/L	10.0	ND	104	70-130			
1,3-Dichlorobenzene	10.4	1.0	µg/L	10.0	ND	104	70-130			
1,4-Dichlorobenzene	10.4	1.0	µg/L	10.0	ND	104	70-130			
trans-1,4-Dichloro-2-butene	4.87	2.0	µg/L	10.0	ND	48.7	* 70-130			L-04, MS-09, V-05
Dichlorodifluoromethane (Freon 12)	11.9	2.0	µg/L	10.0	ND	119	70-130			
1,1-Dichloroethane	10.2	1.0	µg/L	10.0	ND	102	70-130			
1,2-Dichloroethane	9.83	1.0	µg/L	10.0	ND	98.3	70-130			
1,1-Dichloroethylene	10.3	1.0	µg/L	10.0	ND	103	70-130			
cis-1,2-Dichloroethylene	11.0	1.0	µg/L	10.0	ND	110	70-130			
trans-1,2-Dichloroethylene	9.36	1.0	µg/L	10.0	ND	93.6	70-130			
1,2-Dichloropropane	10.5	1.0	µg/L	10.0	ND	105	70-130			
1,3-Dichloropropane	10.6	0.50	µg/L	10.0	ND	106	70-130			
2,2-Dichloropropane	9.21	1.0	µg/L	10.0	ND	92.1	70-130			
1,1-Dichloropropene	10.8	2.0	µg/L	10.0	ND	108	70-130			
cis-1,3-Dichloropropene	9.65	0.50	µg/L	10.0	ND	96.5	70-130			
trans-1,3-Dichloropropene	8.97	0.50	µg/L	10.0	ND	89.7	70-130			
Diethyl Ether	10.4	2.0	µg/L	10.0	ND	104	70-130			
Diisopropyl Ether (DIPE)	10.6	0.50	µg/L	10.0	ND	106	70-130			
1,4-Dioxane	128	50	µg/L	100	ND	128	70-130			
Ethylbenzene	10.8	1.0	µg/L	10.0	ND	108	70-130			
Hexachlorobutadiene	10.0	0.60	µg/L	10.0	ND	100	70-130			
2-Hexanone (MBK)	98.8	10	µg/L	100	ND	98.8	70-130			
Isopropylbenzene (Cumene)	10.8	1.0	µg/L	10.0	ND	108	70-130			
p-Isopropyltoluene (p-Cymene)	10.4	1.0	µg/L	10.0	ND	104	70-130			
Methyl Acetate	5.53	1.0	µg/L	10.0	ND	55.3	* 70-130			MS-09, V-05
Methyl tert-Butyl Ether (MTBE)	8.83	1.0	µg/L	10.0	ND	88.3	70-130			
Methyl Cyclohexane	10.6	1.0	µg/L	10.0	ND	106	70-130			
Methylene Chloride	9.76	5.0	µg/L	10.0	ND	97.6	70-130			
4-Methyl-2-pentanone (MIBK)	103	10	µg/L	100	ND	103	70-130			
Naphthalene	7.76	2.0	µg/L	10.0	ND	77.6	70-130			
n-Propylbenzene	10.5	1.0	µg/L	10.0	ND	105	70-130			
Styrene	10.8	1.0	µg/L	10.0	ND	108	70-130			
1,1,1,2-Tetrachloroethane	11.2	1.0	µg/L	10.0	ND	112	70-130			
1,1,2,2-Tetrachloroethane	10.0	0.50	µg/L	10.0	ND	100	70-130			
Tetrachloroethylene	11.5	1.0	µg/L	10.0	ND	115	70-130			
Tetrahydrofuran	11.4	10	µg/L	10.0	ND	114	70-130			
Toluene	10.8	1.0	µg/L	10.0	ND	108	70-130			
1,2,3-Trichlorobenzene	8.93	5.0	µg/L	10.0	ND	89.3	70-130			
1,2,4-Trichlorobenzene	8.89	1.0	µg/L	10.0	ND	88.9	70-130			
1,3,5-Trichlorobenzene	9.42	1.0	µg/L	10.0	ND	94.2	70-130			
1,1,1-Trichloroethane	11.3	1.0	µg/L	10.0	ND	113	70-130			
1,1,2-Trichloroethane	10.6	1.0	µg/L	10.0	ND	106	70-130			
Trichloroethylene	11.1	1.0	µg/L	10.0	ND	111	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 B336478 - SW-846 5030B										
Matrix Spike (B336478-MS1)	Source: 23D0395-01			Prepared: 04/07/23 Analyzed: 04/10/23						
Trichlorofluoromethane (Freon 11)	12.2	2.0	µg/L	10.0	ND	122	70-130			
1,2,3-Trichloropropane	9.98	2.0	µg/L	10.0	ND	99.8	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.9	1.0	µg/L	10.0	ND	109	70-130			
1,2,4-Trimethylbenzene	10.1	1.0	µg/L	10.0	ND	101	70-130			
1,3,5-Trimethylbenzene	10.4	1.0	µg/L	10.0	ND	104	70-130			
Vinyl Chloride	19.7	2.0	µg/L	10.0	ND	197	* 70-130			L-06, MS-15, V-06
m+p Xylene	21.5	2.0	µg/L	20.0	ND	107	70-130			
o-Xylene	11.0	1.0	µg/L	10.0	ND	110	70-130			
Surrogate: 1,2-Dichloroethane-d4	23.8		µg/L	25.0		95.4	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	25.4		µg/L	25.0		102	70-130			
Matrix Spike Dup (B336478-MSD1)	Source: 23D0395-01			Prepared: 04/07/23 Analyzed: 04/10/23						
Acetone	80.3	50	µg/L	100	ND	80.3	70-130	7.47	30	
Acrylonitrile	8.44	5.0	µg/L	10.0	ND	84.4	70-130	4.11	30	
tert-Amyl Methyl Ether (TAME)	8.71	0.50	µg/L	10.0	ND	87.1	70-130	6.34	30	
Benzene	10.0	1.0	µg/L	10.0	ND	100	70-130	2.86	30	
Bromobenzene	8.79	1.0	µg/L	10.0	ND	87.9	70-130	18.1	30	
Bromochloromethane	10.8	1.0	µg/L	10.0	ND	108	70-130	8.01	30	
Bromodichloromethane	9.89	0.50	µg/L	10.0	ND	98.9	70-130	8.24	30	
Bromoform	10.2	1.0	µg/L	10.0	ND	102	70-130	10.7	30	
Bromomethane	12.4	2.0	µg/L	10.0	ND	124	70-130	0.805	30	V-20
2-Butanone (MEK)	91.5	20	µg/L	100	ND	91.5	70-130	6.14	30	
tert-Butyl Alcohol (TBA)	84.0	20	µg/L	100	ND	84.0	70-130	1.34	30	
n-Butylbenzene	9.80	1.0	µg/L	10.0	ND	98.0	70-130	1.03	30	
sec-Butylbenzene	10.0	1.0	µg/L	10.0	ND	100	70-130	5.52	30	
tert-Butylbenzene	9.76	1.0	µg/L	10.0	ND	97.6	70-130	7.40	30	
tert-Butyl Ethyl Ether (TBEE)	9.25	0.50	µg/L	10.0	ND	92.5	70-130	7.39	30	
Carbon Disulfide	118	5.0	µg/L	100	ND	118	70-130	7.38	30	
Carbon Tetrachloride	11.5	5.0	µg/L	10.0	ND	115	70-130	3.75	30	
Chlorobenzene	10.3	1.0	µg/L	10.0	ND	103	70-130	6.76	30	
Chlorodibromomethane	10.5	0.50	µg/L	10.0	ND	105	70-130	7.88	30	
Chloroethane	12.8	2.0	µg/L	10.0	ND	128	70-130	3.69	30	L-02, V-20
Chloroform	9.95	2.0	µg/L	10.0	ND	99.5	70-130	3.65	30	
Chloromethane	10.0	2.0	µg/L	10.0	ND	100	70-130	14.8	30	R-05
2-Chlorotoluene	8.51	1.0	µg/L	10.0	ND	85.1	70-130	15.0	30	
4-Chlorotoluene	9.41	1.0	µg/L	10.0	ND	94.1	70-130	10.6	30	
1,2-Dibromo-3-chloropropane (DBCP)	8.16	5.0	µg/L	10.0	ND	81.6	70-130	3.61	30	
1,2-Dibromoethane (EDB)	9.80	0.50	µg/L	10.0	ND	98.0	70-130	5.56	30	
Dibromomethane	10.1	1.0	µg/L	10.0	ND	101	70-130	4.72	30	
1,2-Dichlorobenzene	9.50	1.0	µg/L	10.0	ND	95.0	70-130	9.14	30	
1,3-Dichlorobenzene	9.73	1.0	µg/L	10.0	ND	97.3	70-130	6.27	30	
1,4-Dichlorobenzene	9.52	1.0	µg/L	10.0	ND	95.2	70-130	8.74	30	
trans-1,4-Dichloro-2-butene	3.53	2.0	µg/L	10.0	ND	35.3	* 70-130	31.9	* 30	L-04, MS-09, V-05
Dichlorodifluoromethane (Freon 12)	11.9	2.0	µg/L	10.0	ND	119	70-130	0.420	30	
1,1-Dichloroethane	10.2	1.0	µg/L	10.0	ND	102	70-130	0.491	30	
1,2-Dichloroethane	9.25	1.0	µg/L	10.0	ND	92.5	70-130	6.08	30	
1,1-Dichloroethylene	11.1	1.0	µg/L	10.0	ND	111	70-130	7.48	30	
cis-1,2-Dichloroethylene	10.4	1.0	µg/L	10.0	ND	104	70-130	5.15	30	
trans-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0	ND	102	70-130	8.88	30	

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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 B336478 - SW-846 5030B										
Matrix Spike Dup (B336478-MSD1)	Source: 23D0395-01			Prepared: 04/07/23 Analyzed: 04/10/23						
1,2-Dichloropropane	9.80	1.0	µg/L	10.0	ND	98.0	70-130	7.09	30	
1,3-Dichloropropane	9.85	0.50	µg/L	10.0	ND	98.5	70-130	7.05	30	
2,2-Dichloropropane	8.90	1.0	µg/L	10.0	ND	89.0	70-130	3.42	30	
1,1-Dichloropropene	10.7	2.0	µg/L	10.0	ND	107	70-130	1.67	30	
cis-1,3-Dichloropropene	8.80	0.50	µg/L	10.0	ND	88.0	70-130	9.21	30	
trans-1,3-Dichloropropene	8.25	0.50	µg/L	10.0	ND	82.5	70-130	8.36	30	
Diethyl Ether	9.83	2.0	µg/L	10.0	ND	98.3	70-130	5.35	30	
Diisopropyl Ether (DIPE)	10.1	0.50	µg/L	10.0	ND	101	70-130	4.74	30	
1,4-Dioxane	109	50	µg/L	100	ND	109	70-130	15.9	30	
Ethylbenzene	10.3	1.0	µg/L	10.0	ND	103	70-130	4.75	30	
Hexachlorobutadiene	10.0	0.60	µg/L	10.0	ND	100	70-130	0.00	30	
2-Hexanone (MBK)	89.3	10	µg/L	100	ND	89.3	70-130	10.1	30	
Isopropylbenzene (Cumene)	9.52	1.0	µg/L	10.0	ND	95.2	70-130	12.5	30	
p-Isopropyltoluene (p-Cymene)	9.82	1.0	µg/L	10.0	ND	98.2	70-130	6.12	30	
Methyl Acetate	5.85	1.0	µg/L	10.0	ND	58.5	* 70-130	5.62	30	MS-09, V-05
Methyl tert-Butyl Ether (MTBE)	9.01	1.0	µg/L	10.0	ND	90.1	70-130	2.02	30	
Methyl Cyclohexane	10.2	1.0	µg/L	10.0	ND	102	70-130	3.73	30	
Methylene Chloride	10.6	5.0	µg/L	10.0	ND	106	70-130	8.72	30	
4-Methyl-2-pentanone (MIBK)	93.5	10	µg/L	100	ND	93.5	70-130	9.53	30	
Naphthalene	7.99	2.0	µg/L	10.0	ND	79.9	70-130	2.92	30	
n-Propylbenzene	9.42	1.0	µg/L	10.0	ND	94.2	70-130	11.1	30	
Styrene	9.93	1.0	µg/L	10.0	ND	99.3	70-130	7.93	30	
1,1,1,2-Tetrachloroethane	10.5	1.0	µg/L	10.0	ND	105	70-130	6.36	30	
1,1,2,2-Tetrachloroethane	9.11	0.50	µg/L	10.0	ND	91.1	70-130	9.31	30	
Tetrachloroethylene	10.8	1.0	µg/L	10.0	ND	108	70-130	6.36	30	
Tetrahydrofuran	11.0	10	µg/L	10.0	ND	110	70-130	2.86	30	
Toluene	10.2	1.0	µg/L	10.0	ND	102	70-130	5.23	30	
1,2,3-Trichlorobenzene	9.28	5.0	µg/L	10.0	ND	92.8	70-130	3.84	30	
1,2,4-Trichlorobenzene	8.93	1.0	µg/L	10.0	ND	89.3	70-130	0.449	30	
1,3,5-Trichlorobenzene	9.16	1.0	µg/L	10.0	ND	91.6	70-130	2.80	30	
1,1,1-Trichloroethane	11.0	1.0	µg/L	10.0	ND	110	70-130	2.69	30	
1,1,2-Trichloroethane	9.68	1.0	µg/L	10.0	ND	96.8	70-130	8.79	30	
Trichloroethylene	10.6	1.0	µg/L	10.0	ND	106	70-130	4.79	30	
Trichlorofluoromethane (Freon 11)	11.8	2.0	µg/L	10.0	ND	118	70-130	3.83	30	
1,2,3-Trichloropropane	8.42	2.0	µg/L	10.0	ND	84.2	70-130	17.0	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.5	1.0	µg/L	10.0	ND	115	70-130	5.43	30	
1,2,4-Trimethylbenzene	9.45	1.0	µg/L	10.0	ND	94.5	70-130	6.55	30	
1,3,5-Trimethylbenzene	9.69	1.0	µg/L	10.0	ND	96.9	70-130	7.26	30	
Vinyl Chloride	19.2	2.0	µg/L	10.0	ND	192	* 70-130	2.88	30	L-06, MS-15, V-06
m+p Xylene	19.9	2.0	µg/L	20.0	ND	99.7	70-130	7.39	20	
o-Xylene	10.2	1.0	µg/L	10.0	ND	102	70-130	7.67	30	
Surrogate: 1,2-Dichloroethane-d4	23.9		µg/L	25.0		95.5	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	23.2		µg/L	25.0		93.0	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 B336331 - SW-846 3510C
Blank (B336331-BLK1)

Prepared: 04/06/23 Analyzed: 04/07/23

Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							V-05
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							L-04, V-04, V-05
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	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
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							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
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	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							V-04, V-06
2,4-Dinitrotoluene	ND	10	µg/L							V-06
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							V-05
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							L-04
Hexachlorocyclopentadiene	ND	10	µg/L							
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 B336331 - SW-846 3510C
Blank (B336331-BLK1)

Prepared: 04/06/23 Analyzed: 04/07/23

2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
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							
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	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	78.4		µg/L	200		39.2	15-110			
Surrogate: Phenol-d6	56.8		µg/L	200		28.4	15-110			
Surrogate: Nitrobenzene-d5	69.8		µg/L	100		69.8	30-130			
Surrogate: 2-Fluorobiphenyl	63.3		µg/L	100		63.3	30-130			
Surrogate: 2,4,6-Tribromophenol	186		µg/L	200		93.2	15-110			
Surrogate: p-Terphenyl-d14	89.6		µg/L	100		89.6	30-130			

LCS (B336331-BS1)

Prepared: 04/06/23 Analyzed: 04/07/23

Acenaphthene	38.4	5.0	µg/L	50.0		76.9	40-140			
Acenaphthylene	35.5	5.0	µg/L	50.0		71.0	40-140			
Acetophenone	36.4	10	µg/L	50.0		72.8	40-140			
Aniline	27.6	5.0	µg/L	50.0		55.2	40-140			V-05
Anthracene	39.6	5.0	µg/L	50.0		79.2	40-140			
Benzidine	22.5	20	µg/L	50.0		45.0	40-140			L-04, V-04, V-05
Benzo(a)anthracene	38.2	5.0	µg/L	50.0		76.4	40-140			
Benzo(a)pyrene	36.5	5.0	µg/L	50.0		73.0	40-140			
Benzo(b)fluoranthene	41.8	5.0	µg/L	50.0		83.6	40-140			
Benzo(g,h,i)perylene	45.6	5.0	µg/L	50.0		91.2	40-140			
Benzo(k)fluoranthene	43.8	5.0	µg/L	50.0		87.6	40-140			
Benzoic Acid	20.1	10	µg/L	50.0		40.3	10-130			†
Bis(2-chloroethoxy)methane	34.6	10	µg/L	50.0		69.3	40-140			
Bis(2-chloroethyl)ether	32.2	10	µg/L	50.0		64.3	40-140			
Bis(2-chloroisopropyl)ether	35.6	10	µg/L	50.0		71.2	40-140			
Bis(2-Ethylhexyl)phthalate	33.7	10	µg/L	50.0		67.4	40-140			
4-Bromophenylphenylether	36.2	10	µg/L	50.0		72.4	40-140			
Butylbenzylphthalate	34.7	10	µg/L	50.0		69.3	40-140			
Carbazole	41.2	10	µg/L	50.0		82.3	40-140			
4-Chloroaniline	35.6	10	µg/L	50.0		71.2	40-140			
4-Chloro-3-methylphenol	36.7	10	µg/L	50.0		73.4	30-130			
2-Chloronaphthalene	30.0	10	µg/L	50.0		59.9	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 B336331 - SW-846 3510C										
LCS (B336331-BS1)										
Prepared: 04/06/23 Analyzed: 04/07/23										
2-Chlorophenol	34.0	10	µg/L	50.0		68.0	30-130			
4-Chlorophenylphenylether	37.0	10	µg/L	50.0		74.0	40-140			
Chrysene	37.1	5.0	µg/L	50.0		74.2	40-140			
Dibenz(a,h)anthracene	40.7	5.0	µg/L	50.0		81.4	40-140			
Dibenzofuran	36.7	5.0	µg/L	50.0		73.4	40-140			
Di-n-butylphthalate	35.9	10	µg/L	50.0		71.8	40-140			
1,2-Dichlorobenzene	24.6	5.0	µg/L	50.0		49.2	40-140			
1,3-Dichlorobenzene	21.5	5.0	µg/L	50.0		43.1	40-140			
1,4-Dichlorobenzene	22.8	5.0	µg/L	50.0		45.6	40-140			
3,3-Dichlorobenzidine	38.6	10	µg/L	50.0		77.2	40-140			
2,4-Dichlorophenol	38.0	10	µg/L	50.0		76.0	30-130			
Diethylphthalate	37.7	10	µg/L	50.0		75.3	40-140			
2,4-Dimethylphenol	37.0	10	µg/L	50.0		73.9	30-130			
Dimethylphthalate	37.6	10	µg/L	50.0		75.2	40-140			
4,6-Dinitro-2-methylphenol	51.3	10	µg/L	50.0		103	30-130			
2,4-Dinitrophenol	54.0	10	µg/L	50.0		108	30-130			V-04, V-06
2,4-Dinitrotoluene	48.2	10	µg/L	50.0		96.4	40-140			V-06
2,6-Dinitrotoluene	46.1	10	µg/L	50.0		92.2	40-140			
Di-n-octylphthalate	37.7	10	µg/L	50.0		75.4	40-140			
1,2-Diphenylhydrazine/Azobenzene	32.4	10	µg/L	50.0		64.8	40-140			V-05
Fluoranthene	42.1	5.0	µg/L	50.0		84.1	40-140			
Fluorene	38.9	5.0	µg/L	50.0		77.7	40-140			
Hexachlorobenzene	41.4	10	µg/L	50.0		82.8	40-140			
Hexachlorobutadiene	19.0	10	µg/L	50.0		38.0	* 40-140			L-04
Hexachlorocyclopentadiene	18.5	10	µg/L	50.0		37.0	30-140			†
Hexachloroethane	17.9	10	µg/L	50.0		35.8	* 40-140			L-04
Indeno(1,2,3-cd)pyrene	41.6	5.0	µg/L	50.0		83.3	40-140			
Isophorone	38.5	10	µg/L	50.0		77.0	40-140			
1-Methylnaphthalene	33.4	5.0	µg/L	50.0		66.9	40-140			
2-Methylnaphthalene	31.4	5.0	µg/L	50.0		62.8	40-140			
2-Methylphenol	30.2	10	µg/L	50.0		60.4	30-130			
3/4-Methylphenol	32.1	10	µg/L	50.0		64.2	30-130			
Naphthalene	32.1	5.0	µg/L	50.0		64.2	40-140			
2-Nitroaniline	36.7	10	µg/L	50.0		73.5	40-140			
3-Nitroaniline	45.2	10	µg/L	50.0		90.4	40-140			
4-Nitroaniline	45.2	10	µg/L	50.0		90.3	40-140			
Nitrobenzene	35.0	10	µg/L	50.0		69.9	40-140			
2-Nitrophenol	38.2	10	µg/L	50.0		76.5	30-130			
4-Nitrophenol	26.8	10	µg/L	50.0		53.7	10-130			†
N-Nitrosodimethylamine	23.5	10	µg/L	50.0		46.9	40-140			
N-Nitrosodiphenylamine/Diphenylamine	38.3	10	µg/L	50.0		76.6	40-140			
N-Nitrosodi-n-propylamine	34.9	10	µg/L	50.0		69.8	40-140			
Pentachloronitrobenzene	46.6	10	µg/L	50.0		93.2	40-140			
Pentachlorophenol	36.8	10	µg/L	50.0		73.5	30-130			
Phenanthrene	39.5	5.0	µg/L	50.0		78.9	40-140			
Phenol	16.5	10	µg/L	50.0		33.0	20-130			†
Pyrene	39.6	5.0	µg/L	50.0		79.3	40-140			
Pyridine	16.8	5.0	µg/L	50.0		33.5	10-140			†
1,2,4,5-Tetrachlorobenzene	31.1	10	µg/L	50.0		62.3	40-140			
1,2,4-Trichlorobenzene	27.1	5.0	µg/L	50.0		54.1	40-140			
2,4,5-Trichlorophenol	41.7	10	µg/L	50.0		83.4	30-130			
2,4,6-Trichlorophenol	38.5	10	µg/L	50.0		76.9	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 B336331 - SW-846 3510C										
LCS (B336331-BS1)										
Prepared: 04/06/23 Analyzed: 04/07/23										
Surrogate: 2-Fluorophenol	89.7		µg/L	200		44.9	15-110			
Surrogate: Phenol-d6	64.2		µg/L	200		32.1	15-110			
Surrogate: Nitrobenzene-d5	76.5		µg/L	100		76.5	30-130			
Surrogate: 2-Fluorobiphenyl	75.7		µg/L	100		75.7	30-130			
Surrogate: 2,4,6-Tribromophenol	186		µg/L	200		93.2	15-110			
Surrogate: p-Terphenyl-d14	87.9		µg/L	100		87.9	30-130			
LCS Dup (B336331-BSD1)										
Prepared: 04/06/23 Analyzed: 04/07/23										
Acenaphthene	39.5	5.0	µg/L	50.0		78.9	40-140	2.59	20	
Acenaphthylene	37.0	5.0	µg/L	50.0		74.1	40-140	4.25	20	
Acetophenone	39.3	10	µg/L	50.0		78.6	40-140	7.66	20	
Aniline	27.5	5.0	µg/L	50.0		55.0	40-140	0.327	50	V-05 ‡
Anthracene	41.2	5.0	µg/L	50.0		82.5	40-140	4.01	20	
Benzidine	23.9	20	µg/L	50.0		47.9	40-140	6.16	20	L-04, V-04, V-05
Benzo(a)anthracene	39.8	5.0	µg/L	50.0		79.6	40-140	4.15	20	
Benzo(a)pyrene	38.2	5.0	µg/L	50.0		76.3	40-140	4.45	20	
Benzo(b)fluoranthene	43.5	5.0	µg/L	50.0		87.0	40-140	3.89	20	
Benzo(g,h,i)perylene	46.1	5.0	µg/L	50.0		92.2	40-140	1.07	20	
Benzo(k)fluoranthene	44.8	5.0	µg/L	50.0		89.5	40-140	2.19	20	
Benzoic Acid	20.0	10	µg/L	50.0		40.0	10-130	0.548	50	† ‡
Bis(2-chloroethoxy)methane	36.0	10	µg/L	50.0		72.1	40-140	3.90	20	
Bis(2-chloroethyl)ether	34.7	10	µg/L	50.0		69.4	40-140	7.66	20	
Bis(2-chloroisopropyl)ether	38.0	10	µg/L	50.0		75.9	40-140	6.39	20	
Bis(2-Ethylhexyl)phthalate	34.7	10	µg/L	50.0		69.4	40-140	2.89	20	
4-Bromophenylphenylether	37.8	10	µg/L	50.0		75.5	40-140	4.25	20	
Butylbenzylphthalate	35.6	10	µg/L	50.0		71.2	40-140	2.59	20	
Carbazole	43.3	10	µg/L	50.0		86.5	40-140	4.98	20	
4-Chloroaniline	34.4	10	µg/L	50.0		68.8	40-140	3.40	20	
4-Chloro-3-methylphenol	37.6	10	µg/L	50.0		75.1	30-130	2.34	20	
2-Chloronaphthalene	30.8	10	µg/L	50.0		61.5	40-140	2.67	20	
2-Chlorophenol	37.5	10	µg/L	50.0		75.0	30-130	9.85	20	
4-Chlorophenylphenylether	37.8	10	µg/L	50.0		75.6	40-140	2.22	20	
Chrysene	38.9	5.0	µg/L	50.0		77.8	40-140	4.74	20	
Dibenz(a,h)anthracene	40.8	5.0	µg/L	50.0		81.7	40-140	0.319	20	
Dibenzofuran	37.7	5.0	µg/L	50.0		75.5	40-140	2.74	20	
Di-n-butylphthalate	37.0	10	µg/L	50.0		74.0	40-140	2.96	20	
1,2-Dichlorobenzene	25.4	5.0	µg/L	50.0		50.8	40-140	3.08	20	
1,3-Dichlorobenzene	22.0	5.0	µg/L	50.0		44.1	40-140	2.34	20	
1,4-Dichlorobenzene	23.4	5.0	µg/L	50.0		46.9	40-140	2.81	20	
3,3-Dichlorobenzidine	42.9	10	µg/L	50.0		85.8	40-140	10.6	20	
2,4-Dichlorophenol	39.5	10	µg/L	50.0		79.0	30-130	3.95	20	
Diethylphthalate	38.1	10	µg/L	50.0		76.1	40-140	1.06	20	
2,4-Dimethylphenol	38.6	10	µg/L	50.0		77.3	30-130	4.39	20	
Dimethylphthalate	38.1	10	µg/L	50.0		76.2	40-140	1.37	50	‡
4,6-Dinitro-2-methylphenol	52.4	10	µg/L	50.0		105	30-130	2.05	50	‡
2,4-Dinitrophenol	55.1	10	µg/L	50.0		110	30-130	1.98	50	V-04, V-06 ‡
2,4-Dinitrotoluene	49.9	10	µg/L	50.0		99.7	40-140	3.43	20	V-06
2,6-Dinitrotoluene	47.4	10	µg/L	50.0		94.8	40-140	2.85	20	
Di-n-octylphthalate	36.7	10	µg/L	50.0		73.4	40-140	2.77	20	
1,2-Diphenylhydrazine/Azobenzene	34.3	10	µg/L	50.0		68.5	40-140	5.64	20	V-05
Fluoranthene	43.6	5.0	µg/L	50.0		87.2	40-140	3.53	20	
Fluorene	39.9	5.0	µg/L	50.0		79.7	40-140	2.54	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
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Batch B336331 - SW-846 3510C
LCS Dup (B336331-BSD1)

Prepared: 04/06/23 Analyzed: 04/07/23

Hexachlorobenzene	43.3	10	µg/L	50.0		86.6	40-140	4.42	20	
Hexachlorobutadiene	17.4	10	µg/L	50.0		34.8	* 40-140	8.80	20	L-04
Hexachlorocyclopentadiene	16.5	10	µg/L	50.0		33.0	30-140	11.2	50	† ‡
Hexachloroethane	16.6	10	µg/L	50.0		33.2	* 40-140	7.42	50	L-04 ‡
Indeno(1,2,3-cd)pyrene	42.0	5.0	µg/L	50.0		84.1	40-140	0.932	50	‡
Isophorone	40.2	10	µg/L	50.0		80.5	40-140	4.45	20	
1-Methylnaphthalene	34.2	5.0	µg/L	50.0		68.4	40-140	2.28	20	
2-Methylnaphthalene	31.7	5.0	µg/L	50.0		63.3	40-140	0.920	20	
2-Methylphenol	32.6	10	µg/L	50.0		65.2	30-130	7.74	20	
3/4-Methylphenol	33.3	10	µg/L	50.0		66.6	30-130	3.76	20	
Naphthalene	32.8	5.0	µg/L	50.0		65.5	40-140	2.00	20	
2-Nitroaniline	37.8	10	µg/L	50.0		75.5	40-140	2.74	20	
3-Nitroaniline	45.8	10	µg/L	50.0		91.6	40-140	1.32	20	
4-Nitroaniline	46.7	10	µg/L	50.0		93.5	40-140	3.42	20	
Nitrobenzene	37.4	10	µg/L	50.0		74.7	40-140	6.64	20	
2-Nitrophenol	41.2	10	µg/L	50.0		82.5	30-130	7.58	20	
4-Nitrophenol	27.3	10	µg/L	50.0		54.5	10-130	1.59	50	† ‡
N-Nitrosodimethylamine	25.3	10	µg/L	50.0		50.6	40-140	7.58	20	
N-Nitrosodiphenylamine/Diphenylamine	39.9	10	µg/L	50.0		79.7	40-140	4.02	20	
N-Nitrosodi-n-propylamine	36.9	10	µg/L	50.0		73.9	40-140	5.62	20	
Pentachloronitrobenzene	47.6	10	µg/L	50.0		95.2	40-140	2.14	20	
Pentachlorophenol	37.4	10	µg/L	50.0		74.7	30-130	1.67	50	‡
Phenanthrene	41.2	5.0	µg/L	50.0		82.4	40-140	4.34	20	
Phenol	17.5	10	µg/L	50.0		34.9	20-130	5.59	20	†
Pyrene	40.6	5.0	µg/L	50.0		81.2	40-140	2.44	20	
Pyridine	17.0	5.0	µg/L	50.0		33.9	10-140	1.19	50	† ‡
1,2,4,5-Tetrachlorobenzene	30.5	10	µg/L	50.0		61.0	40-140	2.04	20	
1,2,4-Trichlorobenzene	26.4	5.0	µg/L	50.0		52.7	40-140	2.70	20	
2,4,5-Trichlorophenol	42.3	10	µg/L	50.0		84.5	30-130	1.31	20	
2,4,6-Trichlorophenol	39.7	10	µg/L	50.0		79.3	30-130	3.05	50	‡
Surrogate: 2-Fluorophenol	98.7		µg/L	200		49.4	15-110			
Surrogate: Phenol-d6	67.4		µg/L	200		33.7	15-110			
Surrogate: Nitrobenzene-d5	82.4		µg/L	100		82.4	30-130			
Surrogate: 2-Fluorobiphenyl	79.7		µg/L	100		79.7	30-130			
Surrogate: 2,4,6-Tribromophenol	190		µg/L	200		95.0	15-110			
Surrogate: p-Terphenyl-d14	89.3		µg/L	100		89.3	30-130			

Batch B336516 - SW-846 3510C
Blank (B336516-BLK1)

Prepared: 04/07/23 Analyzed: 04/10/23

Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							V-05
Anthracene	ND	5.0	µg/L							
Benzydine	ND	20	µg/L							L-04, R-05, V-04, V-05
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							V-06
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	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 B336516 - SW-846 3510C
Blank (B336516-BLK1)

Prepared: 04/07/23 Analyzed: 04/10/23

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-05
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
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							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
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	10	µg/L							V-06
2,4-Dinitrophenol	ND	10	µg/L							V-04, V-06
2,4-Dinitrotoluene	ND	10	µg/L							V-06
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							V-05
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
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							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
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							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	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
Batch B336516 - SW-846 3510C										
Blank (B336516-BLK1)										
Prepared: 04/07/23 Analyzed: 04/10/23										
Pentachloronitrobenzene	ND	10	µg/L							V-06
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	76.9		µg/L	200		38.5	15-110			
Surrogate: Phenol-d6	52.1		µg/L	200		26.0	15-110			
Surrogate: Nitrobenzene-d5	71.1		µg/L	100		71.1	30-130			
Surrogate: 2-Fluorobiphenyl	67.4		µg/L	100		67.4	30-130			
Surrogate: 2,4,6-Tribromophenol	172		µg/L	200		85.8	15-110			
Surrogate: p-Terphenyl-d14	85.5		µg/L	100		85.5	30-130			
LCS (B336516-BS1)										
Prepared: 04/07/23 Analyzed: 04/10/23										
Acenaphthene	37.8	5.0	µg/L	50.0		75.6	40-140			
Acenaphthylene	37.8	5.0	µg/L	50.0		75.7	40-140			
Acetophenone	35.3	10	µg/L	50.0		70.7	40-140			
Aniline	24.3	5.0	µg/L	50.0		48.5	40-140			V-05
Anthracene	40.5	5.0	µg/L	50.0		81.0	40-140			
Benzidine	14.5	20	µg/L	50.0		29.0	* 40-140			L-04, R-05, V-04, V-05
Benzo(a)anthracene	39.2	5.0	µg/L	50.0		78.5	40-140			
Benzo(a)pyrene	37.5	5.0	µg/L	50.0		75.0	40-140			
Benzo(b)fluoranthene	40.0	5.0	µg/L	50.0		79.9	40-140			
Benzo(g,h,i)perylene	47.9	5.0	µg/L	50.0		95.8	40-140			V-06
Benzo(k)fluoranthene	41.6	5.0	µg/L	50.0		83.1	40-140			
Benzoic Acid	20.1	10	µg/L	50.0		40.2	10-130			†
Bis(2-chloroethoxy)methane	34.3	10	µg/L	50.0		68.6	40-140			
Bis(2-chloroethyl)ether	30.9	10	µg/L	50.0		61.8	40-140			
Bis(2-chloroisopropyl)ether	34.4	10	µg/L	50.0		68.8	40-140			V-05
Bis(2-Ethylhexyl)phthalate	33.2	10	µg/L	50.0		66.5	40-140			
4-Bromophenylphenylether	38.8	10	µg/L	50.0		77.5	40-140			
Butylbenzylphthalate	35.1	10	µg/L	50.0		70.1	40-140			
Carbazole	40.3	10	µg/L	50.0		80.6	40-140			
4-Chloroaniline	27.5	10	µg/L	50.0		55.1	40-140			
4-Chloro-3-methylphenol	37.1	10	µg/L	50.0		74.2	30-130			
2-Chloronaphthalene	34.2	10	µg/L	50.0		68.3	40-140			
2-Chlorophenol	32.6	10	µg/L	50.0		65.1	30-130			
4-Chlorophenylphenylether	39.4	10	µg/L	50.0		78.8	40-140			
Chrysene	38.2	5.0	µg/L	50.0		76.3	40-140			
Dibenz(a,h)anthracene	43.8	5.0	µg/L	50.0		87.7	40-140			
Dibenzofuran	39.3	5.0	µg/L	50.0		78.5	40-140			
Di-n-butylphthalate	36.1	10	µg/L	50.0		72.3	40-140			
1,2-Dichlorobenzene	27.6	5.0	µg/L	50.0		55.3	40-140			
1,3-Dichlorobenzene	26.0	5.0	µg/L	50.0		51.9	40-140			
1,4-Dichlorobenzene	26.7	5.0	µg/L	50.0		53.5	40-140			
3,3-Dichlorobenzidine	41.7	10	µg/L	50.0		83.4	40-140			
2,4-Dichlorophenol	37.9	10	µg/L	50.0		75.8	30-130			
Diethylphthalate	38.7	10	µg/L	50.0		77.3	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 B336516 - SW-846 3510C										
LCS (B336516-BS1)										
Prepared: 04/07/23 Analyzed: 04/10/23										
2,4-Dimethylphenol	36.4	10	µg/L	50.0		72.8	30-130			
Dimethylphthalate	38.1	10	µg/L	50.0		76.1	40-140			
4,6-Dinitro-2-methylphenol	52.9	10	µg/L	50.0		106	30-130			V-06
2,4-Dinitrophenol	58.3	10	µg/L	50.0		117	30-130			V-04, V-06
2,4-Dinitrotoluene	49.9	10	µg/L	50.0		99.7	40-140			V-06
2,6-Dinitrotoluene	46.5	10	µg/L	50.0		93.0	40-140			
Di-n-octylphthalate	30.9	10	µg/L	50.0		61.9	40-140			
1,2-Diphenylhydrazine/Azobenzene	32.8	10	µg/L	50.0		65.5	40-140			V-05
Fluoranthene	42.5	5.0	µg/L	50.0		85.0	40-140			
Fluorene	41.0	5.0	µg/L	50.0		82.0	40-140			
Hexachlorobenzene	43.9	10	µg/L	50.0		87.7	40-140			
Hexachlorobutadiene	31.0	10	µg/L	50.0		61.9	40-140			
Hexachlorocyclopentadiene	35.0	10	µg/L	50.0		69.9	30-140			†
Hexachloroethane	24.6	10	µg/L	50.0		49.3	40-140			
Indeno(1,2,3-cd)pyrene	44.7	5.0	µg/L	50.0		89.5	40-140			
Isophorone	37.9	10	µg/L	50.0		75.9	40-140			
1-Methylnaphthalene	36.7	5.0	µg/L	50.0		73.3	40-140			
2-Methylnaphthalene	34.3	5.0	µg/L	50.0		68.7	40-140			
2-Methylphenol	29.5	10	µg/L	50.0		59.0	30-130			
3/4-Methylphenol	29.9	10	µg/L	50.0		59.7	30-130			
Naphthalene	33.7	5.0	µg/L	50.0		67.4	40-140			
2-Nitroaniline	35.8	10	µg/L	50.0		71.7	40-140			
3-Nitroaniline	39.6	10	µg/L	50.0		79.2	40-140			
4-Nitroaniline	40.2	10	µg/L	50.0		80.4	40-140			
Nitrobenzene	34.5	10	µg/L	50.0		69.0	40-140			
2-Nitrophenol	38.1	10	µg/L	50.0		76.1	30-130			
4-Nitrophenol	25.6	10	µg/L	50.0		51.2	10-130			†
N-Nitrosodimethylamine	21.5	10	µg/L	50.0		43.0	40-140			
N-Nitrosodiphenylamine/Diphenylamine	39.1	10	µg/L	50.0		78.2	40-140			
N-Nitrosodi-n-propylamine	33.3	10	µg/L	50.0		66.6	40-140			
Pentachloronitrobenzene	47.9	10	µg/L	50.0		95.8	40-140			V-06
Pentachlorophenol	36.4	10	µg/L	50.0		72.8	30-130			
Phenanthrene	40.0	5.0	µg/L	50.0		80.1	40-140			
Phenol	15.3	10	µg/L	50.0		30.7	20-130			†
Pyrene	41.3	5.0	µg/L	50.0		82.7	40-140			
Pyridine	14.3	5.0	µg/L	50.0		28.6	10-140			†
1,2,4,5-Tetrachlorobenzene	36.7	10	µg/L	50.0		73.5	40-140			
1,2,4-Trichlorobenzene	33.5	5.0	µg/L	50.0		66.9	40-140			
2,4,5-Trichlorophenol	43.4	10	µg/L	50.0		86.7	30-130			
2,4,6-Trichlorophenol	39.8	10	µg/L	50.0		79.5	30-130			
Surrogate: 2-Fluorophenol	87.2		µg/L	200		43.6	15-110			
Surrogate: Phenol-d6	59.9		µg/L	200		30.0	15-110			
Surrogate: Nitrobenzene-d5	78.6		µg/L	100		78.6	30-130			
Surrogate: 2-Fluorobiphenyl	81.0		µg/L	100		81.0	30-130			
Surrogate: 2,4,6-Tribromophenol	197		µg/L	200		98.5	15-110			
Surrogate: p-Terphenyl-d14	93.6		µg/L	100		93.6	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 B336516 - SW-846 3510C										
LCS Dup (B336516-BSD1)										
Prepared: 04/07/23 Analyzed: 04/10/23										
Acenaphthene	39.0	5.0	µg/L	50.0		77.9	40-140	3.07	20	
Acenaphthylene	36.3	5.0	µg/L	50.0		72.6	40-140	4.21	20	
Acetophenone	35.2	10	µg/L	50.0		70.3	40-140	0.454	20	
Aniline	24.4	5.0	µg/L	50.0		48.7	40-140	0.411	50	V-05 ‡
Anthracene	40.2	5.0	µg/L	50.0		80.5	40-140	0.669	20	
Benzidine	11.8	20	µg/L	50.0		23.6 *	40-140	20.3 *	20	L-04, R-05, V-04, V-05
Benzo(a)anthracene	38.9	5.0	µg/L	50.0		77.8	40-140	0.845	20	
Benzo(a)pyrene	37.4	5.0	µg/L	50.0		74.9	40-140	0.160	20	
Benzo(b)fluoranthene	39.4	5.0	µg/L	50.0		78.8	40-140	1.36	20	
Benzo(g,h,i)perylene	49.6	5.0	µg/L	50.0		99.2	40-140	3.51	20	V-06
Benzo(k)fluoranthene	40.9	5.0	µg/L	50.0		81.7	40-140	1.67	20	
Benzoic Acid	19.4	10	µg/L	50.0		38.9	10-130	3.39	50	† ‡
Bis(2-chloroethoxy)methane	32.4	10	µg/L	50.0		64.9	40-140	5.63	20	
Bis(2-chloroethyl)ether	30.4	10	µg/L	50.0		60.7	40-140	1.86	20	
Bis(2-chloroisopropyl)ether	34.4	10	µg/L	50.0		68.8	40-140	0.0291	20	V-05
Bis(2-Ethylhexyl)phthalate	32.9	10	µg/L	50.0		65.8	40-140	1.06	20	
4-Bromophenylphenylether	36.7	10	µg/L	50.0		73.3	40-140	5.57	20	
Butylbenzylphthalate	34.5	10	µg/L	50.0		69.0	40-140	1.55	20	
Carbazole	39.9	10	µg/L	50.0		79.8	40-140	0.998	20	
4-Chloroaniline	29.7	10	µg/L	50.0		59.4	40-140	7.58	20	
4-Chloro-3-methylphenol	35.3	10	µg/L	50.0		70.7	30-130	4.83	20	
2-Chloronaphthalene	30.1	10	µg/L	50.0		60.3	40-140	12.5	20	
2-Chlorophenol	32.4	10	µg/L	50.0		64.8	30-130	0.493	20	
4-Chlorophenylphenylether	38.4	10	µg/L	50.0		76.8	40-140	2.54	20	
Chrysene	37.8	5.0	µg/L	50.0		75.7	40-140	0.842	20	
Dibenz(a,h)anthracene	44.8	5.0	µg/L	50.0		89.5	40-140	2.03	20	
Dibenzofuran	37.8	5.0	µg/L	50.0		75.6	40-140	3.76	20	
Di-n-butylphthalate	35.4	10	µg/L	50.0		70.8	40-140	2.10	20	
1,2-Dichlorobenzene	28.4	5.0	µg/L	50.0		56.8	40-140	2.64	20	
1,3-Dichlorobenzene	26.2	5.0	µg/L	50.0		52.4	40-140	0.805	20	
1,4-Dichlorobenzene	26.8	5.0	µg/L	50.0		53.6	40-140	0.299	20	
3,3-Dichlorobenzidine	44.6	10	µg/L	50.0		89.2	40-140	6.68	20	
2,4-Dichlorophenol	35.9	10	µg/L	50.0		71.7	30-130	5.56	20	
Diethylphthalate	36.9	10	µg/L	50.0		73.8	40-140	4.71	20	
2,4-Dimethylphenol	34.5	10	µg/L	50.0		69.0	30-130	5.25	20	
Dimethylphthalate	36.9	10	µg/L	50.0		73.8	40-140	3.07	50	‡
4,6-Dinitro-2-methylphenol	52.8	10	µg/L	50.0		106	30-130	0.265	50	V-06 ‡
2,4-Dinitrophenol	55.2	10	µg/L	50.0		110	30-130	5.55	50	V-04, V-06 ‡
2,4-Dinitrotoluene	49.0	10	µg/L	50.0		97.9	40-140	1.86	20	V-06
2,6-Dinitrotoluene	45.7	10	µg/L	50.0		91.4	40-140	1.78	20	
Di-n-octylphthalate	30.4	10	µg/L	50.0		60.8	40-140	1.69	20	
1,2-Diphenylhydrazine/Azobenzene	33.0	10	µg/L	50.0		66.0	40-140	0.760	20	V-05
Fluoranthene	41.8	5.0	µg/L	50.0		83.6	40-140	1.61	20	
Fluorene	39.6	5.0	µg/L	50.0		79.3	40-140	3.30	20	
Hexachlorobenzene	43.0	10	µg/L	50.0		86.0	40-140	1.93	20	
Hexachlorobutadiene	30.2	10	µg/L	50.0		60.4	40-140	2.45	20	
Hexachlorocyclopentadiene	32.0	10	µg/L	50.0		64.1	30-140	8.78	50	† ‡
Hexachloroethane	25.4	10	µg/L	50.0		50.8	40-140	2.92	50	‡
Indeno(1,2,3-cd)pyrene	46.1	5.0	µg/L	50.0		92.3	40-140	3.08	50	‡
Isophorone	36.4	10	µg/L	50.0		72.8	40-140	4.09	20	
1-Methylnaphthalene	35.6	5.0	µg/L	50.0		71.3	40-140	2.85	20	
2-Methylnaphthalene	33.2	5.0	µg/L	50.0		66.5	40-140	3.23	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 B336516 - SW-846 3510C										
LCS Dup (B336516-BSD1)										
Prepared: 04/07/23 Analyzed: 04/10/23										
2-Methylphenol	28.4	10	µg/L	50.0		56.8	30-130	3.77	20	
3/4-Methylphenol	29.3	10	µg/L	50.0		58.7	30-130	1.79	20	
Naphthalene	32.8	5.0	µg/L	50.0		65.6	40-140	2.68	20	
2-Nitroaniline	35.6	10	µg/L	50.0		71.2	40-140	0.616	20	
3-Nitroaniline	41.0	10	µg/L	50.0		82.0	40-140	3.42	20	
4-Nitroaniline	42.6	10	µg/L	50.0		85.2	40-140	5.79	20	
Nitrobenzene	33.8	10	µg/L	50.0		67.6	40-140	2.11	20	
2-Nitrophenol	37.3	10	µg/L	50.0		74.6	30-130	2.04	20	
4-Nitrophenol	25.9	10	µg/L	50.0		51.8	10-130	1.16	50	† ‡
N-Nitrosodimethylamine	22.4	10	µg/L	50.0		44.9	40-140	4.28	20	
N-Nitrosodiphenylamine/Diphenylamine	38.4	10	µg/L	50.0		76.9	40-140	1.70	20	
N-Nitrosodi-n-propylamine	33.3	10	µg/L	50.0		66.5	40-140	0.0902	20	
Pentachloronitrobenzene	47.5	10	µg/L	50.0		94.9	40-140	0.902	20	V-06
Pentachlorophenol	35.6	10	µg/L	50.0		71.2	30-130	2.33	50	‡
Phenanthrene	40.2	5.0	µg/L	50.0		80.3	40-140	0.324	20	
Phenol	14.8	10	µg/L	50.0		29.6	20-130	3.65	20	†
Pyrene	41.0	5.0	µg/L	50.0		81.9	40-140	0.924	20	
Pyridine	13.7	5.0	µg/L	50.0		27.3	10-140	4.58	50	† ‡
1,2,4,5-Tetrachlorobenzene	33.8	10	µg/L	50.0		67.6	40-140	8.37	20	
1,2,4-Trichlorobenzene	32.1	5.0	µg/L	50.0		64.1	40-140	4.27	20	
2,4,5-Trichlorophenol	40.2	10	µg/L	50.0		80.3	30-130	7.69	20	
2,4,6-Trichlorophenol	37.9	10	µg/L	50.0		75.7	30-130	4.92	50	‡
Surrogate: 2-Fluorophenol	84.1		µg/L	200		42.0	15-110			
Surrogate: Phenol-d6	58.4		µg/L	200		29.2	15-110			
Surrogate: Nitrobenzene-d5	74.9		µg/L	100		74.9	30-130			
Surrogate: 2-Fluorobiphenyl	74.1		µg/L	100		74.1	30-130			
Surrogate: 2,4,6-Tribromophenol	187		µg/L	200		93.5	15-110			
Surrogate: p-Terphenyl-d14	89.7		µg/L	100		89.7	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	%REC Limits	RPD	RPD Limit	Notes
Batch B336330 - SW-846 3510C										
Blank (B336330-BLK1)										
				Prepared: 04/05/23 Analyzed: 04/06/23						
1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	2.91		µg/L	10.0		29.1	15-110			
LCS (B336330-BS1)										
				Prepared: 04/05/23 Analyzed: 04/06/23						
1,4-Dioxane	14.7	0.20	µg/L	10.0		147 *	40-140			L-06
Surrogate: 1,4-Dioxane-d8	2.86		µg/L	10.0		28.6	15-110			
LCS Dup (B336330-BSD1)										
				Prepared: 04/05/23 Analyzed: 04/06/23						
1,4-Dioxane	15.9	0.20	µg/L	10.0		159 *	40-140	7.42	30	L-06
Surrogate: 1,4-Dioxane-d8	2.86		µg/L	10.0		28.6	15-110			
Matrix Spike (B336330-MS1)										
				Source: 23D0395-01		Prepared: 04/05/23 Analyzed: 04/06/23				
1,4-Dioxane	56.0	0.19	µg/L	9.62	40.8	158 *	40-140			L-06, MS-12A
Surrogate: 1,4-Dioxane-d8	2.20		µg/L	9.62		22.9	15-110			
Matrix Spike Dup (B336330-MSD1)										
				Source: 23D0395-01		Prepared: 04/05/23 Analyzed: 04/06/23				
1,4-Dioxane	54.5	0.19	µg/L	9.52	40.8	144 *	40-140	2.68	20	L-06, MS-12A
Surrogate: 1,4-Dioxane-d8	2.55		µg/L	9.52		26.8	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-02	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
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-06	Laboratory fortified blank/laboratory control sample recovery and/or duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the high 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.
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-12A	Matrix spike and spike duplicate recovery is outside of control limits on the high side.
MS-15	Matrix spike and matrix spike duplicate recoveries are outside of control limits. Data validation is not affected since results for this compound in this sample are "not detected", and recovery bias is on the high side.
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.

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

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
Certified Analyses included in this Report

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
Certified Analyses included in this Report

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

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

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	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2023

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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



Client Rumson
Project Claremont POLYChemical Site Q1 Sys Sample
MCP/RCP Required N/A
Deliverable Package Req. N/A
Location Old Bethpage, NY
PWSID# (When Applicable) N/A

Arrival Method:

Courier ☐ Fed Ex ☒ Walk In ☐ Other ☐

Received By / Date / Time LA 4/5/23 1003

Back-Sheet By / Date / Time LA 4/5/23 1216

Temperature Method gsm # 5

Temp ☒ 6° C Actual Temperature 24/2.0/3.0/3.2

Rush Samples: Yes / ☒ No Notify _____

Short Hold: Yes / ☒ No Notify _____

Notes regarding Samples/COC outside of SOP:

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☒	☒ (2)
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	☒	☒ (2)
Lab to Filters	☐	☒
COC Legible	☒	☐
COC Included: (Check all included)		
Client ☒	Analysis ☒	Sampler Name ☒
Project ☒	IDs ☒	Collection Date/Time ☒
All Samples Proper pH: ☒ N/A ☐		

Container (Circle when applicable)	UnP	HCl	HNO3	H2SO4	NaOH	Trizma	NaS2O3	Other Preservative	
1L <u>Amber</u> Plastic	12								
500 mL Amber Plastic									
250 mL Amber Plastic									
Other Amber Clear Plastic									
16oz Amber Clear									
8oz Amber Clear									
4oz Amber Clear									
2oz Amber Clear									
Col/Bacteria									
Flashpoint									
Plastic Bag									
SOC Kit									
Perchlorate									
Encore									
Frozen									
	Proper Headspace	UnP	HCl	MeOH	Bisulfate	DI	Thiosulfate	Sulfuric	Other
Vials	N/A		16						

May 10, 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: 23D0406

Enclosed are results of analyses for samples as received by the laboratory on April 5, 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: 5/10/2023

PURCHASE ORDER NUMBER: 144165

PROJECT NUMBER: 130015

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23D0406

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-00-040423	23D0406-01	Water		Draft Method 1633	
PD-CP-01-040423	23D0406-02	Water		Draft Method 1633	
ASF-CP-00-040423	23D0406-03	Water		Draft Method 1633	
ASF-CP-01-040423	23D0406-04	Water		Draft Method 1633	

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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.

Draft Method 1633

Qualifications:

PF-17

Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.

Analyte & Samples(s) Qualified:

13C2-6:2FTS

23D0406-01[PD-CP-00-040423]

1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)

23D0406-01[PD-CP-00-040423]

PF-18

Duplicate analysis confirmed Extracted Internal Standard failure due to matrix effects.

Analyte & Samples(s) Qualified:

13C2-4:2FTS

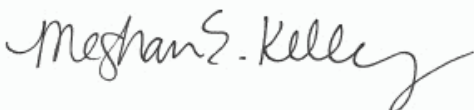
23D0406-01[PD-CP-00-040423], 23D0406-02[PD-CP-01-040423], 23D0406-03[ASF-CP-00-040423], 23D0406-04[ASF-CP-01-040423]

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

23D0406-01[PD-CP-00-040423], 23D0406-02[PD-CP-01-040423], 23D0406-03[ASF-CP-00-040423], 23D0406-04[ASF-CP-01-040423]

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: 23D0406

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0406-01

Sample Matrix: 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)	35	3.6	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluoropentanoic acid (PFPeA)	22	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorohexanoic acid (PFHxA)	32	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluoroheptanoic acid (PFHpA)	14	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorooctanoic acid (PFOA)	44	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorononanoic acid (PFNA)	9.5	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorodecanoic acid (PFDA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorobutanesulfonic acid (PFBS)	5.4	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluoropentanesulfonic acid (PFPeS)	4.1	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorohexanesulfonic acid (PFHxS)	9.1	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorooctanesulfonic acid (PFOS)	13	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.6	ng/L	1	PF-18	Draft Method 1633	4/12/23	5/4/23 0:03	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.6	ng/L	1	PF-17	Draft Method 1633	4/12/23	5/4/23 0:03	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.6	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
N-EtFOSAA (NEtFOSAA)	3.5	0.90	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.0	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.0	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.6	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.6	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.6	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
11Cl-PF3OUdS (F53B Major)	ND	3.6	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.0	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	45	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	45	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	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: 23D0406

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0406-01

Sample Matrix: 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	4/12/23	5/4/23 0:03	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:03	AMS
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
13C4-PFBA	87.3		20-150					5/4/23 0:03	
13C5-PFPeA	94.7		20-150					5/4/23 0:03	
13C5-PFHxA	97.3		20-150					5/4/23 0:03	
13C4-PFHpA	98.4		20-150					5/4/23 0:03	
13C8-PFOA	98.2		20-150					5/4/23 0:03	
13C9-PFNA	91.9		20-150					5/4/23 0:03	
13C6-PFDA	96.6		20-150					5/4/23 0:03	
13C7-PFUnA	93.5		20-150					5/4/23 0:03	
13C2-PFDoA	89.0		20-150					5/4/23 0:03	
13C2-PFTeDA	90.0		20-150					5/4/23 0:03	
13C3-PFBS	95.0		20-150					5/4/23 0:03	
13C3-PFHxS	94.3		20-150					5/4/23 0:03	
13C8-PFOS	98.8		20-150					5/4/23 0:03	
13C2-4:2FTS	202	*	20-150		PF-18			5/4/23 0:03	
13C2-6:2FTS	156	*	20-150		PF-17			5/4/23 0:03	
13C2-8:2FTS	107		20-150					5/4/23 0:03	
13C8-PFOSA	84.0		20-150					5/4/23 0:03	
D3-NMeFOSA	67.7		20-150					5/4/23 0:03	
D5-NEtFOSA	72.3		20-150					5/4/23 0:03	
D3-NMeFOSAA	95.2		20-150					5/4/23 0:03	
D5-NEtFOSAA	89.6		20-150					5/4/23 0:03	
D7-NMeFOSE	85.5		20-150					5/4/23 0:03	
D9-NEtFOSE	82.4		20-150					5/4/23 0:03	
13C3-HFPO-DA	95.0		20-150					5/4/23 0:03	

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: 23D0406

Date Received: 4/5/2023

Field Sample #: PD-CP-00-040423

Sampled: 4/4/2023 14:00

Sample ID: 23D0406-01

Sample Matrix: 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		Draft Method 1633	4/6/23	4/6/23 13:52	LL

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: 23D0406

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0406-02

Sample Matrix: 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)	42	3.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluoropentanoic acid (PFPeA)	22	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorohexanoic acid (PFHxA)	32	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluoroheptanoic acid (PFHpA)	14	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorooctanoic acid (PFOA)	42	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorononanoic acid (PFNA)	9.8	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorodecanoic acid (PFDA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorobutanesulfonic acid (PFBS)	5.3	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluoropetanesulfonic acid (PFPeS)	3.9	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorohexanesulfonic acid (PFHxS)	9.0	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorooctanesulfonic acid (PFOS)	15	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.8	ng/L	1	PF-18	Draft Method 1633	4/12/23	5/4/23 0:18	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
N-EtFOSAA (NEtFOSAA)	3.8	0.94	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.4	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.4	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	3.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
11Cl-PF3OUdS (F53B Major)	ND	3.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.4	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	47	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
3-Perfluoroheptyl propanoic acid (FHPrPA) (7:3FTCA)	ND	47	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	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: 23D0406

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0406-02

Sample Matrix: 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	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:18	AMS
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
13C4-PFBA	73.1		20-150					5/4/23 0:18	
13C5-PFPeA	91.5		20-150					5/4/23 0:18	
13C5-PFHxA	96.5		20-150					5/4/23 0:18	
13C4-PFHpA	95.5		20-150					5/4/23 0:18	
13C8-PFOA	92.7		20-150					5/4/23 0:18	
13C9-PFNA	91.3		20-150					5/4/23 0:18	
13C6-PFDA	92.4		20-150					5/4/23 0:18	
13C7-PFUnA	98.3		20-150					5/4/23 0:18	
13C2-PFDoA	97.7		20-150					5/4/23 0:18	
13C2-PFTeDA	88.1		20-150					5/4/23 0:18	
13C3-PFBS	93.5		20-150					5/4/23 0:18	
13C3-PFHxS	90.9		20-150					5/4/23 0:18	
13C8-PFOS	93.2		20-150					5/4/23 0:18	
13C2-4:2FTS	190	*	20-150		PF-18			5/4/23 0:18	
13C2-6:2FTS	143		20-150					5/4/23 0:18	
13C2-8:2FTS	101		20-150					5/4/23 0:18	
13C8-PFOSA	85.4		20-150					5/4/23 0:18	
D3-NMeFOSA	77.1		20-150					5/4/23 0:18	
D5-NEtFOSA	81.1		20-150					5/4/23 0:18	
D3-NMeFOSAA	91.8		20-150					5/4/23 0:18	
D5-NEtFOSAA	94.0		20-150					5/4/23 0:18	
D7-NMeFOSE	87.5		20-150					5/4/23 0:18	
D9-NEtFOSE	84.2		20-150					5/4/23 0:18	
13C3-HFPO-DA	82.6		20-150					5/4/23 0:18	

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: 23D0406

Date Received: 4/5/2023

Field Sample #: PD-CP-01-040423

Sampled: 4/4/2023 14:15

Sample ID: 23D0406-02

Sample Matrix: 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		Draft Method 1633	4/6/23	4/6/23 13:52	LL

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: 23D0406

Date Received: 4/5/2023

Field Sample #: ASF-CP-00-040423

Sampled: 4/4/2023 14:55

Sample ID: 23D0406-03

Sample Matrix: 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)	40	3.5	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluoropentanoic acid (PFPeA)	22	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorohexanoic acid (PFHxA)	34	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluoroheptanoic acid (PFHpA)	14	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorooctanoic acid (PFOA)	44	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorononanoic acid (PFNA)	9.9	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorodecanoic acid (PFDA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorobutanesulfonic acid (PFBS)	5.3	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluoropentanesulfonic acid (PFPeS)	4.1	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorohexanesulfonic acid (PFHxS)	9.5	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorooctanesulfonic acid (PFOS)	13	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.5	ng/L	1	PF-18	Draft Method 1633	4/12/23	5/4/23 0:34	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.5	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.5	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
N-EtFOSAA (NEtFOSAA)	3.8	0.88	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	8.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	8.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.5	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	3.5	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.5	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
11Cl-PF3OUdS (F53B Major)	ND	3.5	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	8.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	44	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
3-Perfluoroheptyl propanoic acid (FHPrPA) (7:3FTCA)	ND	44	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	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: 23D0406

Date Received: 4/5/2023

Field Sample #: ASF-CP-00-040423

Sampled: 4/4/2023 14:55

Sample ID: 23D0406-03

Sample Matrix: 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	4/12/23	5/4/23 0:34	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:34	AMS
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
13C4-PFBA	101		20-150					5/4/23 0:34	
13C5-PFPeA	89.9		20-150					5/4/23 0:34	
13C5-PFHxA	93.8		20-150					5/4/23 0:34	
13C4-PFHpA	97.4		20-150					5/4/23 0:34	
13C8-PFOA	89.4		20-150					5/4/23 0:34	
13C9-PFNA	88.4		20-150					5/4/23 0:34	
13C6-PFDA	89.2		20-150					5/4/23 0:34	
13C7-PFUnA	88.2		20-150					5/4/23 0:34	
13C2-PFDoA	83.7		20-150					5/4/23 0:34	
13C2-PFTeDA	82.1		20-150					5/4/23 0:34	
13C3-PFBS	89.7		20-150					5/4/23 0:34	
13C3-PFHxS	88.2		20-150					5/4/23 0:34	
13C8-PFOS	87.1		20-150					5/4/23 0:34	
13C2-4:2FTS	191	*	20-150		PF-18			5/4/23 0:34	
13C2-6:2FTS	139		20-150					5/4/23 0:34	
13C2-8:2FTS	103		20-150					5/4/23 0:34	
13C8-PFOSA	76.5		20-150					5/4/23 0:34	
D3-NMeFOSA	74.2		20-150					5/4/23 0:34	
D5-NEtFOSA	74.4		20-150					5/4/23 0:34	
D3-NMeFOSAA	85.2		20-150					5/4/23 0:34	
D5-NEtFOSAA	88.6		20-150					5/4/23 0:34	
D7-NMeFOSE	84.2		20-150					5/4/23 0:34	
D9-NEtFOSE	80.7		20-150					5/4/23 0:34	
13C3-HFPO-DA	93.6		20-150					5/4/23 0:34	

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: 23D0406

Date Received: 4/5/2023

Field Sample #: ASF-CP-00-040423

Sampled: 4/4/2023 14:55

Sample ID: 23D0406-03

Sample Matrix: 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		Draft Method 1633	4/6/23	4/6/23 13:52	LL

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: 23D0406

Date Received: 4/5/2023

Field Sample #: ASF-CP-01-040423

Sampled: 4/4/2023 15:10

Sample ID: 23D0406-04

Sample Matrix: 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)	39	3.7	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluoropentanoic acid (PFPeA)	23	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorohexanoic acid (PFHxA)	33	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluoroheptanoic acid (PFHpA)	14	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorooctanoic acid (PFOA)	43	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorononanoic acid (PFNA)	8.6	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorodecanoic acid (PFDA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorobutanesulfonic acid (PFBS)	5.6	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluoropetanesulfonic acid (PFPeS)	3.9	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorohexanesulfonic acid (PFHxS)	9.5	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorooctanesulfonic acid (PFOS)	13	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.7	ng/L	1	PF-18	Draft Method 1633	4/12/23	5/4/23 0:50	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.7	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.7	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
N-EtFOSAA (NEtFOSAA)	3.1	0.93	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.3	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.3	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.7	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	3.7	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.7	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
11Cl-PF3OUDS (F53B Major)	ND	3.7	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.3	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	47	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	47	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	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: 23D0406

Date Received: 4/5/2023

Field Sample #: ASF-CP-01-040423

Sampled: 4/4/2023 15:10

Sample ID: 23D0406-04

Sample Matrix: 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	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		Draft Method 1633	4/12/23	5/4/23 0:50	AMS
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
13C4-PFBA	92.2		20-150					5/4/23 0:50	
13C5-PFPeA	85.6		20-150					5/4/23 0:50	
13C5-PFHxA	88.3		20-150					5/4/23 0:50	
13C4-PFHpA	89.4		20-150					5/4/23 0:50	
13C8-PFOA	84.8		20-150					5/4/23 0:50	
13C9-PFNA	82.1		20-150					5/4/23 0:50	
13C6-PFDA	86.6		20-150					5/4/23 0:50	
13C7-PFUnA	85.7		20-150					5/4/23 0:50	
13C2-PFDoA	82.5		20-150					5/4/23 0:50	
13C2-PFTeDA	78.0		20-150					5/4/23 0:50	
13C3-PFBS	88.9		20-150					5/4/23 0:50	
13C3-PFHxS	86.4		20-150					5/4/23 0:50	
13C8-PFOS	86.7		20-150					5/4/23 0:50	
13C2-4:2FTS	187	*	20-150		PF-18			5/4/23 0:50	
13C2-6:2FTS	136		20-150					5/4/23 0:50	
13C2-8:2FTS	105		20-150					5/4/23 0:50	
13C8-PFOSA	75.3		20-150					5/4/23 0:50	
D3-NMeFOSA	68.4		20-150					5/4/23 0:50	
D5-NEtFOSA	72.1		20-150					5/4/23 0:50	
D3-NMeFOSAA	83.2		20-150					5/4/23 0:50	
D5-NEtFOSAA	85.1		20-150					5/4/23 0:50	
D7-NMeFOSE	79.7		20-150					5/4/23 0:50	
D9-NEtFOSE	77.7		20-150					5/4/23 0:50	
13C3-HFPO-DA	91.0		20-150					5/4/23 0:50	

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: 23D0406

Date Received: 4/5/2023

Field Sample #: ASF-CP-01-040423

Sampled: 4/4/2023 15:10

Sample ID: 23D0406-04

Sample Matrix: 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		Draft Method 1633	4/6/23	4/6/23 13:52	LL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**Sample Extraction Data****Draft Method 1633**

Lab Number [Field ID]	Batch	Initial [mL]	Date
23D0406-01 [PD-CP-00-040423]	B336345	50.0	04/06/23
23D0406-02 [PD-CP-01-040423]	B336345	50.0	04/06/23
23D0406-03 [ASF-CP-00-040423]	B336345	50.0	04/06/23
23D0406-04 [ASF-CP-01-040423]	B336345	50.0	04/06/23

Prep Method: Draft Method 1633 Analytical Method: Draft Method 1633 **Meatballs were extracted on 4/6/2023 per NO PREP in Batch B336345**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23D0406-01 [PD-CP-00-040423]	B336795	556	5.00	04/12/23
23D0406-02 [PD-CP-01-040423]	B336795	533	5.00	04/12/23
23D0406-03 [ASF-CP-00-040423]	B336795	569	5.00	04/12/23
23D0406-04 [ASF-CP-01-040423]	B336795	537	5.00	04/12/23

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 B336795 - Draft Method 1633										
Blank (B336795-BLK1)				Prepared: 04/12/23 Analyzed: 05/03/23						
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							
Perfluoropetanesulfonic 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-Dioxo-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 (PFEEA)	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	96.3		ng/L	97.8		98.5	20-150			

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 B336795 - Draft Method 1633
Blank (B336795-BLK1)

Prepared: 04/12/23 Analyzed: 05/03/23

Surrogate: 13C5-PFPeA	48.4		ng/L	48.9		99.0	20-150			
Surrogate: 13C5-PFHxA	23.4		ng/L	24.5		95.8	20-150			
Surrogate: 13C4-PFHpA	22.8		ng/L	24.5		93.4	20-150			
Surrogate: 13C8-PFOA	23.8		ng/L	24.5		97.2	20-150			
Surrogate: 13C9-PFNA	11.5		ng/L	12.2		93.7	20-150			
Surrogate: 13C6-PFDA	11.6		ng/L	12.2		95.0	20-150			
Surrogate: 13C7-PFUnA	11.5		ng/L	12.2		94.2	20-150			
Surrogate: 13C2-PFDoA	11.0		ng/L	12.2		89.9	20-150			
Surrogate: 13C2-PFTeDA	10.7		ng/L	12.2		87.2	20-150			
Surrogate: 13C3-PFBS	24.9		ng/L	24.5		102	20-150			
Surrogate: 13C3-PFHxS	25.1		ng/L	24.5		103	20-150			
Surrogate: 13C8-PFOS	22.8		ng/L	24.5		93.4	20-150			
Surrogate: 13C2-4:2FTS	51.4		ng/L	48.9		105	20-150			
Surrogate: 13C2-6:2FTS	55.1		ng/L	48.9		113	20-150			
Surrogate: 13C2-8:2FTS	55.4		ng/L	48.9		113	20-150			
Surrogate: 13C8-PFOA	21.5		ng/L	24.5		87.8	20-150			
Surrogate: D3-NMeFOSA	18.5		ng/L	24.5		75.6	20-150			
Surrogate: D5-NEtFOSA	19.6		ng/L	24.5		80.1	20-150			
Surrogate: D3-NMeFOSAA	48.1		ng/L	48.9		98.3	20-150			
Surrogate: D5-NEtFOSAA	48.5		ng/L	48.9		99.1	20-150			
Surrogate: D7-NMeFOSE	236		ng/L	245		96.3	20-150			
Surrogate: D9-NEtFOSE	232		ng/L	245		94.9	20-150			
Surrogate: 13C3-HFPO-DA	102		ng/L	97.8		105	20-150			

LCS (B336795-BS1)

Prepared: 04/12/23 Analyzed: 05/03/23

Perfluorobutanoic acid (PFBA)	4.34	3.9	ng/L	7.82		55.5	40-150			
Perfluoropentanoic acid (PFPeA)	3.64	2.0	ng/L	3.91		93.2	40-150			
Perfluorohexanoic acid (PFHxA)	1.69	0.98	ng/L	1.95		86.3	40-150			
Perfluoroheptanoic acid (PFHpA)	1.82	0.98	ng/L	1.95		93.1	40-150			
Perfluorooctanoic acid (PFOA)	1.76	0.98	ng/L	1.95		90.2	40-150			
Perfluorononanoic acid (PFNA)	1.72	0.98	ng/L	1.95		88.1	40-150			
Perfluorodecanoic acid (PFDA)	1.77	0.98	ng/L	1.95		90.8	40-150			
Perfluoroundecanoic acid (PFUnA)	1.73	0.98	ng/L	1.95		88.3	40-150			
Perfluorododecanoic acid (PFDoA)	1.76	0.98	ng/L	1.95		90.0	40-150			
Perfluorotridecanoic acid (PFTTrDA)	1.73	0.98	ng/L	1.95		88.6	40-150			
Perfluorotetradecanoic acid (PFTeDA)	1.76	0.98	ng/L	1.95		89.9	40-150			
Perfluorobutanesulfonic acid (PFBS)	1.54	0.98	ng/L	1.73		88.6	40-150			
Perfluoropentanesulfonic acid (PFPeS)	1.69	0.98	ng/L	1.84		92.2	40-150			
Perfluorohexanesulfonic acid (PFHxS)	1.74	0.98	ng/L	1.79		97.5	40-150			
Perfluoroheptanesulfonic acid (PFHpS)	1.68	0.98	ng/L	1.86		90.3	40-150			
Perfluorooctanesulfonic acid (PFOS)	1.77	0.98	ng/L	1.81		97.8	40-150			
Perfluorononanesulfonic acid (PFNS)	1.74	0.98	ng/L	1.88		92.6	40-150			
Perfluorodecanesulfonic acid (PFDS)	1.72	0.98	ng/L	1.89		91.2	40-150			
Perfluorododecanesulfonic acid (PFDoS)	1.78	0.98	ng/L	1.90		93.9	40-150			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	6.79	3.9	ng/L	7.33		92.7	40-150			
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	6.73	3.9	ng/L	7.43		90.6	40-150			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	7.09	3.9	ng/L	7.52		94.3	40-150			
Perfluorooctanesulfonamide (PFOSA)	1.76	0.98	ng/L	1.95		89.9	40-150			
N-methyl perfluorooctanesulfonamide (NMeFOSA)	1.76	0.98	ng/L	1.95		90.3	40-150			

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 B336795 - Draft Method 1633
LCS (B336795-BS1)

Prepared: 04/12/23 Analyzed: 05/03/23

N-ethyl perfluorooctanesulfonamide (NEtFOSA)	2.01	0.98	ng/L	1.95		103	40-150			
N-MeFOSAA (NMeFOSAA)	1.50	0.98	ng/L	1.95		77.0	40-150			
N-EtFOSAA (NEtFOSAA)	1.52	0.98	ng/L	1.95		77.9	40-150			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	18.6	9.8	ng/L	19.5		95.1	40-150			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	18.0	9.8	ng/L	19.5		92.0	40-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	6.95	3.9	ng/L	7.82		88.9	40-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	5.91	3.9	ng/L	7.38		80.2	40-150			
9Cl-PF3ONS (F53B Minor)	5.33	3.9	ng/L	7.33		72.7	40-150			
11Cl-PF3OUDS (F53B Major)	5.32	3.9	ng/L	7.38		72.1	40-150			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	16.1	9.8	ng/L	19.5		82.5	40-150			
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	80.2	49	ng/L	97.7		82.1	40-150			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	73.3	49	ng/L	97.7		75.0	40-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	2.91	2.0	ng/L	3.48		83.6	40-150			
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.22	2.0	ng/L	3.91		82.4	40-150			
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.23	2.0	ng/L	3.91		82.5	40-150			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.32	2.0	ng/L	3.91		84.9	40-150			
Surrogate: 13C4-PFBA	85.9		ng/L	97.7		87.9	20-150			
Surrogate: 13C5-PFPeA	45.8		ng/L	48.9		93.7	20-150			
Surrogate: 13C5-PFHxA	23.0		ng/L	24.4		94.3	20-150			
Surrogate: 13C4-PFHpA	22.5		ng/L	24.4		92.2	20-150			
Surrogate: 13C8-PFOA	21.8		ng/L	24.4		89.2	20-150			
Surrogate: 13C9-PFNA	11.5		ng/L	12.2		94.0	20-150			
Surrogate: 13C6-PFDA	11.3		ng/L	12.2		92.5	20-150			
Surrogate: 13C7-PFUnA	11.1		ng/L	12.2		90.6	20-150			
Surrogate: 13C2-PFDoA	10.7		ng/L	12.2		87.2	20-150			
Surrogate: 13C2-PFTeDA	10.5		ng/L	12.2		85.9	20-150			
Surrogate: 13C3-PFBS	23.7		ng/L	24.4		97.1	20-150			
Surrogate: 13C3-PFHxS	22.9		ng/L	24.4		93.7	20-150			
Surrogate: 13C8-PFOS	21.8		ng/L	24.4		89.4	20-150			
Surrogate: 13C2-4:2FTS	48.3		ng/L	48.9		98.9	20-150			
Surrogate: 13C2-6:2FTS	50.5		ng/L	48.9		103	20-150			
Surrogate: 13C2-8:2FTS	49.7		ng/L	48.9		102	20-150			
Surrogate: 13C8-PFOSA	20.1		ng/L	24.4		82.3	20-150			
Surrogate: D3-NMeFOSA	18.2		ng/L	24.4		74.6	20-150			
Surrogate: D5-NEtFOSA	18.6		ng/L	24.4		76.0	20-150			
Surrogate: D3-NMeFOSAA	46.1		ng/L	48.9		94.3	20-150			
Surrogate: D5-NEtFOSAA	44.7		ng/L	48.9		91.5	20-150			
Surrogate: D7-NMeFOSE	221		ng/L	244		90.6	20-150			
Surrogate: D9-NEtFOSE	221		ng/L	244		90.3	20-150			
Surrogate: 13C3-HFPO-DA	103		ng/L	97.7		106	20-150			

LCS (B336795-BS2)

Prepared: 04/12/23 Analyzed: 05/03/23

Perfluorobutanoic acid (PFBA)	91.9	3.9	ng/L	93.2		98.7	40-150			
Perfluoropentanoic acid (PFPeA)	45.4	1.9	ng/L	46.6		97.5	40-150			

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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
Batch B336795 - Draft Method 1633										
LCS (B336795-BS2)										
				Prepared: 04/12/23 Analyzed: 05/03/23						
Perfluorohexanoic acid (PFHxA)	22.6	0.97	ng/L	23.3		96.8	40-150			
Perfluoroheptanoic acid (PFHpA)	22.7	0.97	ng/L	23.3		97.5	40-150			
Perfluorooctanoic acid (PFOA)	22.3	0.97	ng/L	23.3		95.7	40-150			
Perfluorononanoic acid (PFNA)	23.5	0.97	ng/L	23.3		101	40-150			
Perfluorodecanoic acid (PFDA)	22.6	0.97	ng/L	23.3		97.1	40-150			
Perfluoroundecanoic acid (PFUnA)	22.7	0.97	ng/L	23.3		97.4	40-150			
Perfluorododecanoic acid (PFDoA)	22.6	0.97	ng/L	23.3		96.9	40-150			
Perfluorotridecanoic acid (PFTrDA)	20.8	0.97	ng/L	23.3		89.1	40-150			
Perfluorotetradecanoic acid (PFTeDA)	22.5	0.97	ng/L	23.3		96.8	40-150			
Perfluorobutanesulfonic acid (PFBS)	19.7	0.97	ng/L	20.7		95.2	40-150			
Perfluoropentanesulfonic acid (PFPeS)	21.2	0.97	ng/L	21.9		96.7	40-150			
Perfluorohexanesulfonic acid (PFHxS)	20.2	0.97	ng/L	21.3		94.9	40-150			
Perfluoroheptanesulfonic acid (PFHpS)	22.9	0.97	ng/L	22.2		103	40-150			
Perfluorooctanesulfonic acid (PFOS)	20.1	0.97	ng/L	21.6		92.9	40-150			
Perfluorononanesulfonic acid (PFNS)	22.2	0.97	ng/L	22.4		99.2	40-150			
Perfluorodecanesulfonic acid (PFDS)	22.6	0.97	ng/L	22.5		101	40-150			
Perfluorododecanesulfonic acid (PFDoS)	21.9	0.97	ng/L	22.6		96.9	40-150			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	90.0	3.9	ng/L	87.3		103	40-150			
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	85.6	3.9	ng/L	88.5		96.7	40-150			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	90.3	3.9	ng/L	89.7		101	40-150			
Perfluorooctanesulfonamide (PFOSA)	22.4	0.97	ng/L	23.3		96.2	40-150			
N-methyl perfluorooctanesulfonamide (NMeFOSA)	22.3	0.97	ng/L	23.3		95.7	40-150			
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	22.1	0.97	ng/L	23.3		94.8	40-150			
N-MeFOSAA (NMeFOSAA)	22.6	0.97	ng/L	23.3		97.0	40-150			
N-EtFOSAA (NEtFOSAA)	22.2	0.97	ng/L	23.3		95.2	40-150			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	228	9.7	ng/L	233		97.9	40-150			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	249	9.7	ng/L	233		107	40-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	96.1	3.9	ng/L	93.2		103	40-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	78.0	3.9	ng/L	87.9		88.7	40-150			
9Cl-PF3ONS (F53B Minor)	73.4	3.9	ng/L	87.3		84.1	40-150			
11Cl-PF3OUDS (F53B Major)	72.1	3.9	ng/L	87.9		82.0	40-150			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	203	9.7	ng/L	233		87.2	40-150			
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	1010	49	ng/L	1160		86.8	40-150			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	904	49	ng/L	1160		77.6	40-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	39.0	1.9	ng/L	41.5		94.0	40-150			
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.6	1.9	ng/L	46.6		87.2	40-150			
Perfluoro-4-methoxybutanoic acid (PFMBA)	42.5	1.9	ng/L	46.6		91.3	40-150			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	49.7	1.9	ng/L	46.6		107	40-150			
Surrogate: 13C4-PFBA	95.0		ng/L	97.0		97.9	20-150			
Surrogate: 13C5-PFPeA	48.3		ng/L	48.5		99.5	20-150			
Surrogate: 13C5-PFHxA	23.7		ng/L	24.3		97.5	20-150			

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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 B336795 - Draft Method 1633
LCS (B336795-BS2)

Prepared: 04/12/23 Analyzed: 05/03/23

Surrogate: 13C4-PFHpA	23.3		ng/L	24.3		95.9	20-150			
Surrogate: 13C8-PFOA	23.9		ng/L	24.3		98.3	20-150			
Surrogate: 13C9-PFNA	11.3		ng/L	12.1		93.3	20-150			
Surrogate: 13C6-PFDA	11.9		ng/L	12.1		97.9	20-150			
Surrogate: 13C7-PFUnA	11.8		ng/L	12.1		97.0	20-150			
Surrogate: 13C2-PFDoA	11.4		ng/L	12.1		94.0	20-150			
Surrogate: 13C2-PFTeDA	10.8		ng/L	12.1		88.8	20-150			
Surrogate: 13C3-PFBS	24.3		ng/L	24.3		100	20-150			
Surrogate: 13C3-PFHxS	23.8		ng/L	24.3		98.1	20-150			
Surrogate: 13C8-PFOS	23.9		ng/L	24.3		98.5	20-150			
Surrogate: 13C2-4:2FTS	46.8		ng/L	48.5		96.4	20-150			
Surrogate: 13C2-6:2FTS	51.4		ng/L	48.5		106	20-150			
Surrogate: 13C2-8:2FTS	47.1		ng/L	48.5		97.0	20-150			
Surrogate: 13C8-PFOSA	21.6		ng/L	24.3		88.9	20-150			
Surrogate: D3-NMeFOSA	20.2		ng/L	24.3		83.4	20-150			
Surrogate: D5-NEtFOSA	21.9		ng/L	24.3		90.2	20-150			
Surrogate: D3-NMeFOSAA	50.4		ng/L	48.5		104	20-150			
Surrogate: D5-NEtFOSAA	46.9		ng/L	48.5		96.7	20-150			
Surrogate: D7-NMeFOSE	240		ng/L	243		98.8	20-150			
Surrogate: D9-NEtFOSE	229		ng/L	243		94.4	20-150			
Surrogate: 13C3-HFPO-DA	102		ng/L	97.0		105	20-150			

Batch B339455 - Draft Method 1633
Blank (B339455-BLK1)

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

Perfluorobutanoic acid (PFBA)	ND	4.0	ng/L
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L
Perfluorohexanoic acid (PFHxA)	ND	0.99	ng/L
Perfluoroheptanoic acid (PFHpA)	ND	0.99	ng/L
Perfluorooctanoic acid (PFOA)	ND	0.99	ng/L
Perfluorononanoic acid (PFNA)	ND	0.99	ng/L
Perfluorodecanoic acid (PFDA)	ND	0.99	ng/L
Perfluoroundecanoic acid (PFUnA)	ND	0.99	ng/L
Perfluorododecanoic acid (PFDoA)	ND	0.99	ng/L
Perfluorotridecanoic acid (PFTrDA)	ND	0.99	ng/L
Perfluorotetradecanoic acid (PFTeDA)	ND	0.99	ng/L
Perfluorobutanesulfonic acid (PFBS)	ND	0.99	ng/L
Perfluoropetanesulfonic acid (PFPeS)	ND	0.99	ng/L
Perfluorohexanesulfonic acid (PFHxS)	ND	0.99	ng/L
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.99	ng/L
Perfluorooctanesulfonic acid (PFOS)	ND	0.99	ng/L
Perfluorononanesulfonic acid (PFNS)	ND	0.99	ng/L
Perfluorodecanesulfonic acid (PFDS)	ND	0.99	ng/L
Perfluorododecanesulfonic acid (PFDoS)	ND	0.99	ng/L
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	4.0	ng/L
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	4.0	ng/L
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	4.0	ng/L
Perfluorooctanesulfonamide (PFOSA)	ND	0.99	ng/L
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.99	ng/L

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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 B339455 - Draft Method 1633
Blank (B339455-BLK1)

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

N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.99	ng/L
N-MeFOSAA (NMeFOSAA)	ND	0.99	ng/L
N-EtFOSAA (NEtFOSAA)	ND	0.99	ng/L
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.9	ng/L
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.9	ng/L
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.0	ng/L
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	4.0	ng/L
9Cl-PF3ONS (F53B Minor)	ND	4.0	ng/L
11Cl-PF3OUdS (F53B Major)	ND	4.0	ng/L
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.9	ng/L
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA) (5:3FTCA)	ND	50	ng/L
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	50	ng/L
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	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	83.7		ng/L	99.0		84.5	20-150
Surrogate: 13C5-PFPeA	41.4		ng/L	49.5		83.5	20-150
Surrogate: 13C5-PFHxA	20.5		ng/L	24.8		82.7	20-150
Surrogate: 13C4-PFHpA	21.9		ng/L	24.8		88.6	20-150
Surrogate: 13C8-PFOA	20.3		ng/L	24.8		82.1	20-150
Surrogate: 13C9-PFNA	10.2		ng/L	12.4		82.6	20-150
Surrogate: 13C6-PFDA	9.91		ng/L	12.4		80.1	20-150
Surrogate: 13C7-PFUnA	10.3		ng/L	12.4		82.9	20-150
Surrogate: 13C2-PFDoA	9.47		ng/L	12.4		76.5	20-150
Surrogate: 13C2-PFTeDA	9.94		ng/L	12.4		80.3	20-150
Surrogate: 13C3-PFBS	18.9		ng/L	24.8		76.2	20-150
Surrogate: 13C3-PFHxS	21.1		ng/L	24.8		85.3	20-150
Surrogate: 13C8-PFOS	20.4		ng/L	24.8		82.6	20-150
Surrogate: 13C2-4:2FTS	44.3		ng/L	49.5		89.5	20-150
Surrogate: 13C2-6:2FTS	50.8		ng/L	49.5		103	20-150
Surrogate: 13C2-8:2FTS	47.8		ng/L	49.5		96.6	20-150
Surrogate: 13C8-PFOSA	19.3		ng/L	24.8		77.8	20-150
Surrogate: D3-NMeFOSA	12.5		ng/L	24.8		50.5	20-150
Surrogate: D5-NEtFOSA	11.9		ng/L	24.8		48.0	20-150
Surrogate: D3-NMeFOSAA	38.7		ng/L	49.5		78.2	20-150
Surrogate: D5-NEtFOSAA	36.9		ng/L	49.5		74.5	20-150
Surrogate: D7-NMeFOSE	180		ng/L	248		72.8	20-150
Surrogate: D9-NEtFOSE	172		ng/L	248		69.6	20-150
Surrogate: 13C3-HFPO-DA	91.1		ng/L	99.0		91.9	20-150

LCS (B339455-BS1)

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

Perfluorobutanoic acid (PFBA)	8.55	3.9	ng/L	7.79		110	40-150
Perfluoropentanoic acid (PFPeA)	3.93	1.9	ng/L	3.90		101	40-150

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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 B339455 - Draft Method 1633
LCS (B339455-BS1)

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

Perfluorohexanoic acid (PFHxA)	1.81	0.97	ng/L	1.95		93.1	40-150			
Perfluoroheptanoic acid (PFHpA)	1.76	0.97	ng/L	1.95		90.2	40-150			
Perfluorooctanoic acid (PFOA)	1.84	0.97	ng/L	1.95		94.7	40-150			
Perfluorononanoic acid (PFNA)	1.79	0.97	ng/L	1.95		91.8	40-150			
Perfluorodecanoic acid (PFDA)	1.74	0.97	ng/L	1.95		89.2	40-150			
Perfluoroundecanoic acid (PFUnA)	1.80	0.97	ng/L	1.95		92.3	40-150			
Perfluorododecanoic acid (PFDoA)	1.89	0.97	ng/L	1.95		96.9	40-150			
Perfluorotridecanoic acid (PFTrDA)	1.71	0.97	ng/L	1.95		87.6	40-150			
Perfluorotetradecanoic acid (PFTeDA)	1.81	0.97	ng/L	1.95		92.8	40-150			
Perfluorobutanesulfonic acid (PFBS)	1.68	0.97	ng/L	1.73		97.4	40-150			
Perfluoropentanesulfonic acid (PFPeS)	1.84	0.97	ng/L	1.83		101	40-150			
Perfluorohexanesulfonic acid (PFHxS)	1.85	0.97	ng/L	1.78		104	40-150			
Perfluoroheptanesulfonic acid (PFHpS)	1.80	0.97	ng/L	1.86		97.1	40-150			
Perfluorooctanesulfonic acid (PFOS)	1.62	0.97	ng/L	1.81		89.6	40-150			
Perfluorononanesulfonic acid (PFNS)	1.59	0.97	ng/L	1.88		84.8	40-150			
Perfluorodecanesulfonic acid (PFDS)	1.72	0.97	ng/L	1.88		91.7	40-150			
Perfluorododecanesulfonic acid (PFDoS)	1.76	0.97	ng/L	1.89		93.1	40-150			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	6.72	3.9	ng/L	7.31		92.0	40-150			
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	7.74	3.9	ng/L	7.41		105	40-150			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	7.06	3.9	ng/L	7.50		94.2	40-150			
Perfluorooctanesulfonamide (PFOSA)	1.84	0.97	ng/L	1.95		94.3	40-150			
N-methyl perfluorooctanesulfonamide (NMeFOSA)	1.79	0.97	ng/L	1.95		91.6	40-150			
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	1.69	0.97	ng/L	1.95		86.8	40-150			
N-MeFOSAA (NMeFOSAA)	1.72	0.97	ng/L	1.95		88.1	40-150			
N-EtFOSAA (NEtFOSAA)	1.68	0.97	ng/L	1.95		86.2	40-150			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	18.9	9.7	ng/L	19.5		97.1	40-150			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	18.7	9.7	ng/L	19.5		96.2	40-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	6.39	3.9	ng/L	7.79		82.0	40-150			
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	6.12	3.9	ng/L	7.36		83.2	40-150			
9Cl-PF3ONS (F53B Minor)	6.08	3.9	ng/L	7.31		83.2	40-150			
11Cl-PF3OUDS (F53B Major)	6.13	3.9	ng/L	7.36		83.4	40-150			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	15.1	9.7	ng/L	19.5		77.7	40-150			
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	78.2	49	ng/L	97.4		80.2	40-150			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	77.3	49	ng/L	97.4		79.3	40-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	3.24	1.9	ng/L	3.47		93.4	40-150			
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.88	1.9	ng/L	3.90		99.4	40-150			
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.54	1.9	ng/L	3.90		90.7	40-150			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.56	1.9	ng/L	3.90		91.3	40-150			
Surrogate: 13C4-PFBA	75.6		ng/L	97.4		77.6	20-150			
Surrogate: 13C5-PFPeA	38.1		ng/L	48.7		78.3	20-150			
Surrogate: 13C5-PFHxA	18.9		ng/L	24.4		77.7	20-150			

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 B339455 - Draft Method 1633
LCS (B339455-BS1)

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

Surrogate: 13C4-PFHpA	20.4		ng/L	24.4		83.8	20-150			
Surrogate: 13C8-PFOA	18.7		ng/L	24.4		76.8	20-150			
Surrogate: 13C9-PFNA	9.25		ng/L	12.2		75.9	20-150			
Surrogate: 13C6-PFDA	9.31		ng/L	12.2		76.5	20-150			
Surrogate: 13C7-PFUnA	8.78		ng/L	12.2		72.1	20-150			
Surrogate: 13C2-PFDoA	8.59		ng/L	12.2		70.5	20-150			
Surrogate: 13C2-PFTeDA	8.35		ng/L	12.2		68.5	20-150			
Surrogate: 13C3-PFBS	16.4		ng/L	24.4		67.4	20-150			
Surrogate: 13C3-PFHxS	18.0		ng/L	24.4		73.7	20-150			
Surrogate: 13C8-PFOS	18.8		ng/L	24.4		77.3	20-150			
Surrogate: 13C2-4:2FTS	39.1		ng/L	48.7		80.2	20-150			
Surrogate: 13C2-6:2FTS	37.9		ng/L	48.7		77.9	20-150			
Surrogate: 13C2-8:2FTS	37.4		ng/L	48.7		76.8	20-150			
Surrogate: 13C8-PFOSA	17.8		ng/L	24.4		73.2	20-150			
Surrogate: D3-NMeFOSA	12.6		ng/L	24.4		51.8	20-150			
Surrogate: D5-NEtFOSA	12.2		ng/L	24.4		50.2	20-150			
Surrogate: D3-NMeFOSAA	35.4		ng/L	48.7		72.7	20-150			
Surrogate: D5-NEtFOSAA	34.5		ng/L	48.7		70.8	20-150			
Surrogate: D7-NMeFOSE	160		ng/L	244		65.9	20-150			
Surrogate: D9-NEtFOSE	166		ng/L	244		68.0	20-150			
Surrogate: 13C3-HFPO-DA	81.5		ng/L	97.4		83.7	20-150			

LCS (B339455-BS2)

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

Perfluorobutanoic acid (PFBA)	91.3	3.9	ng/L	94.6		96.6	40-150			
Perfluoropentanoic acid (PFPeA)	46.3	2.0	ng/L	47.3		97.9	40-150			
Perfluorohexanoic acid (PFHxA)	22.5	0.99	ng/L	23.6		95.0	40-150			
Perfluoroheptanoic acid (PFHpA)	22.7	0.99	ng/L	23.6		95.8	40-150			
Perfluorooctanoic acid (PFOA)	23.4	0.99	ng/L	23.6		98.7	40-150			
Perfluorononanoic acid (PFNA)	21.8	0.99	ng/L	23.6		92.2	40-150			
Perfluorodecanoic acid (PFDA)	22.8	0.99	ng/L	23.6		96.5	40-150			
Perfluoroundecanoic acid (PFUnA)	21.9	0.99	ng/L	23.6		92.8	40-150			
Perfluorododecanoic acid (PFDoA)	23.1	0.99	ng/L	23.6		97.5	40-150			
Perfluorotridecanoic acid (PFTeDA)	22.3	0.99	ng/L	23.6		94.4	40-150			
Perfluorotetradecanoic acid (PFTeDA)	23.2	0.99	ng/L	23.6		98.0	40-150			
Perfluorobutanesulfonic acid (PFBS)	20.4	0.99	ng/L	21.0		97.1	40-150			
Perfluoropentanesulfonic acid (PFPeS)	21.9	0.99	ng/L	22.2		98.7	40-150			
Perfluorohexanesulfonic acid (PFHxS)	20.4	0.99	ng/L	21.6		94.5	40-150			
Perfluoroheptanesulfonic acid (PFHpS)	21.7	0.99	ng/L	22.5		96.1	40-150			
Perfluorooctanesulfonic acid (PFOS)	20.5	0.99	ng/L	21.9		93.3	40-150			
Perfluorononanesulfonic acid (PFNS)	20.3	0.99	ng/L	22.8		89.0	40-150			
Perfluorodecanesulfonic acid (PFDS)	22.2	0.99	ng/L	22.8		97.2	40-150			
Perfluorododecanesulfonic acid (PFDoS)	22.8	0.99	ng/L	22.9		99.2	40-150			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	86.8	3.9	ng/L	88.7		97.9	40-150			
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	87.1	3.9	ng/L	89.9		96.9	40-150			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	91.9	3.9	ng/L	91.1		101	40-150			
Perfluorooctanesulfonamide (PFOSA)	22.1	0.99	ng/L	23.6		93.4	40-150			
N-methyl perfluorooctanesulfonamide (NMeFOSA)	21.6	0.99	ng/L	23.6		91.3	40-150			
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	21.0	0.99	ng/L	23.6		89.0	40-150			
N-MeFOSAA (NMeFOSAA)	22.4	0.99	ng/L	23.6		94.8	40-150			

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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 B339455 - Draft Method 1633
LCS (B339455-BS2)

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

N-EtFOSAA (NEtFOSAA)	23.8	0.99	ng/L	23.6		101	40-150			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	236	9.9	ng/L	236		99.7	40-150			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	223	9.9	ng/L	236		94.3	40-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	89.9	3.9	ng/L	94.6		95.1	40-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	77.4	3.9	ng/L	89.3		86.7	40-150			
9Cl-PF3ONS (F53B Minor)	82.0	3.9	ng/L	88.7		92.4	40-150			
11Cl-PF3OUdS (F53B Major)	82.0	3.9	ng/L	89.3		91.9	40-150			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	212	9.9	ng/L	236		89.8	40-150			
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA) (5:3FTCA)	1100	49	ng/L	1180		93.3	40-150			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	1120	49	ng/L	1180		95.0	40-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	39.6	2.0	ng/L	42.1		94.2	40-150			
Perfluoro-3-methoxypropanoic acid (PFMPA)	45.7	2.0	ng/L	47.3		96.6	40-150			
Perfluoro-4-methoxybutanoic acid (PFMBA)	43.6	2.0	ng/L	47.3		92.1	40-150			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	45.3	2.0	ng/L	47.3		95.8	40-150			
Surrogate: 13C4-PFBA	78.1		ng/L	98.5		79.2	20-150			
Surrogate: 13C5-PFPeA	39.4		ng/L	49.3		79.9	20-150			
Surrogate: 13C5-PFHxA	19.1		ng/L	24.6		77.6	20-150			
Surrogate: 13C4-PFHpA	20.4		ng/L	24.6		82.8	20-150			
Surrogate: 13C8-PFOA	19.3		ng/L	24.6		78.4	20-150			
Surrogate: 13C9-PFNA	9.77		ng/L	12.3		79.3	20-150			
Surrogate: 13C6-PFDA	9.12		ng/L	12.3		74.0	20-150			
Surrogate: 13C7-PFUnA	8.77		ng/L	12.3		71.2	20-150			
Surrogate: 13C2-PFDoA	8.66		ng/L	12.3		70.3	20-150			
Surrogate: 13C2-PFTeDA	8.30		ng/L	12.3		67.4	20-150			
Surrogate: 13C3-PFBS	17.2		ng/L	24.6		70.0	20-150			
Surrogate: 13C3-PFHxS	18.3		ng/L	24.6		74.1	20-150			
Surrogate: 13C8-PFOS	19.4		ng/L	24.6		78.9	20-150			
Surrogate: 13C2-4:2FTS	38.5		ng/L	49.3		78.1	20-150			
Surrogate: 13C2-6:2FTS	39.5		ng/L	49.3		80.1	20-150			
Surrogate: 13C2-8:2FTS	40.0		ng/L	49.3		81.1	20-150			
Surrogate: 13C8-PFOA	19.1		ng/L	24.6		77.5	20-150			
Surrogate: D3-NMeFOSA	15.6		ng/L	24.6		63.2	20-150			
Surrogate: D5-NEtFOSA	15.5		ng/L	24.6		63.1	20-150			
Surrogate: D3-NMeFOSAA	35.7		ng/L	49.3		72.4	20-150			
Surrogate: D5-NEtFOSAA	35.3		ng/L	49.3		71.6	20-150			
Surrogate: D7-NMeFOSE	175		ng/L	246		70.9	20-150			
Surrogate: D9-NEtFOSE	181		ng/L	246		73.3	20-150			
Surrogate: 13C3-HFPO-DA	82.8		ng/L	98.5		84.0	20-150			

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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 B336345 - Draft Method 1633
Blank (B336345-BLK1)

Prepared & Analyzed: 04/06/23

Total Suspended Solids ND 5.0 mg/L

LCS (B336345-BS1)

Prepared & Analyzed: 04/06/23

Total Suspended Solids 171 5.0 mg/L 200 85.5 64.1-125

Duplicate (B336345-DUP1)
Source: 23D0406-01

Prepared & Analyzed: 04/06/23

Total Suspended Solids ND 10 mg/L ND NC 10

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.
PF-17	Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.
PF-18	Duplicate analysis confirmed Extracted Internal Standard failure due to matrix effects.

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

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

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	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2023
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2023

Chain of Custody / Analysis Report

RAMBOLL		Sampler(s): Brian Dunn		Project Number:	
Contact: Michael Griffasi		Laboratory:		Analysis Required	
Address: 333 West Washington Street Syracuse, New York 13221-4873		Pace Analytical Services 39 Spruce St., East Longmeadow, MA 01028		Preservatives: (see key at bottom)	
Phone: (315) 956-6100		Attn: RI McCarthy		1 0 2 0 0 0 3 8 0 4	
E-mail: michael.griffasi@ramboll.com		Phone: 413-525-2332		Job Number:	
Project: NYSDEC Claremont Polychemical Site Q1 Sys Samples		Package Requirement: Level 2 and Level 3		Laboratory ID:	
Location: Old Bethpage, New York		EDD Format: EQUS 4 file		Lab Sample ID:	
Sample Identification		Holding Time:		Field Filtered? (Y / N)	
Unique Field Sample ID (sys_sample_code)	Sample Location	Date	Time	Grab (g) or Composite (C)	Number of Containers
1 PD-CP-00-040423	PD	4/4/2023	1400	G	9
2 PD-CP-01-040423	PD	4/4/2023	1415	G	9
3 PD-CP-MS-040423	PD	4/4/2023	1430	G	2
4 PD-CP-MSD-040423	PD	4/4/2023	1440	G	2
5 ASF-CP-00-040423	N	4/4/2023	1455	G	5
6 ASF-CP-01-040423	FD	4/4/2023	1510	G	5
7 TB-040423		4/4/2023		N	2
8					
9					
10					
11					
12					
13					
14					

Special Instructions:

Use the top boxes if the samples are to be shipped via courier (e.g., Fed Ex)		Condition:	
Relinquished by: Brian J. Dunn GES, Inc.	Courier Name: FedEx	Date: 4/4/23	Other comments or notes regarding condition of samples as received:
Time: 1600	Tracking #: 7913 384 FTL	Time: 1630	COOLER 4 of 4 2.412.0
Date:	Courier Name:	Date:	
Time:	Tracking #:	Time:	
Date:	Received By: Wampy US	Date: 4/5/23	
Relinquished by:	Courier Name:	Time: 1603	

https://www.fedex.com/en-us/home.html

FedEx® Tracking



DELIVERED

Wednesday

4/5/2023 at 10:03 am

Signed for by: C.HENRIQUEZ

↓ Obtain Proof of delivery

How was your delivery?



DELIVERY STATUS

Delivered

TRACKING ID

791316987589

FROM

OLD BETHPAGE, NY US

Label Created

12/1/2022 9:50 AM

PACKAGE RECEIVED BY FEDEX

MELVILLE, NY

4/4/2023 4:51 PM

IN TRANSIT

WINDSOR LOCKS, CT

4/5/2023 7:40 AM

OUT FOR DELIVERY

WINDSOR LOCKS, CT

4/5/2023 7:51 AM

DELIVERED

East Longmeadow, MA US

Delivered

4/5/2023 at 10:03 AM

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Shipment facts



39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.pacelabs.com

Log In Back-Sheet

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



Client Rumbolt
Project Claremont POLYchemical SITE 15X Sample
MCP/RCP Required NO
Deliverable Package Req. N/A
Location 012 Bethpage, NEW YORK
PWSID# (When Applicable) N/A

Arrival Method:

Courier ☐ Fed Ex ☒ Walk In ☐ Other ☐

Received By / Date / Time LA 4/5/23 1003

Back-Sheet By / Date / Time LA 4/5/23 1235

Temperature Method gun # 5

Temp ☒ < 6° C Actual Temperature 2.4/2.0

Rush Samples: Yes / ☒ No Notify

Short Hold: Yes / ☒ No Notify

	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: N/A ☐ ☐

Notes regarding Samples/COC outside of SOP:

Split from 2300395 (LA)
Split from 2300395

Container (Circle when applicable)			UnP	HCl	HNO3	H2SO4	NaOH	Trizma	NaS2O3	Other Preservative
1L	Amber	Plastic	6							
500 mL	Amber	Plastic								
250 mL	Amber	Plastic								
Other	Amber Clear	Plastic	4							
16oz	Amber	Clear								
8oz	Amber	Clear								
4oz	Amber	Clear								
2oz	Amber	Clear								
Col/Bacteria										
Flashpoint										
Plastic Bag										
SOC Kit										
Perchlorate										
Encore										
Frozen										
	Proper Headspace		UnP	HCl	MeOH	Bisulfate	DI	Thiosulfate	Sulfuric	Other
Vials										