BASIS OF DESIGN REPORT
ABANDONED SOLVENT CENTER SITE

POMPEY, NY
NYSDEC NO. 734035

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

PREPARED BY

TETRA TECH
175 NORTH CORPORATE DRIVE SUITE 100
BROOKFIELD, WI 53045
(262) 792-1282

TETRA TECH PROJECT NO. 117C-GE-00070 OCTOBER 2022

175 North Corporate Drive, Brookfield, Wisconsin 53045

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CERTIFICATION STATEMENT

I, James R. Dickson, certify that I am currently a NYS registered professional engineer and that this Basis of Design Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

089100 PE

10/14/2022 DATE

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Attachment 1: Design Drawings

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Attachment 3: Pilot Study Report

ACRONYMS AND ABBREVIATIONS

µg/L	Micrograms per Liter
1,4-D	1,4-Dioxane
COC	Chemicals of concern
CPVC	Chlorinated polyvinyl chloride
GAC	Granular Activated Carbon
gpm	Gallons Per Minute
HDPE	High Density Polyethylene
IR	Infrared
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
OM&M	Operation, Maintenance, and Monitoring
PLC	Programmable Logic Controller
PVC	Polyvinyl Chloride
Tetra Tech	Tetra Tech, Inc.
NYR 20	New York Route 20
VFD	variable frequency drive
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) prepared this Basis of Design Report on behalf of the Pompey, New York Abandoned Solvent Center Site Participating Parties to identify and develop a treatment option for the compounds of concern (COCs) consisting of specific volatile organic compounds (VOCs) and 1,4-dioxane (1,4-D) in groundwater at the Abandoned Solvent Center Site (Site).

This Basis of Design Report was prepared as requested by the New York State Department of Environmental Conservation (NYSDEC) in correspondence dated October 25, 2021, and the results of the pilot study completed at the site on April 6, 2022 (Tetra Tech, 2022). This report satisfies the requirements outlined in the Administrative Order on Consent (effective August 1, 1995) and the Partial Consent Decree (No. 97 CV-0976) dated December 15, 1997.

1.1 Background

The Site occupies approximately 6.5 acres at the intersection of New York Route 20 (NYR 20 or Cherry Valley Turnpike) and Ridge Road (County Road 128) in the Town of Pompey, Onondaga County, New York. NYR 20 forms the northwestern border of the site, and Ridge Road divides the east and west sides of the Site. The site is located on a gentle slope ranging from 3 to 5 percent slope and it slopes toward the intersection of NYR 20 and Ridge Road. The surrounding area is rural agricultural with several residential properties and one greenhouse business immediately across the street from the site.

The former septic system (tank and leach field) at the site appeared to be the primary source of COCs, specifically, 1,1,1-trichloroethane and trichloroethene and their respective breakdown products 1,1-dichloroethane and 1,2-dichloroethene. Water from the slurry wall-contained area collects in an underground sump that has pumps for transferring water into the equalization tank within the groundwater treatment building. Water from the equalization tank is currently pumped through an air stripper that removes the previously identified COCs.

As part of NYSDEC's emerging COC sampling requirements, 1,4-dioxane (1,4-D) was identified in the treatment system influent and effluent in the October 2018 quarterly sampling event. The effluent discharges to a drainage ditch along the southern side of NYR 20. The presence of 1,4-D in the discharge above the NYSDEC proposed finished water source guidance valve of 1 microgram per liter (µg/L) prompted the need to review the existing system's treatment capability and identify alternative technologies to augment or replace the existing treatment system. (The composition of the existing system is discussed in Section 2.)

On August 6, 2021, Tetra Tech submitted to the NYSDEC on behalf of the Participating Parties an evaluation of several technologies capable to treat 1,4-D and target VOCs in extracted groundwater to concentrations below applicable regulatory requirements. A carbon treatment option was selected as the preferred alternative based on research conducted during a focused feasibility study, recommendation by a granular activated carbon (GAC) media vendor (Calgon Carbon Corporation) experienced with similar

treatability studies at other sites, results from a successful implementation of the GAC technology at an adjacent point of entry treatment (POET) system, and the low capital and annual operation and maintenance (O&M) costs involved as compared to the other options.

Tetra Tech proposed a pilot study be performed to confirm the effectiveness of the selected GAC option in treating 1,4-D in the groundwater at the site. On October 25, 2021, the NYSDEC concurred with the proposal and requested a revised treatment system design plan for evaluation and approval. A pilot study using three GAC columns in series began on February 8, 2022 and was completed on April 6, 2022. The pilot study was designed to simulate full-scale batch groundwater treatment at a flow rate of 10 gallons per minute (gpm).

The GAC effectively removed 1,4-D to concentrations below the laboratory method detection limit of 0.2 micrograms per liter (µg/L). The study showed that during continuous operations of the system at full-scale, approximately 1.57 pounds of GAC will treat 1,000 gallons of water and approximately 637,000 gallons of groundwater will be treated before GAC change out is required.

Based on the results of the pilot study, a remedial design is completed for the proposed treatment system. This Basis of Design Report includes the design criteria, design basis, process system description, system layout, and associated drawings and specifications. The design drawings of the proposed system are included in Attachment 1 and cut sheets of the major components of the system are in Attachment 2. The Final Pilot Study Report is included in Attachment 3.

1.2 Scope of Pre-Design Activities

The project entails the construction of a redesigned groundwater treatment system to replace the existing treatment system and reduce the concentrations of COCs in groundwater below their respective screening levels. The scope of the project includes identifying and developing critical design decisions and issues associated with the construction phase of the system. This Basis of Design Report will serve as the guidance document for the final detailed design process.

1.3 Purpose

The purpose and intent of completing this report are to advance the process of construction of the replacement groundwater treatment system. The system will be designed to reduce the concentration of target COCs in extracted groundwater to below their respective discharge limits and/or proposed NYSDEC proposed guidance values before discharge. The discharge criteria are shown below:

PARAMETER	DISCHARGE LIMIT	UNIT
Volatiles		
1,1 Dichloroethane	5	µg/L
1,1 Dichloroethene	5	µg/L
Cis-1,2 Dichloroethene	5	µg/L
Trans-1,2 Dichloroethene	5	µg/L
Ethylbenzene	5	µg/L
Methylene Chloride	5	µg/L
Tetrachloroethene	5	µg/L
Toluene	5	µg/L
1,1,1 Trichloroethane	5	µg/L
Trichloroethene	3	µg/L
Vinyl Chloride	2	µg/L
Xylenes	5	µg/L
OTHERS		
pH	5.5 to 8.5	S.U.
1,4-Dioxane*	1	µg/L

Notes:

1. Xylene is to be monitored for each individual component (ortho, meta, para).
2. pH will be monitored continuously during system operation.
3. *The 1,4-D discharge limit is an NYDSEC Proposed Guidance Value, and the Department of Health-Finished Drinking Water adopted maximum contaminant level.
4. S.U. represents standard units.

2.0 EXISTING CONDITIONS

The existing remedy consists of a low permeability capping system, groundwater cutoff wall, groundwater collection system, groundwater treatment system, and surface water control facilities. The subsections below summarize various features at the site. More information on these features is discussed in the Operation, Maintenance, and Monitoring (OM&M) Manual for the existing system (O'Brien & Gere Operations, Inc., 1999).

2.1 Low-Permeability Capping System

The capping system at the site was installed over the surface soils and excavated materials during the construction of the groundwater collection trench, groundwater cutoff wall, and ditches along NYR 20 and Ridge Road. The capping system was installed to prevent direct contact with the subsurface materials and also the infiltration of stormwater into the subsurface.

The capping system consists of a 40-mil linear low-density polyethylene flexible geomembrane overlain by a 24-inch soil barrier protection layer, and a vegetated soil layer on top.

2.2 Groundwater Cutoff Wall

The 20-feet deep groundwater cutoff wall was constructed by backfilling narrow trenches with bentonite slurry to create a barrier that inhibits groundwater flow into the site; thus, eliminating a groundwater transport mechanism.

2.3 Groundwater Collection System

The groundwater collection system consists of a perforated 6-inch diameter high-density polyethylene (HDPE) pipe. The collection system extends 20 to 27 feet below ground surface and contains three (3) cleanouts, eight (8) piezometers, and two (2) standpipes installed along the trench. The trench and the perforated HDPE pipe are sloped and drained by gravity to a pump station located at the northeast corner of the site.

The pump station has two (2) submersible pumps sized at approximately 45 gpm to convey extracted groundwater to a dry vault through a 1.5-inch pipe contained in a 4-inch chlorinated polyvinyl chloride (CPVC). Groundwater is conveyed through this pipe into a distribution manhole at a design flow rate of 15 gpm before it is transferred to the treatment system.

2.4 Groundwater Treatment System

Groundwater is pumped from the groundwater collection trench wet well to a 200-gallon influent flow equalization tank. A sulfuric acid feed system lowers the pH in the influent water to prevent the formation of scale in the air stripper. A float-controlled centrifugal feed pump then conveys the groundwater from the equalization tank to the top of the low-profile air stripper at a design flow rate of 15 gpm. The system collects and treats approximately 800 gallons of water on a daily average. The treated water is discharged by gravity from the air stripper through a 3-inch diameter polyvinyl chloride (PVC) effluent pipe to the roadside drainage ditch south of NYR 20. More information on the existing

treatment and its components can be found in OM&M Manual (O'Brien & Gere Operations, Inc., 1999).

2.5 Surface Water Control Facilities

The site has surface water control facilities constructed to protect the low-permeability capping system from overland flow and minimize stormwater infiltration. The surface water control facilities include drainage swales along NYR 20 and Ridge Road. The ditches adjacent to Ridge Road were lined with asphalt to extend the limits of the cap from the two Site parcels (Fiore Lot 023-01-06.0 and Scalisi Lot 023-02-03.0) to Ridge Road. The asphalt-lined ditches extend from the intersection of Ridge Road and NYR 20 to the southern limit of the groundwater cutoff wall crossing Ridge Road.

2.6 Site Access

The site is improved with an approximately 500-feet long asphalt-paved access road that connects NYR 20 to Ridge Road. Access is controlled by a perimeter fence around the limits of the low permeability cover with a series of vehicle and man gates.

3.0 BASIS OF DESIGN

The basis of design is restricted to the construction or retrofitting of the existing treatment system. Several technical issues were considered during the development of the design. These included the suitability of the existing building for retrofitting the new treatment system, building structure, condition of the building, building aesthetics, weather conditions, site grade, access road, and the pilot study results.

3.1 Existing Building Assessment

The existing treatment system is housed in an insulated 20 by 20-foot building with a 10 by 10-foot overhead or roll-up door access in front and a man door at the side. The preliminary assessment of the condition and functionality of the building and the existing system's component for the intended purpose was based on information obtained during a site visit on January 22, 2022. The structural information for the existing building was obtained from the Completed Record Drawings (O'Brien & Gere Operations, Inc., 1998).

The structural integrity of the building is sound; however, the floor loading, spacing, and components in the building make it unsuitable to support the intended design. The design weight distribution of the concrete floor in the building is limited to 250 pounds per square foot; thus, it cannot support the number of vessels intended to be used for the redesigned system. Secondly, the building has space restrictions for forklift maneuverability; hence, there is not enough clearance or space to accommodate the forklift's turn radius during GAC changeout.

The existing controls and electrical wiring in the building are not suitable and will require updated electrical work to accommodate the new components and balance new loads. The rewiring and modification work will include balancing the loads for the pumps, flow meters, variable frequency drive (VFD), control systems, infrared (IR) heaters, and other equipment required for the operation of the redesigned system. This will require using circuit breakers, switches, and/or fuses intended to constitute the main control and cutoff of the main power supply. All defective breakers/switches, controls, fixtures, and electrical panels will be replaced. It is believed that most or all of the existing panels can be reused and the existing feed panel has the necessary amperage by eliminating the existing inefficient heater with a high-efficiency IR heater and eliminating the air stripper blower/pump load and tank mixer load (already abandoned in place). The layouts of the electric upgrade or modification are shown in Figure E-1.

3.2 Weather Condition

The site has a continental climate characterized by cool summer nights and fair high summer daylight temperatures. Winters are cold and sometimes severe with temperatures ranging from 14 to 36 degrees Fahrenheit. Freezing temperatures during winter can damage the PVC pipes; hence, the piping system will require insulation or protection.

3.3 Site Grade

The site has a gentle slope ranging from 3 to 5 percent toward the south due to the construction of the low permeability capping system. The topsoil layer of the capping

system is covered by grass to mitigate erosion. It should be noted that the paved site for the installation of the conex box (new system) is outside the swale beyond the capping system. (The location to be paved area is indicated in Attachment, Figure C-1.) Previous geotechnical investigations completed prior to the construction of the existing building indicated that the site is competent and suitable for the installation of the redesigned system.

3.4 Pilot Study

Prior to the design of the new groundwater treatment system, a pilot study using three virgin GAC vessels in a Lead/Lag-1/Lag-2 series configuration was completed. The study began on February 8, 2022 and was completed on April 6, 2022. The pilot study aimed at determining the effectiveness of the GAC material in reducing the concentration of 1,4-D and VOCs in extracted groundwater; evaluating the breakthrough of 1,4-D in the GAC system; and acquiring data needed to design a full-scale treatment system.

The pilot study was designed to simulate the full-scale operation of the new treatment system and estimate the amount of GAC required to treat extracted groundwater. The designed parameters used during the pilot study are presented below.

Pilot Study Parameters Used

Parameter	Value
Flow Rate (gpm)	0.091
Flow Rate (cubic centimeter per minute)	343
Cross-Sectional Area (square feet)	0.087
Superficial Velocity (gpm per square feet)	1.04
Weight of GAC in Column (pounds)	9.07
GAC Column Volume (gallons)	2.40
Contact Time per Column (minutes)	26.36
Contact Time for all Columns (minutes)	79.08
Backwash Flow Rate (gpm)	0.55
Volume per Backwash (gallons)	16.40

During the pilot study, the treatment media successfully removed COCs from extracted groundwater. The GAC material effectively removed 1,4-D to concentrations below the detection limit of 0.2 μg/L. Except for the influent, all the GAC-filled columns exhibited a gradual breakthrough of 1,4-D throughout the study and a complete breakthrough was observed in the first (lead) vessel after 44 days. The pilot-scale GAC usage rate of 1.57 pounds per 1,000 gallons of treated water was observed during the study. The estimated empty bed contact time during the pilot study was 26.4 minutes compared to the predicted 20 minutes. It is expected that the general increase in the empty bed contact time will improve the removal of 1,4-D by GAC due to the longer contact time between the GAC material and the impacted groundwater. The pilot result was used to design the new treatment system (discussed in Section 4).

4.0 GROUNDWATER TREATMENT SYSTEM

This section discusses various components of the redesigned treatment system and the design calculations obtained from the pilot study.

4.1 System Layout

The redesigned groundwater treatment system is a carbon filtration system contained in a standard 20-feet long, 8-feet wide, and 8.5-feet high prefabricated conex box (Attachment 1; Figures P-2, P-3, and M-1). The conex box will be placed on a newly graded or asphalt-paved pad on the eastern side of the existing building. It will be placed adjacent to the existing paved access road and located appropriately 4-6 feet east of the existing building. The layout of the paved area is shown in Attachment 1; Figure C-1 and the profile of the pavement is shown in Attachment 1; Figure D-1. The conex box will be linked to the existing building using an insulated 6-inch piping system with a 2-inch pipe inside for containment.

4.2 Existing Building

The existing building containing the old treatment system will be repurposed to contain three tanks (T-100, T-201, and T-202), two pumps, two flowmeters, a multi-bag filter housing equipped with 100-micron filter bags, a pipe network with valves, and a control system.

The Equalization Tank T-100 is an 850-gallon vertical tank that will store influent from the existing wet well sump. The other two equalization tanks (T-201 and T-202) are 500-gallon Norwesco vertical tanks that will be used as a reservoir to store filtered and treated groundwater for beneficial reuse from the new system discharge prior to overflowing into the gravity outfall line to the outfall located south of NYR 20. The system in the existing building will have two Goulds pumps controlled by single- to three-phase VFDs to maintain the design flow and backwash flow as needed. The filter housing will have four 100-micron bag filters to remove suspended materials in the effluent before it is transferred into the GAC vessels for treatment.

The existing building will be equipped with control systems, a pump VFD control panel, a circuit breaker panel, and an exhaust fan. The control systems will consist of a supervisory control and data acquisition system and programmable logic controllers (PLC) to monitor, control, and coordinate all process and auxiliary systems including the flowmeters, pumps, water level indicators, temperature regulators, cameras, VFDs, and uptime or downtime alarms. The PLC will be provided with a surge protector and a backup battery programmed to meet the treatment requirements for the design loadings with limited operator adjustment. The PLC and other components of the treatment system will be accessed remotely using a telemetry system.

4.3 New Treatment System Components

The conex box or container has four 1,000 pounds American Society of Mechanical Engineers non-code activated carbon adsorbers fabricated of pressure vessel quality carbon steel equipped with high solids epoxy lining. The four carbon adsorbers will be prefilled with 1,000 pounds of virgin coconut shell carbon (Calgon® OLC 12x40) or

engineer-approved equivalent for treatment. (Calgon® OLC 12x40 was the same GAC material used during the pilot study.)

The carbon adsorbers will be labeled CA-101 through CA-104 and will be interconnected using schedule 40 PVC pipes and hoses, as shown in Attachment 1 (Figures P-2 and P-3). The connection will have camlock couplings, pressure gauges, true union ball valves, air release valves, and butterfly valves. The process pipe network and valve arrangements will enable the system to operate in all configurations needed. The pipe network will also allow backwashing of any individual carbon adsorbers when it is in the lead position and there is an unacceptable pressure drop due to the accumulation of suspended solids in the carbon bed. The adsorber requiring backwash will be isolated from the system process flow during the process. It will also allow for backflushing of fines with treated water upon initial operation of the system and after carbon changeouts.

The conex box will be equipped with two light fixtures, an exhaust fan, and two Schwank IR heaters (with a third option if needed). The heaters will automatically warm the conex box during freezing temperatures to prevent damage to the piping and other components. The conex box will be accessed from the southern side and rear. The south side will have a 36-inch main door in the middle for routine access. The rear will have double-locking standard shipping container doors. The system will have two roof hatches for easy access to the four carbon absorbers during GAC media replacement (changeouts) and filling.

The conex piping will be linked to the existing building via four 6-inch PVC pipes wrapped in insulation for routing the 2-inch PVC process piping while providing containment. The 6-inch piping will be connected through the conex wall with flanges or bulkhead fitting (Attachment 1; Figure M-1). It will be sloped to and extended inside the curb of the existing building to direct any leaks to the sump in the building. Four 2-inch pipes for the influent from the existing system, backwash influent from the new system, backwash feed from the existing system, and the effluent (discharge) from the new system will be routed through the 6-inch containment pipe sleeves. A combination of an air gap and exterior insulation will prevent the pipes from freezing in the winter months.

4.4 System Operation

Groundwater collected in the trench wet well will be pumped through the existing dry vault into Equalization Tank T-100 by two sump pumps, with one being the primary and the other for backup. The primary pump will run most of the time and the backup pump will be exercised by the PLC occasionally to prevent seizing. The sump pump will be actuated by new motor starters from the PLC signals. A VFD-controlled centrifugal feed pump will transport the extracted groundwater from Equalization Tank T-100 through the 4-inch bag filter housing and into the lead GAC vessel while maintaining a constant flow as indicated on the feed flow meter input to the PLC. Extracted groundwater will be transported through a flowmeter at a designed flow rate (10 gpm) before it is filtered for treatment in the conex. The VFD will ensure a constant rate of flow as the bag filters clog between changeouts causing variable backpressures.

The GAC vessels in the conex will be arranged by valve and piping manifolds in a Lead/Lag-1/Lag-2 configuration in series (as shown in Attachment 1; Figure P-3). A spare fourth vessel has been provided to allow for carbon changeout based on vendor

availability reducing rush scheduling costs. Based on the results of the pilot study, the spent GAC in the lead vessel will be replaced after 253-508 days of routine operations based on worst-case average flow estimates. The initial operations with the lead carbon vessel containing virgin carbon represent the longest duration. Following the first changeout of carbon in the lead vessel, the changeout frequency will be a shorter duration. The actual changeout frequency will be based on sample analytical results that show at least a 30 percent breakthrough of 1,4-D through the lead vessel during routine monitoring of the system. The Lead/Lag-1/Lag-2/Spare series configuration will be alternated in the following manner:

- The spent lead vessel will be changed out and become the new spare vessel.
- The Lag-1 vessel will become the new lead vessel.
- The Lag-2 vessel will become the new Lag-1 vessel.
- The spare vessel will become the new Lag-2 vessel (Polish).

This sequence of vessel alternation will continue for the duration of the system operation.

The treated groundwater from the GAC vessels will be discharged into the combined discharge tanks T-201 and T-202 reservoir at the feed flow rate. The tanks will fill and overflow by gravity through a discharge flow meter/totalizer to the existing outfall pipe from the building. The outfall discharges into the ditch south of NYR 20 via a 3-inch diameter PVC effluent pipe from the building to the existing discharge manhole and via an 8-inch HDPE pipe to the outfall structure. The beneficial reuse of the treated water in the discharge tanks is used to provide service water in the building for bag filter housing washdowns; water for wetting new carbon in the vessel following the carbon changeout; flushing off fines from the wetted carbon after initially soaking it for 24 hours; and for backwashing the vessels if the backpressure develops on the lead vessel.

4.5 Full-Scale Operation Design

The full-scale operation design parameters for the new groundwater treatment system based on the results of the pilot study are presented below.

Groundwater Treatment System Full-Scale Design Parameters

Parameter	Value
Total Flow rate (gallons per minute)	10
Vessel Diameter (feet)	3.5
Number of Vessels (additional vessel will be added as spare)	3.0
GAC Weight per vessel (pounds)	1,000
GAC Average Density (pounds per cubic feet)	28.38
Backwash Rate (gallons per minute per square feet)	6.25
Backwash Duration (minutes)	30
Vessel Superficial Velocity (gallons per minute per square feet)	1.04
GAC Vessel Volume (gallons)	264
Contact Time per Vessel (minutes)	26.36
Contact Time for all Vessels (minutes)	79.08

Parameter	Value
Backwash Flow (gallons per minute)	60
Volume per Backwash (gallons)	1,804

Based on the results of the pilot study, the GAC material used is expected to have a consumption of approximately 1.57 pounds of GAC per 1,000 gallons of water treated. The initial system, which consists of virgin carbon, is expected to treat approximately 637,000 gallons of water during the full-scale operation at an estimated GAC changeout between 381-508 days at the maximum average discharge rate discussed in the pilot study. This treatment capacity will be slightly reduced to approximately 253 days during subsequent changeouts due to the initial loading of 1,4-D on the new lead vessel during initial/routine operations. It should be noted that the actual GAC changeout will be based on 30 percent or more breakthroughs of 1,4-D across the lead vessel observed in the monitoring analytical data collected as part of the routine O&M of the system.

4.6 Contact Time

The empty bed contact time is estimated as the volume of the empty bed divided by the system's designed flow rate. It is a measure of the time water is in contact with the GAC material, assuming all groundwater filtered for sediment and particulate removal passes through the GAC material at the same velocity. The estimated empty bed contact time will be more than 27 minutes, as compared to the 20 minutes predicted. It is expected that an increase in the empty bed contact time will improve the removal of 1,4-D by GAC due to the longer contact time.

5.0 DELIVERABLES

After the construction of the groundwater treatment system is completed, a Construction Completion Report documenting all the activities and work performed will be prepared and subsequently submitted to the NYSDEC for approval.

A detailed Groundwater Treatment OM&M Manual will also be prepared after the completion of the installation and startup of the groundwater treatment system.

6.0 REFERENCES

O'Brien & Gere Operations, Inc., 1998. Record Drawings for the Abandoned Solvent Center Site at Pompey, New York, Site Code #734035, November.

O'Brien & Gere Operations, Inc., 1999. Operation, Maintenance, and Monitoring Manual for the Abandoned Solvent Center Site at Pompey, New York, Site Code #734035, January.

Tetra Tech, Inc., 2022. Pilot Study Report at the Abandoned Solvent Center Site in Pompey, New York, May.

ATTACHMENTS

ATTACHMENT 1
(DESIGN DRAWINGS)

0 4366.1835 8732.367 Feet

THE ABANDONED SOLVENT CENTER SITE NYDEC #734035

GROUND WATER TREATMENT SYSTEM REPLACMENT DESIGN

INDEX TO DRAWINGS

GENERAL ELECTRIC COMPANY AND
BRISTOL - MYERS SQUIBB COMPANY
POMPEY, NEW YORK
SEPTEMBER 2022

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:
STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER
10/19/2022
PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

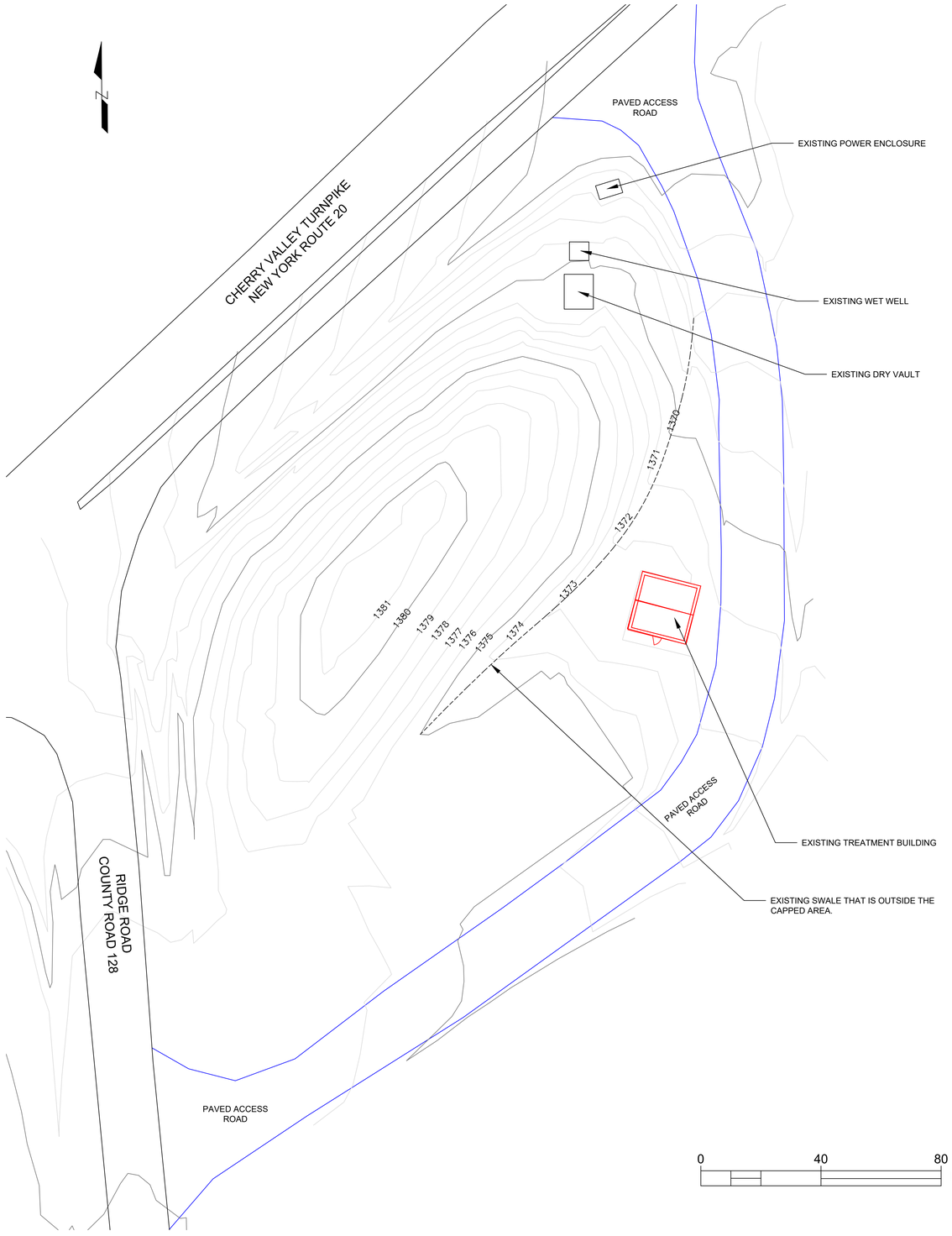
DATE	REVISION	APRVD.

TITLE: GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN
GENERAL DRAWING INDEX

LOCATION: THE ABANDONED SOLVENT CENTER SITE
(NYSDEC NO. 734035)
POMPEY, NEW YORK

TETRA TECH

PE#	089100	DRAWING
COA#	0018434	
PROJECT#	117C-GE-00048	TS
DATE	9-23-2022	



PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:

STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER

10/19/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

TITLE:
GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN
EXISTING CONDITIONS PLAN

LOCATION:
THE ABANDONED SOLVENT CENTER SITE
(NYSDEC NO. 734035)
POMPEY, NEW YORK

TETRA TECH

PE#	089100	DRAWING
COA#	0018434	
PROJECT#	117C-GE-00048	G-1
DATE	9-23-2022	

N

CHERRY VALLEY TURNPIKE
NEW YORK ROUTE 20

PAVED ACCESS ROAD

RIDGE ROAD
COUNTY ROAD 128

PAVED ACCESS ROAD

PAVED ACCESS ROAD

1370
1371
1372
1373
1374
1375
1376
1377
1378
1379
1380
1381

0 40 80 Feet

NEW GRADED ASPHALT PAVED AREA
APPROXIMATELY 1,051 SQUARE FEET

PREFABRICATED CONEX TREATMENT SYSTEM (BY OTHERS)

EXISTING TREATMENT BUILDING

EXISTING SWALE THAT IS OUTSIDE THE CAPPED AREA.

0 10 20 Feet

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:

STATE OF NEW YORK
JAMES RUSSELL DICKSON
089100
LICENSED PROFESSIONAL ENGINEER

10/19/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

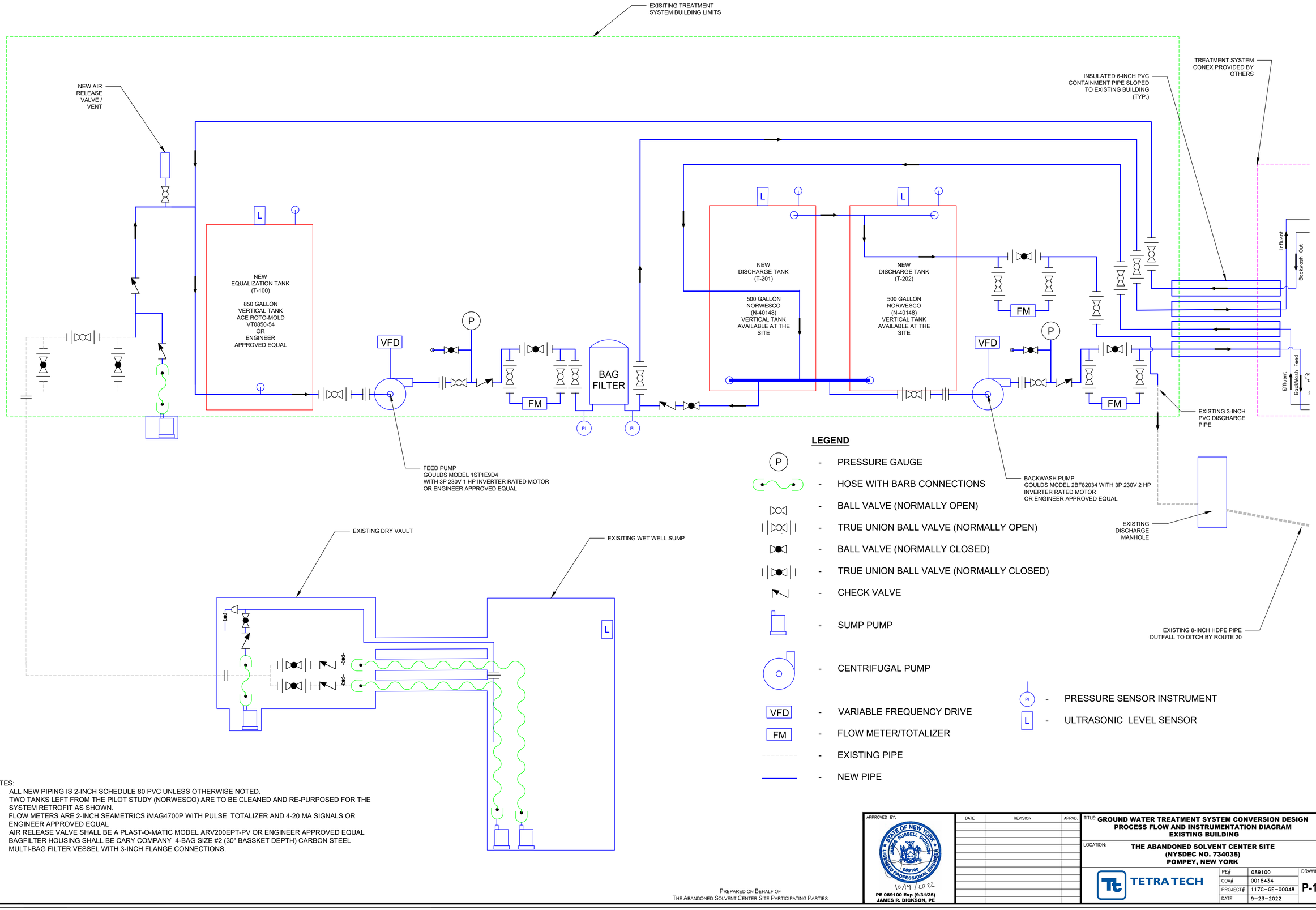
TITLE:
GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN SYSTEM RETROFIT LAYOUT

LOCATION:
THE ABANDONED SOLVENT CENTER SITE (NYSDEC NO. 734035) POMPEY, NEW YORK

TETRA TECH

PE#	089100
COA#	0018434
PROJECT#	117C-GE-00048
DATE	9-23-2022

DRAWING
C-1



LEGEND

- P - PRESSURE GAUGE
- HOSE WITH BARB CONNECTIONS
- BALL VALVE (NORMALLY OPEN)
- TRUE UNION BALL VALVE (NORMALLY OPEN)
- BALL VALVE (NORMALLY CLOSED)
- TRUE UNION BALL VALVE (NORMALLY CLOSED)
- CHECK VALVE
- SUMP PUMP
- CENTRIFUGAL PUMP
- VFD - VARIABLE FREQUENCY DRIVE
- FM - FLOW METER/TOTALIZER
- EXISTING PIPE
- NEW PIPE
- PI - PRESSURE SENSOR INSTRUMENT
- L - ULTRASONIC LEVEL SENSOR

NOTES:
1. ALL NEW PIPING IS 2-INCH SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.
2. TWO TANKS LEFT FROM THE PILOT STUDY (NORWESCO) ARE TO BE CLEANED AND RE-PURPOSED FOR THE SYSTEM RETROFIT AS SHOWN.
3. FLOW METERS ARE 2-INCH SEAMETRICS iMAG4700P WITH PULSE TOTALIZER AND 4-20 MA SIGNALS OR ENGINEER APPROVED EQUAL
4. AIR RELEASE VALVE SHALL BE A PLAST-O-MATIC MODEL ARV200EPT-PV OR ENGINEER APPROVED EQUAL
5. BAGFILTER HOUSING SHALL BE CARY COMPANY 4-BAG SIZE #2 (30" BASSKET DEPTH) CARBON STEEL MULTI-BAG FILTER VESSEL WITH 3-INCH FLANGE CONNECTIONS.

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:

STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER

10/19/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

TITLE: **GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN**
PROCESS FLOW AND INSTRUMENTATION DIAGRAM
EXISTING BUILDING

LOCATION: **THE ABANDONED SOLVENT CENTER SITE**
(NYSDEC NO. 734035)
POMPEY, NEW YORK

TETRA TECH

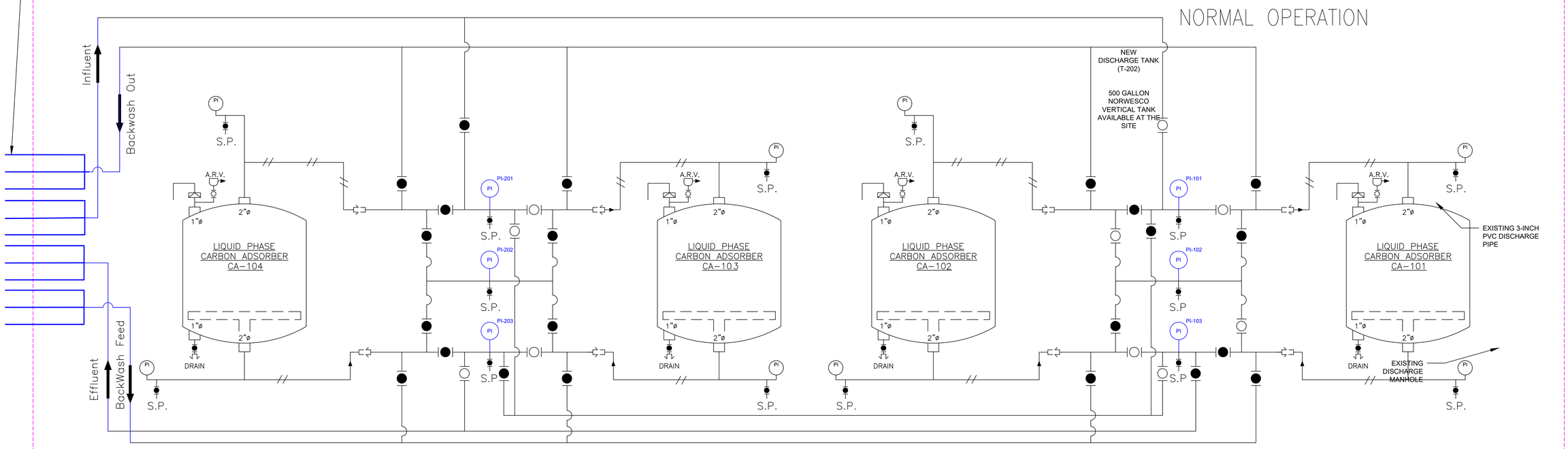
PE#	089100
COA#	0018434
PROJECT#	117C-GE-00048
DATE	9-23-2022

DRAWING **P-1**

INITIAL OPERATIONS
VALVE LINEUP SHOWN

INSULATED 6-INCH PVC CONTAINMENT PIPE SLOPED TO EXISTING BUILDING (TYP.)

TREATMENT SYSTEM CONEX PROVIDED BY OTHERS



LEGEND

- PROCESS PIPING
- BALL VALVE (OPEN)
- BALL VALVE (CLOSE)
- A.R.V. — AIR RELEASE VALVE
- RUPTURE DISK
- CAM LOCK COUPLING
- PI — PRESSURE GAGE
- FLOW DIRECTION
- PIPE CROSS OVER
- HOSE
- S.P. = SAMPLE PORT

Source: Groundwater Treatment Technology Inc.

PI - PRESSURE SENSOR INSTRUMENT

NOTES:
1. THREE LGAC UNITS WILL BE IN SERVICE AND ONE TIME WITH AN INSTALLED SPARE TO ALLOW FOR CONTINUOUS OPERATIONS WHEN A CHANGE OUT IS NEEDED.
2. THE MANIFOLD AND VALVES ALLOW FOR VESSELS TO BE CONFIGURED AS ANY VESSEL LEAD, LAG1 AND LAG2 COMBINATION.
3. THE SHIFT WOULD BE LAG1 TO LEAD, LAG2 TO LAG1, SPARE TO LAG2 (POLISH), SPENT FOR CHANGE OUT AND MOVED TO SPARE POSITION.
4. ALL PIPING IS 2-INCH SCHEDULE 80 PVC, EXCEPT SAMPLE PORTS AND GAUGES, UNLESS OTHERWISE NOTED.

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:
STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER
10/19/2022
PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

TITLE: **GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN PROCESS FLOW AND INSTRUMENTAION DIAGRAM NEW CONEX**

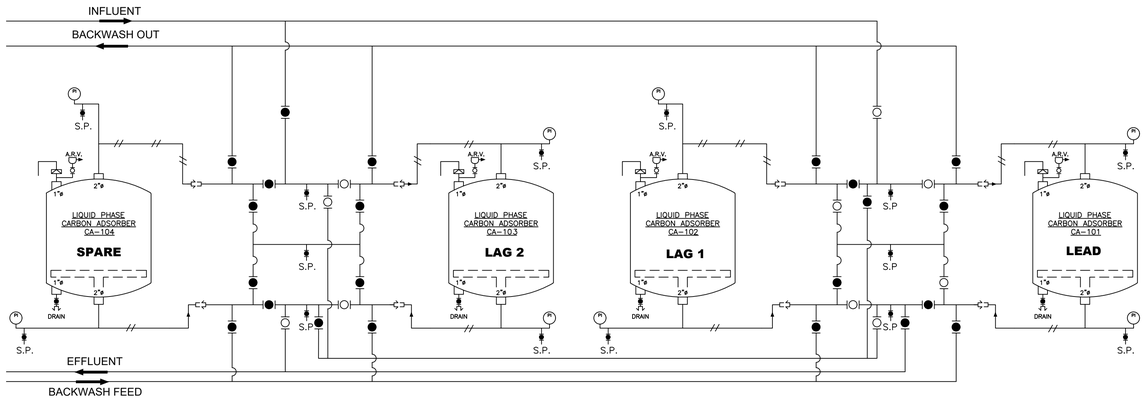
LOCATION: **THE ABANDONED SOLVENT CENTER SITE (NYSDEC NO. 734035) POMPEY, NEW YORK**

TETRA TECH

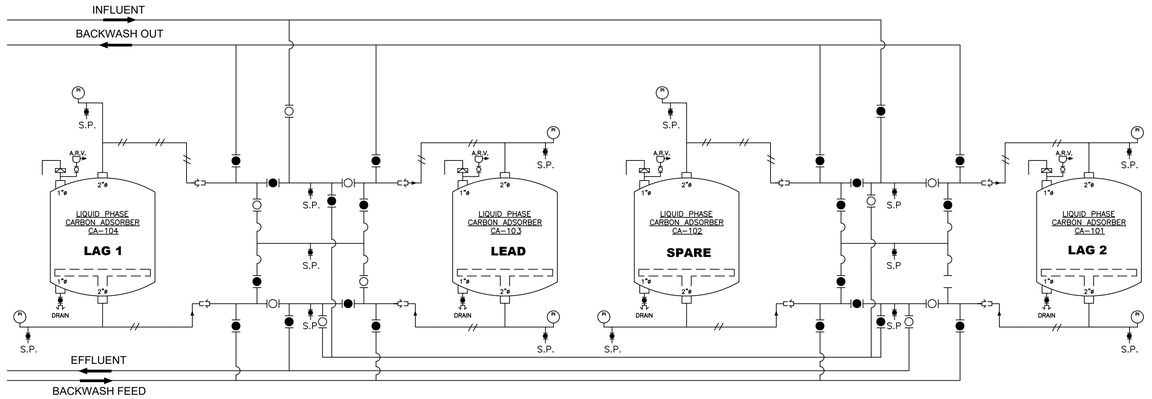
PE#	089100
COA#	0018434
PROJECT#	117C-GE-00048
DATE	9-23-2022

DRAWING **P-2**

INITIAL OPERATIONS VALVE LINEUP SHOWN



THIRD OPERATIONS VALVE LINEUP SHOWN



SECOND OPERATIONS VALVE LINEUP SHOWN

FORTH OPERATIONS VALVE LINEUP SHOWN

LEGEND

PROCESS PIPING	A.R.V. AIR RELEASE VALVE	FLOW DIRECTION	
BALL VALVE (OPEN)	RUPTURE DISK	PIPE CROSS OVER	
BALL VALVE (CLOSE)	CAM LOCK COUPLING	HOSE	
	PRESSURE GAGE	S.P. = SAMPLE PORT	

NOTES:

1. THREE LGAC UNITS WILL BE IN SERVICE AND ONE TIME WITH AN INSTALLED SPARE TO ALLOW FOR CONTINUOUS OPERATIONS WHEN A CHANGE OUT IS NEEDED.
2. THE MANIFOLD AND VALVES ALLOW FOR VESSELS TO BE CONFIGURED AS ANY VESSEL LEAD, LAG1 AND LAG2 COMBINATION.
3. THE SHIFT WOULD BE LAG1 TO LEAD, LAG2 TO LAG1, SPARE TO LAG2 (POLISH), SPENT FOR CHANGE OUT AND MOVED TO SPARE POSITION. (REPEAT)
4. ALL PIPING IS 2-INCH SCHEDULE 80 PVC, EXCEPT SAMPLE PORTS AND GAUGES, UNLESS OTHERWISE NOTED.

Source: Groundwater Treatment Technology Inc.

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:

STATE OF NEW YORK · JAMES RUSSELL DICKSON · LICENSED PROFESSIONAL ENGINEER · 089100

10/19/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

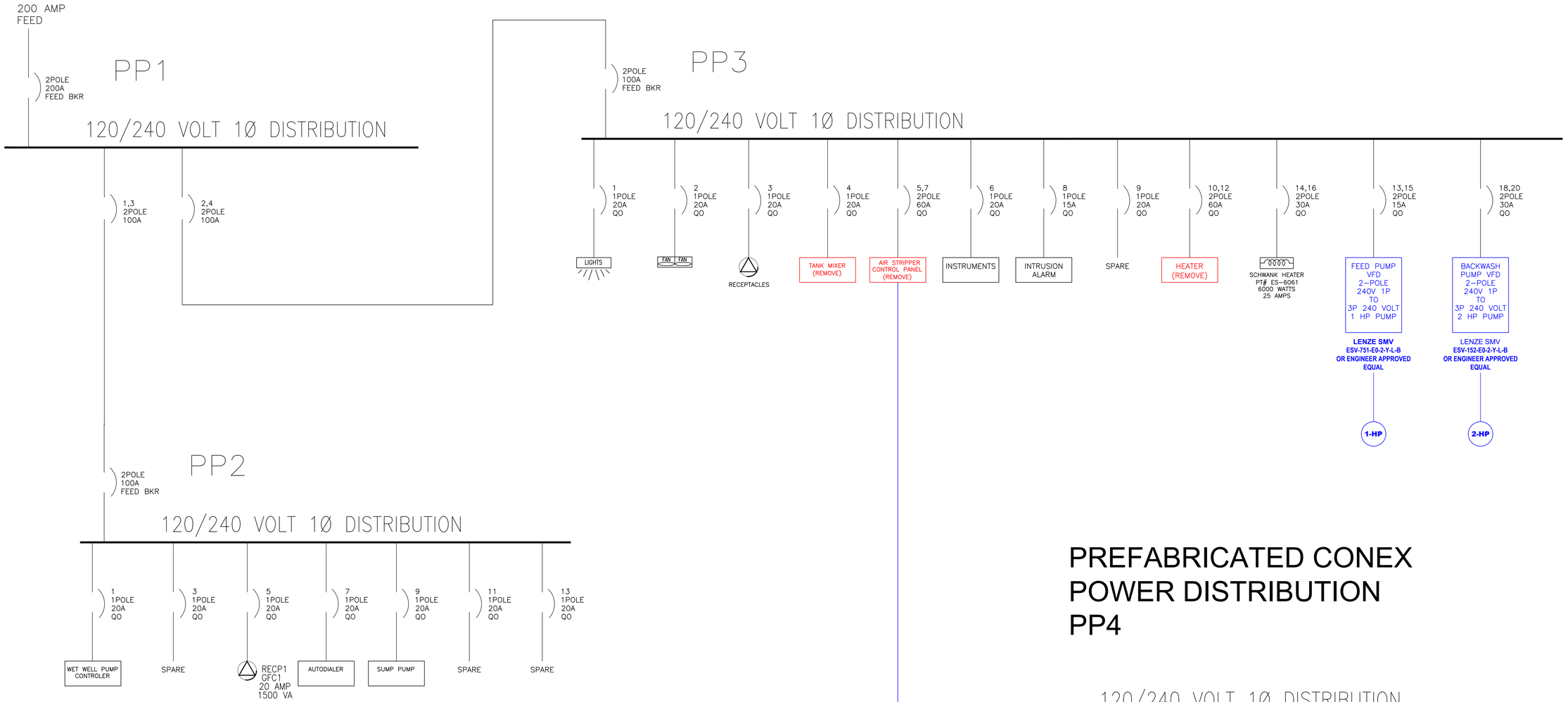
TITLE: **GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN PROCESS FLOW DIAGRAM - VALVE CONFIGURATION OVER TIME NEW CONEX**

LOCATION: **THE ABANDONED SOLVENT CENTER SITE (NYSDEC NO. 734035) POMPEY, NEW YORK**

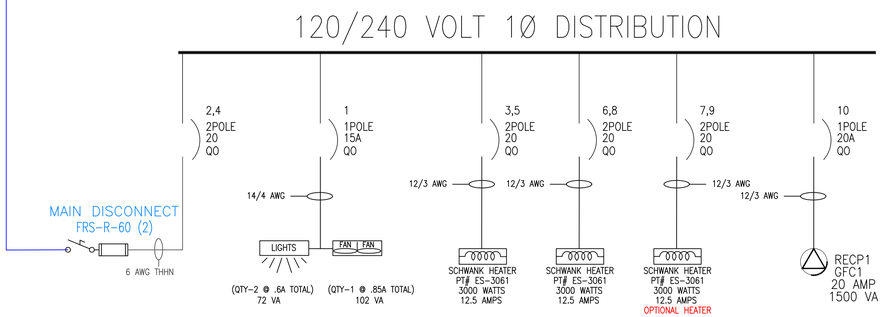
TETRA TECH

PE#	089100
COA#	0018434
PROJECT#	117C-GE-00048
DATE	9-23-2022

DRAWING **P-3**



PREFABRICATED CONEX POWER DISTRIBUTION PP4



Source: Groundwater Treatment Technology Inc.

LEGEND

SUMP PUMP	-	EXISTING EQUIPMENT
TANK MIXER (REMOVE)	-	REMOVE EQUIPMENT
FEED PUMP VFD 2-POLE 240V 1P TO 3P 240 VOLT 1 HP PUMP **LENZE SMV ESV-751-E0-2-Y-L-B OR ENGINEER APPROVED EQUAL**	-	NEW EQUIPMENT
1-HP	-	MOTOR (HP)

NOTE: REDISTRIBUTE THE LOADS IN THE EXISTING PANELS AS NECESSARY TO BALANCE THE LOADS EVENLY BETWEEN THE POLES. ALL WIRING MUST FOLLOW LOCAL CODE AND NATIONAL ELECTRICAL CODE.

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:

STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER

10/19/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

TITLE: **GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN ELECTRICAL ONE LINE DIAGRAM**

LOCATION: **THE ABANDONED SOLVENT CENTER SITE (NYSDEC NO. 734035) POMPEY, NEW YORK**

TETRA TECH

PE#	089100	DRAWING
COA#	0018434	E-1
PROJECT#	117C-GE-00048	
DATE	9-23-2022	

PLOTTED:

PLC-GWCS-CTP

MS-M-SDP-1
- START/STOP
- RUNNING
- FAULT

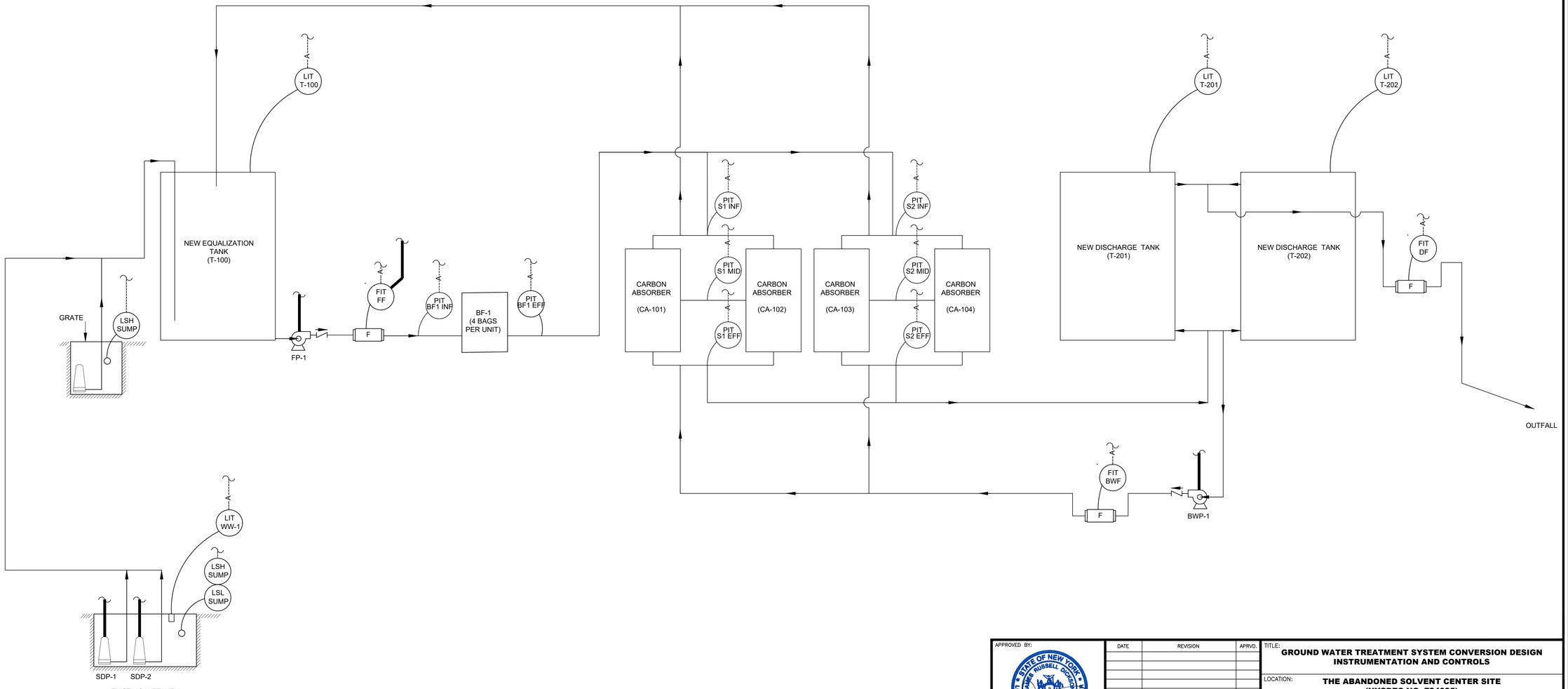
MS-M-SDP-2
- START/STOP
- RUNNING
- FAULT

VFD-M-FP-1
- START/STOP
- RUNNING
- VFD FAULT
- SPEED COMMAND
- SPEED FEEDBACK

VFD-M-BWP-1
- START/STOP
- RUNNING
- VFD FAULT
- SPEED COMMAND
- SPEED FEEDBACK

- WET WELL WW-1 LOW LEVEL
- WET WELL WW-1 HIGH LEVEL
- WET WELL WW-1 LEVEL
- EQ TANK T-100 LEVEL
- BUILDING SUMP HIGH LEVEL
- FEED FLOW (FF)
- FEED FLOW PULSE SIGNAL
- BF PRESSURE IN
- BF PRESSURE OUT
- CA SKID 1 PRESSURE IN
- CA SKID 1 PRESSURE MID
- CA SKID 1 PRESSURE OUT
- CA SKID 2 PRESSURE IN
- CA SKID 2 PRESSURE MID
- CA SKID 2 PRESSURE OUT
- DISCHARGE TANK T-201 LEVEL
- DISCHARGE TANK T-202 LEVEL
- DISCHARGE FLOW (DF)
- DISCHARGE PULSE SIGNAL
- BACKWASH FLOW (BW)
- BACKWASH PULSE SIGNAL
- EXISTING BUILDING TEMPERATURE:
- CONEX TEMPERATURE

LEGEND
- DIGITAL INPUT
- DIGITAL OUTPUT
- ANALOG INPUT
- ANALOG OUTPUT



PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:

STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER

10/19/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

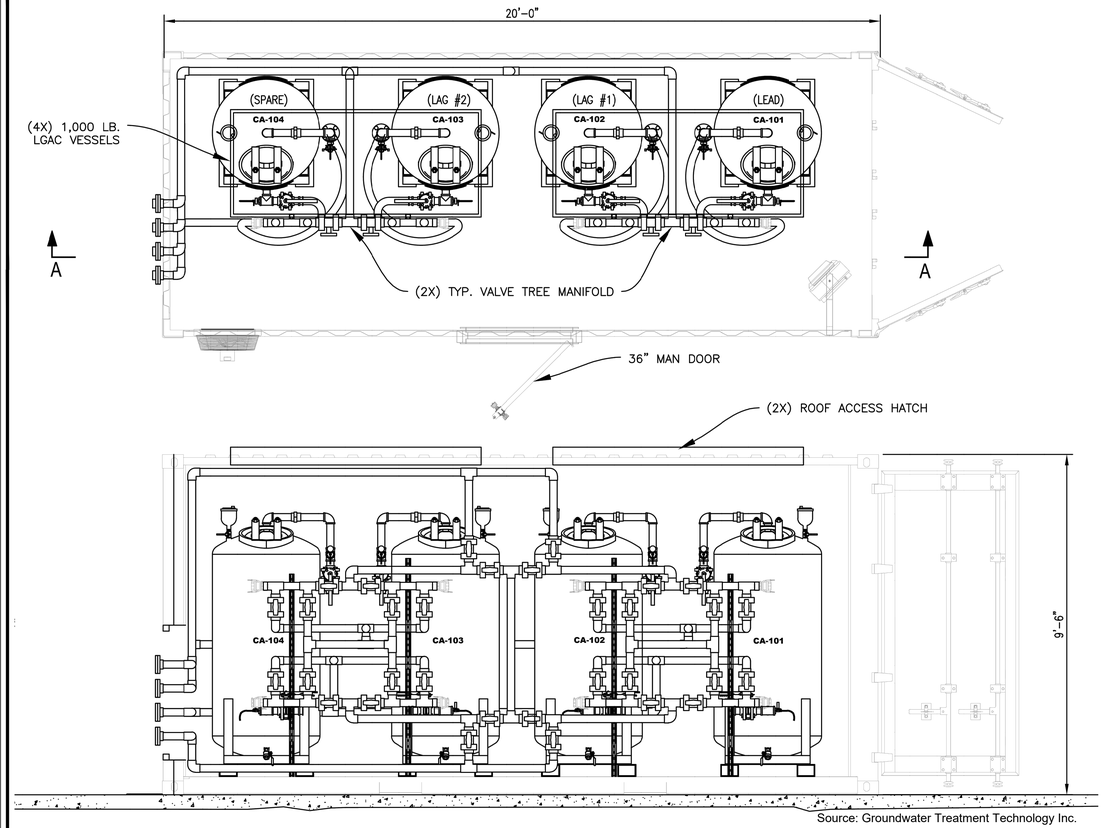
TITLE: **GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN INSTRUMENTATION AND CONTROLS**

LOCATION: **THE ABANDONED SOLVENT CENTER SITE (NYSDEC NO. 734035) POMPEY, NEW YORK**

TETRA TECH

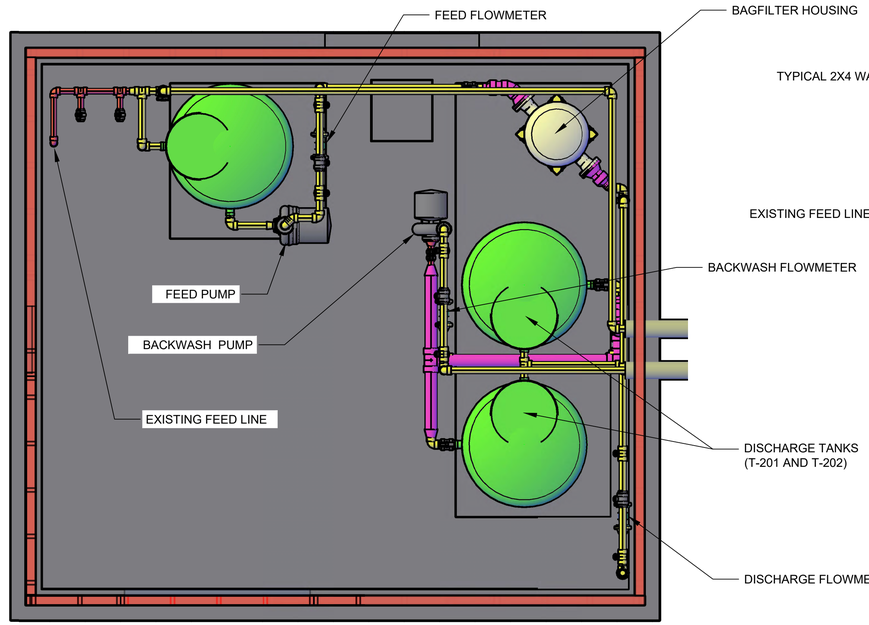
PE#	089100
COA#	0018434
PROJECT#	117C-GE-00048
DATE	9-23-2022

DRAWING **IC-1**

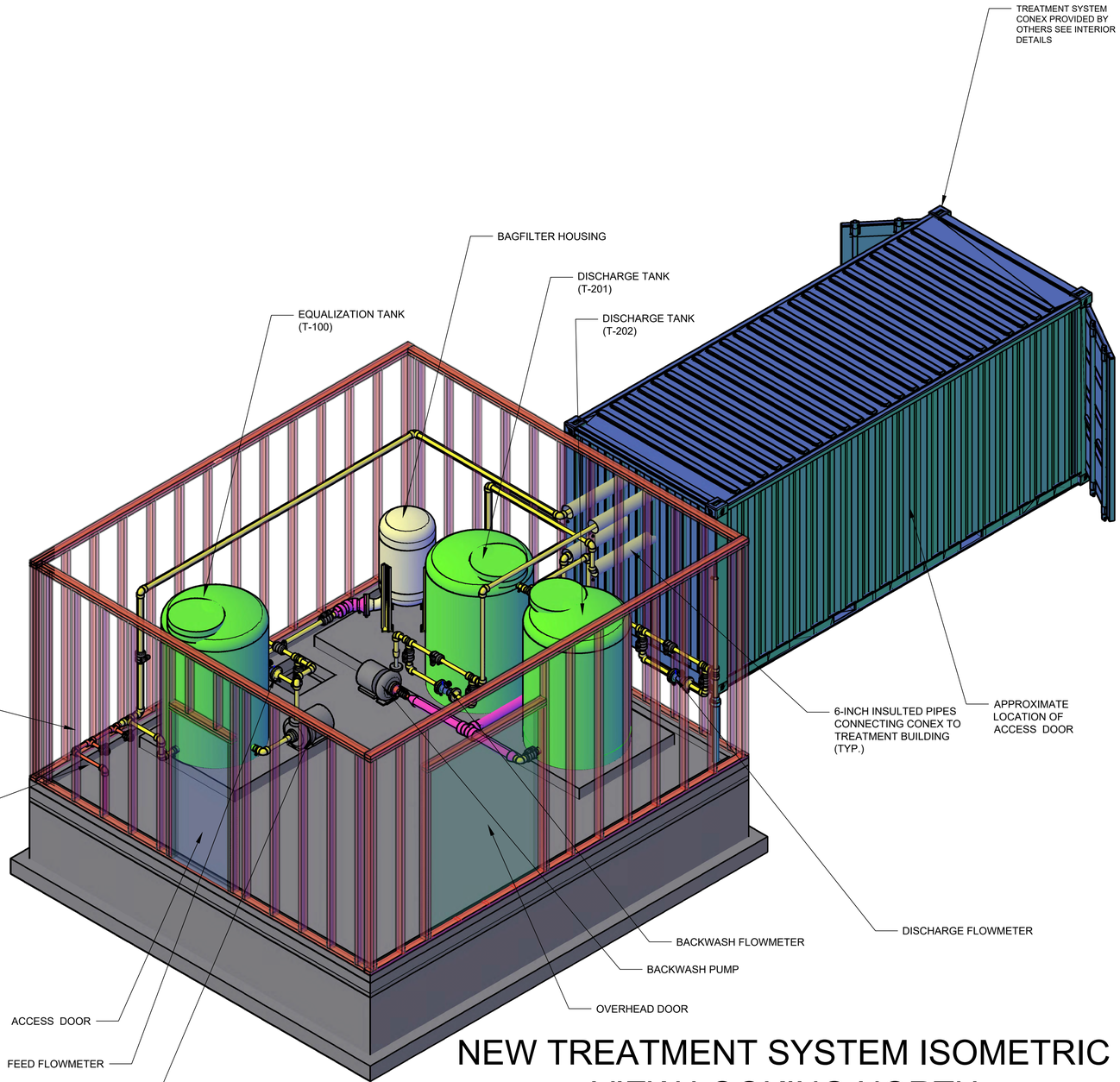


Source: Groundwater Treatment Technology Inc.

CONEX INTERIOR DETAILS



EXISTING BUILDING PLAN VIEW



NEW TREATMENT SYSTEM ISOMETRIC VIEW LOOKING NORTH

Prepared on Behalf of
The Abandoned Solvent Center Site Participating Parties

APPROVED BY:

STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER

10/19/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

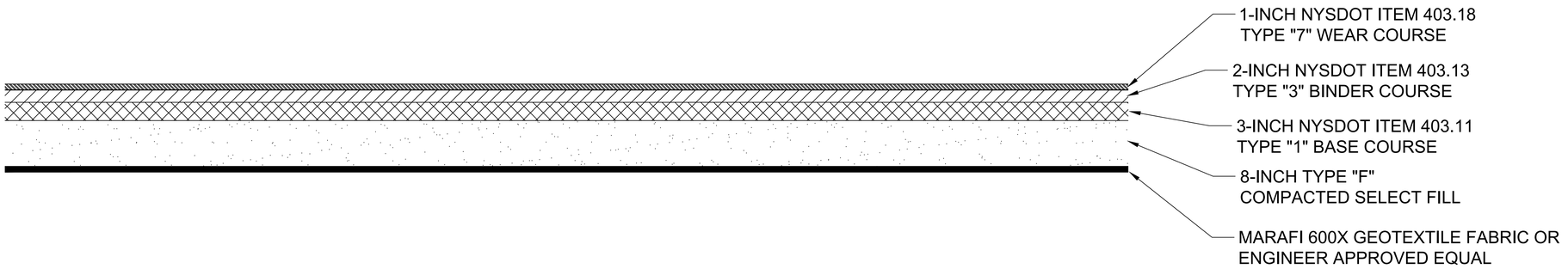
TITLE:
GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN
MECHANICAL LAYOUT AND ISO VIEWS

LOCATION:
THE ABANDONED SOLVENT CENTER SITE
(NYSDEC NO. 734035)
POMPEY, NEW YORK

TETRA TECH

PE#	089100
COA#	0018434
PROJECT#	117C-GE-00048
DATE	9-23-2022

DRAWING **M-1**



NEW PAVEMENT DETAILS

NOT TO SCALE

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

APPROVED BY:

STATE OF NEW YORK · JAMES RUSSELL DICKSON · 089100 · LICENSED PROFESSIONAL ENGINEER

10/14/2022

PE 089100 Exp (9/31/25)
JAMES R. DICKSON, PE

DATE	REVISION	APRVD.

TITLE: **GROUND WATER TREATMENT SYSTEM CONVERSION DESIGN**
MISCELLANEOUS DETAILS

LOCATION: **THE ABANDONED SOLVENT CENTER SITE**
(NYSDEC NO. 734035)
POMPEY, NEW YORK

TETRA TECH

PE#	089100	DRAWING
COA#	0018434	
PROJECT#	117C-GE-00048	D-1
DATE	9-23-2022	

FILENAME

ATTACHMENT 2
(MAJOR EQUIPMENT CUT SHEETS)

BACKWASH PUMP

BACKWASH PUMP

Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

Technical Data

2BF82034

Operating data

Pump type		SingleStage Pumps	Fluid		Water
No. of pumps/ Reserve		1 / 0	Operating temperature t A	°F	39.2
Nominal flow	US g.p.m.	74.98	pH-value at t A		7
Nominal head	ft	54.99	Density at t A	lb/ft³	62.4
Static head	ft	0	Kin. viscosity at t A	ft²/s	1.689E-5
Inlet pressure	psi	0	Vapor pressure at t A	psi	14.5
Environmental temperature	°F	68	Solids		0
Available system NPSH	ft	0	Altitude	ft	0

Pump data

Make			Goulds Water Technology		Nominal	US g.p.m.	79.6 (79.6)
Speed		rpm	3600	Flow	Max-	US g.p.m.	101.2
No. of stages			1		Min-	US g.p.m.	
Max. casing pressure		psi			Nominal	ft	62
Max. working pressure		psi	34.2	Head	at Qmax	ft	42.2
Head H(Q=0)		ft	79		at Qmin	ft	78.9
Weight		lb	101	Shaft power		hp	1.9 (1.9)
	Max.	inch	5	Max. shaft power		hp	2.2
Impeller R	designed	inch	4 3/8	Efficiency		%	66.34
	Min.	inch	2 7/8	NPSH 3%		ft	22.1

Shaft Seal

Make	John Crane
Type of Shaft Seal	TYPE-6
Seal Material Code	Carbon/Ceramic/Buna
Rotary	Carbon
Stationary	Ceramic
Elastomers	BUNA
Metal Parts	316 SS

Motor data

Manufacturer	Bluffton	Electric voltage	460 V	Speed	3500 rpm
Specific design	3ph TEPE	Electric current	2.6 A	Frame size	56J
Type	208-230/460V 56J (E08C32E5EB3G)	Rated power	2 hp	Insulation class	B
		Degree of protection	IP 55	Colour	RAL 5010

Remarks:

Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

2BF82034

PumpMaterials

100 - Casting	Cast iron ASTM A48 CL 20
101 - Impeller	Bronze ASTM B584, C87500 Lead-Free
108 - Adapter	Cast iron ASTM A48 CL 20
123 - Water deflector	Rubber or Micarta®
240 - Motor Support	Steel
240 - Rubber Channel	Rubber
304 - Impeller nut*	Stainless steel
351 - Gasket-casing	Composite
358 - Pipe plug 0.25 inch vent and drain	Brass
370 - Hex head cap screw adapter to case	Zinc-Plated Steel
371 - Hex head cap screw adapter to motor	Zinc-Plated Steel
383 - Mechanical Seal	Refer Mechanical Seals
408 - Prime plug - priming 0.25 inch NPT	Brass

Remarks:

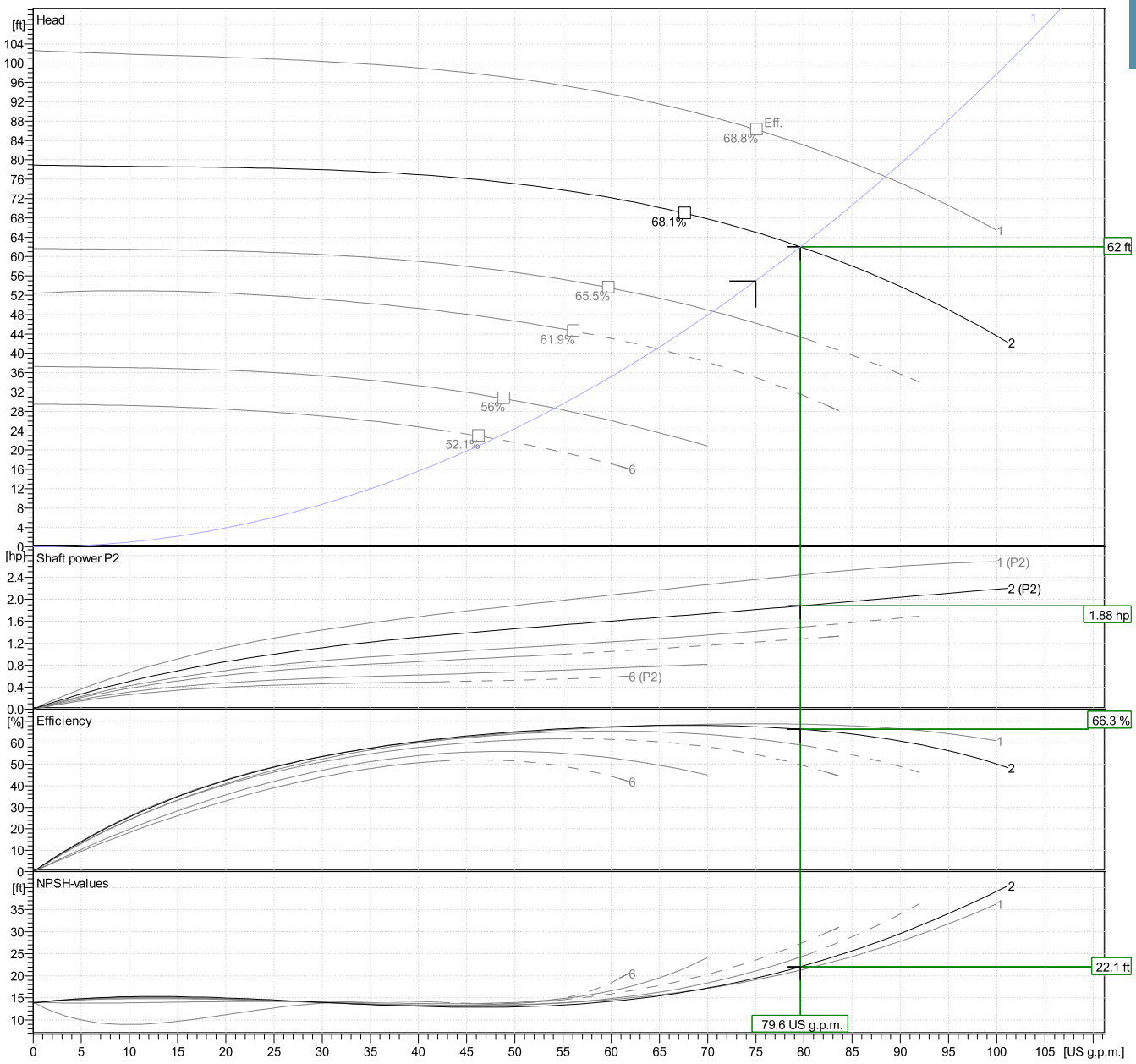
Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

2BF82034

Hydraulic Data

Operating Data Specification		Hydraulic data (duty point)		Impeller design	
Flow	75 US g.p.m.			Impeller R	4 3/8 inch
Head	55 ft	Flow	79.6 US g.p.m.	Frequency	60 Hz
Static head	0 ft	Head	62 ft	Speed	3600 rpm

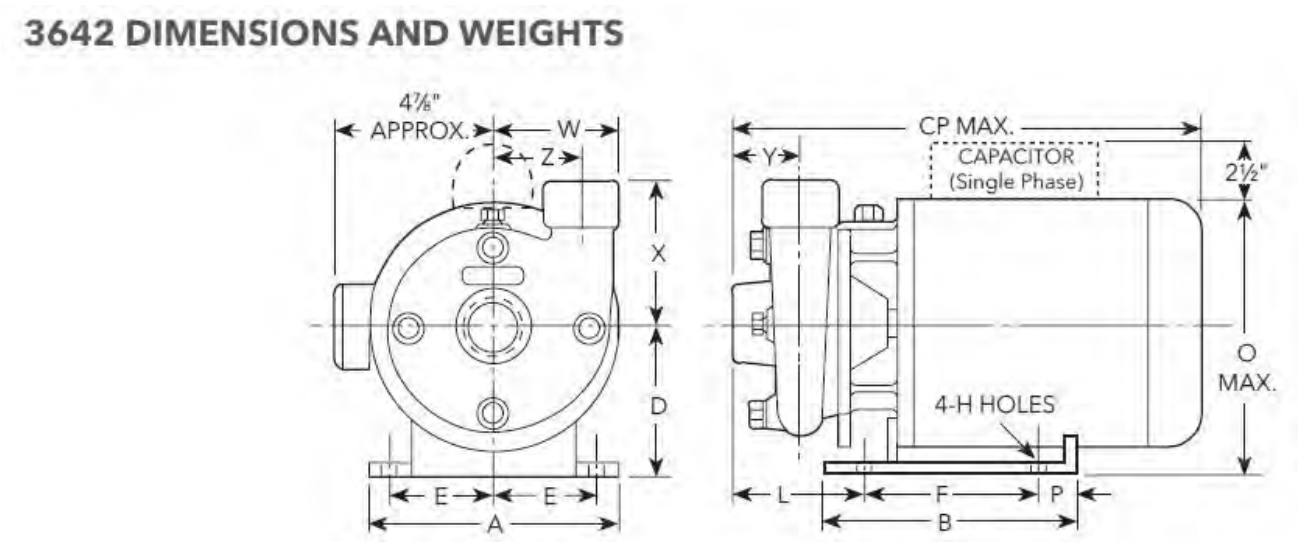
Power data referred to:
Water [100%] ; 39.2°F; 62.4lb/ft³; 1.69E-5ft²/s
Performance according to ISO 9906:2012 – Grade 3B



Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

2BF82034

Drawing



Dimensions inch

Dimensions	Value
A	$6^{3}/_{4}$
B	$5^{7}/_{8}$
CP	$17^{11}/_{16}$
D	$4^{1}/_{8}$
E	$2^{15}/_{16}$
F	5
H	$^{7}/_{16}$
L	$3^{7}/_{8}$
O	$7^{3}/_{8}$
P	$^{7}/_{16}$
W	4
X	4
Y	$2^{1}/_{4}$
Z	$2^{15}/_{16}$

Weight 101.4 lb

FEED PUMP

FEED PUMP

Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

1ST1E9D4

Technical Data

Operating data

Pump type		Single Stage End Suction Pumps	Fluid		Water
No. of pumps/ Reserve		1 / 0	Operating temperature t A	°F	39.2
Nominal flow	US g.p.m.	9.999	pH-value at t A		7
Nominal head	ft	85.01	Density at t A	lb/ft³	62.4
Static head	ft	0	Kin. viscosity at t A	ft²/s	1.689E-5
Inlet pressure	psi	0	Vapor pressure at t A	psi	14.5
Environmental temperature	°F	68	Solids		0
Available system NPSH	ft	0	Altitude	ft	0

Pump data

Make		Goulds Water Technology		Nominal	US g.p.m.	10.3	(10.3)
Speed	rpm	3500	Flow	Max-	US g.p.m.	44	
No. of stages		1		Min-	US g.p.m.		
Max. casing pressure	psi			Nominal	ft	91	
Max. working pressure	psi	41.5	Head	at Qmax	ft	47.7	
Head H(Q=0)	ft	96		at Qmin	ft	95.7	
Weight	lb	43	Shaft power		hp	.6	(.6)
Max.	inch	6 1/8	Max. shaft power		hp	1.1	
Impeller R designed	inch	4 3/4	Efficiency		%	38.82	
Min.	inch	4 1/16	NPSH 3%		ft	3.6	

Shaft Seal

Make	John Crane
Type of Shaft Seal	Type 21
Seal Material Code	Car/SilCar/Viton/316 SS (10K55) (Std.)
1 - Rotating	Carbon
2 - Stationary	Silicon Carbide
3 - Elastomers	Viton
4 - Metal Parts	316 SS

Motor data

Manufacturer	BMW	Electric voltage	460 V	Speed	3500 rpm
Specific design	3ph TEPE	Electric current	1.6 A	Frame size	56J
Type	208-230/460V 56J (E06C32E5EB5G)	Rated power	1 hp	Insulation class	B
		Degree of protection	IP 55	Colour	RAL 5010

Remarks:

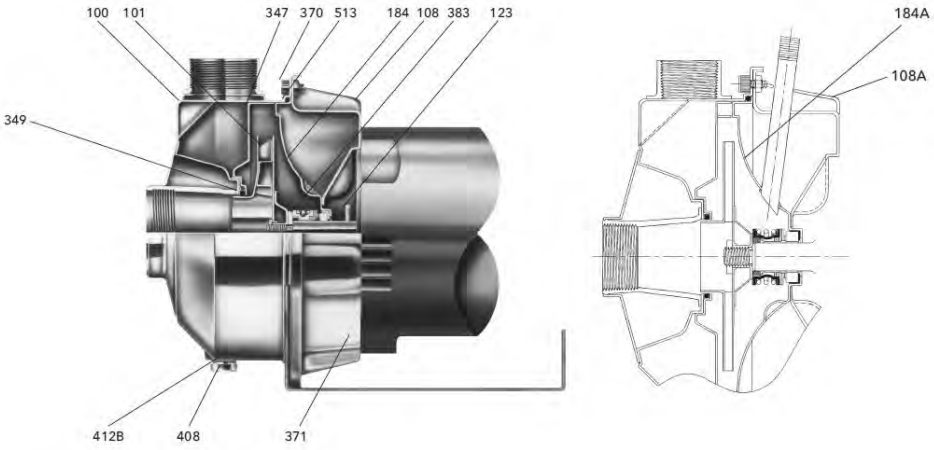
Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

1ST1E9D4

Construction Data

PumpMaterials

100 - Casing	AISI 316L SS
101 - Impeller	AISI 316L SS
108 - Motor adapter	AISI 316L SS
108A - Motor adapter seal vent/flush	AISI 316L SS
123 - Deflector	BUNA-N
184 - Seal housing	AISI 316L SS
184 A - Seal housing seal vent/flush	AISI 316L SS
347 - Guidevane	AISI 316L SS
349 - Seal ring, guidevane	Viton
370 - Socket head screws, casing	AISI 410 SS
371 - Bolts, motor	Plated Steel
383 - Mechanical seal	Refer Mechanical Seals
408 - Drain and vent plug, casing	AISI 316L SS
412B - O-ring, drain and vent plug	Viton (Standard), EPR (Optional)
513 - O-ring, casing	Viton (Standard), EPR (Optional)
Motor - NEMA standard, 56J flange	-



Remarks:

GOULDS WATER TECHNOLOGY
a xylem brand

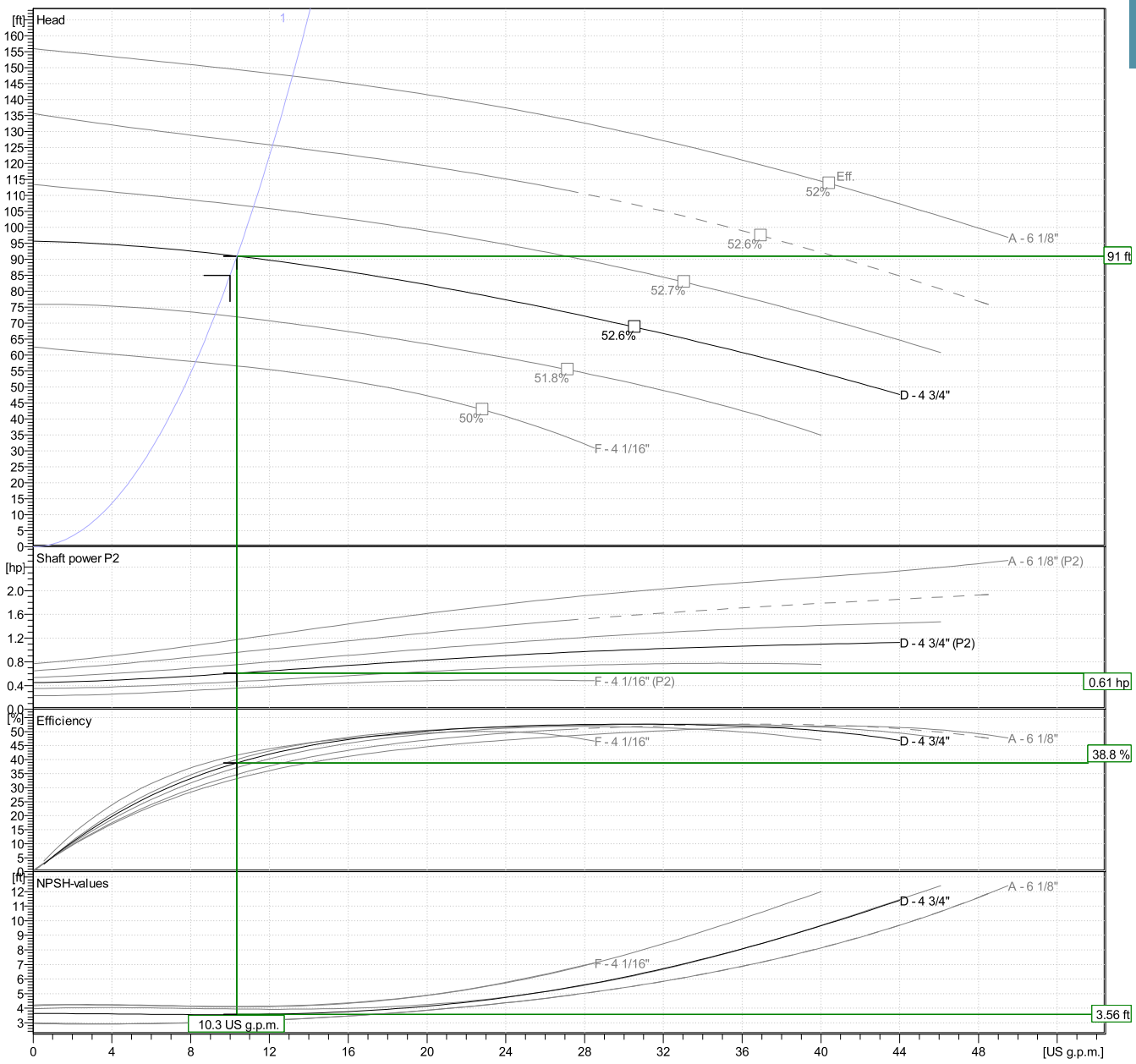
Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

1ST1E9D4

Hydraulic Data

Operating Data Specification		Hydraulic data (duty point)		Impeller design	
Flow	10 US g.p.m.			Impeller R	4 3/4 inch
Head	85 ft	Flow	10.3 US g.p.m.	Frequency	60 Hz
Static head	0 ft	Head	91 ft	Speed	3500 rpm

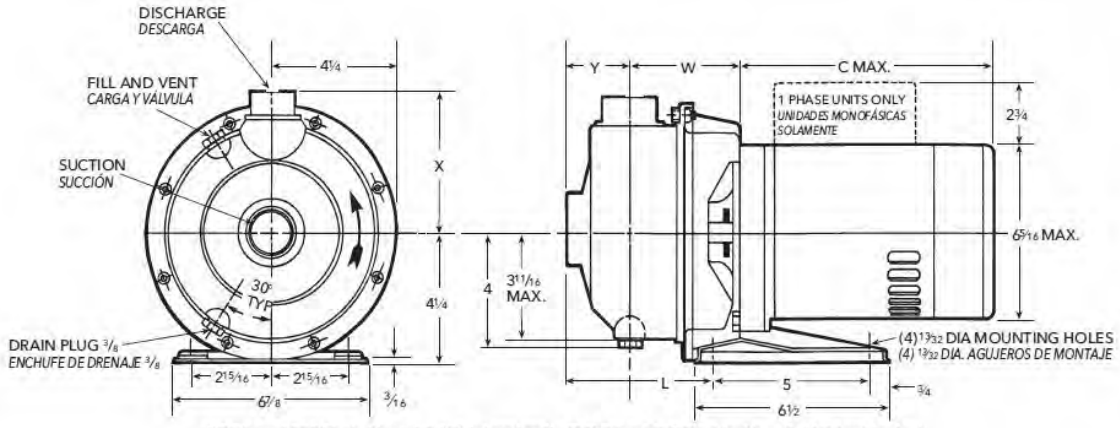
Power data referred to:
Water [100%] ; 39.2°F; 62.4lb/ft³; 1.69E-5ft²/s
Performance according to ISO 9906:2012 – Grade 3B



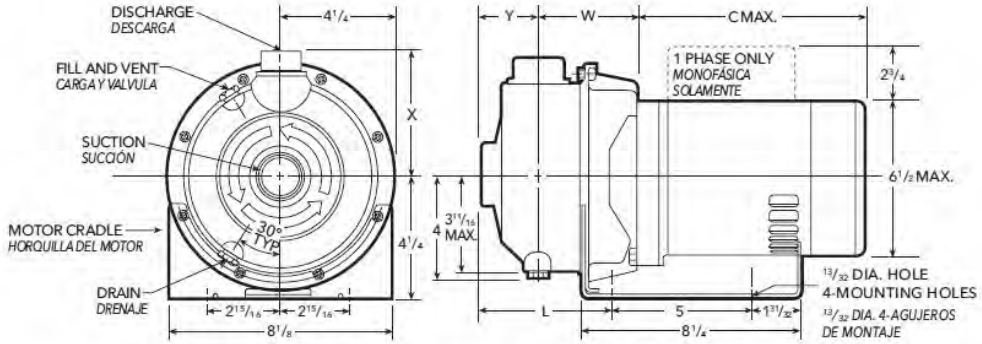
Customer	Date 29.07.2022
Contact	Project
Phone number	Project no.
Email	

1ST1E9D4

Drawing



ODP* and TEFC* ½, ¾ and 1 HP (standard), *ODP* y TEFC* ½, ¾ y 1 HP (estándar)*



ODP* and TEFC* 1½, 2, 3 and 5 HP (standard), *ODP* y TEFC* 1½, 2, 3 y 5 HP (estándar)*

Dimensions inch

Dimensions	Value
C(Max) Length	13 1/8
Discharge NPT	1
L	4 9/16
P(Max)	7 3/16
Suction NPT	1 1/4
W	3 5/16
X	4 3/8
Y	2

Weight	43	lb

FILTER HOUSING

Customer Service: 630.629.6600

The CARY COMPANY Est. 1895

Part # : 21B22B

4-Bag Size #2 (30" Basket Depth) Carbon Steel Multi-Bag Filter Vessel, 3" Flange

Part # : 21B22B

4-Bag Size #2 (30" Basket Depth) Carbon Steel Multi-Bag Filter Vessel, 3" Flange

This high capacity bag filter housing unit is made of carbon steel. The vessel comes with 4 filter bags, carbon steel legs and a standard 304 stainless steel (SS) basket. Pipe size is 3" flange with a 90° elbow outlet. 150 PSI pressure rating. (22-30-3F-3-150-CS-BS-PB-DP)

Product Specifications

Quantity	Qty	Price
1	$5,578.580 ea.	

QTY 1 *Add to Cart*

Availability: 7-9 Weeks

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Specifications

Q & A

Videos

Specifications

This high capacity bag filter housing unit is made of carbon steel. The vessel comes with 4 filter bags, carbon steel legs and a standard 304 stainless steel (SS) basket. Pipe size is 3" flange with a 90° elbow outlet. 150 PSI pressure rating. (22-30-3F-3-150-CS-BS-PB-DP)

Key benefits:

- Easy to clean

Additional Information

Material	**Carbon Steel**
Size	**2 (7.06" x 32")**

- Easy to clean
- Adjustable-height legs, standard
- Low pressure drops
- Carbon steel construction
- Standard 304 SS basket
- Includes DP ports
- Proudly Made in the USA

Downloads:

Filter Housing Worksheet

How to Order a Model a Multi-Bag Vessel

Material:

Carbon steel (CS) is metal alloy that is made of iron and carbon. It is known as a cost-effective alloying material. There are four types of carbon steel that vary in strength level: low carbon steel, medium carbon steel, high carbon steel, and very high carbon steel. Engine parts, car body panels, and select knives are made of carbon steel. The Cary Company also has carbon steel IBC tanks, filter vessels, and drums that work well with many liquids.

Disclaimer: This information has been provided as a general guide. It is the customer's responsibility to select the proper container for product and application compatibility. The Cary Company does hereby disclaim any and all warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose or use. We are not responsible for consequential damages arising from customer's selection and use of containers, container and label dimensions, and/or closures supplied by us.

Bag/Cartridge Qty	**4 Bag**
Housing Size	**30"**
Pipe Size	**3" Flange**
Outlet Style	**90° Elbow**
Pressure Rating	**150 PSI**
Seal	**Buna Seal**
Basket Style	**Standard Basket**
Pallet Dimensions	**40" L x 80" W x 36" H**
Weight	**800 lbs.**
Country of Manufacture	**United States**

Q & A

Customer Questions

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You May Also Like

4-Bag Size #2 (30" Basket Depth) 304 Stainless Steel Multi-Bag Filter Vessel

Part #: S-4S-22-30

Quantity	Qty	Price
1	$11,913.000ea.	

4-Bag Size #2 (30" Basket Depth) 304 Stainless Steel Multi-Bag Filter Vessel, 4"

Part #: 21B22F

Quantity	Qty	Price
1	$10,224.200ea.	
2	$9,654.220ea.	

4-Bag Size #2 (30" Basket Depth) Carbon Steel Multi-Bag Filter Vessel (Configurable)

Part #: S-CS-22-30

Quantity	Qty	Price
1	$5,155.700ea.	

4-Bag S Depth) Ca Filter

Quantity
1
2

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The CARY COMPANY Est. 1895

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FLOWMETER

iMAG 4700p

Municipal/Industrial Magmeter Instructions

iMAG 4700p

Seametrics

PROUDLY MADE IN THE USA

ISO 9001

General Information

Installation

Connections

Configuration

Operation

Troubleshooting & Error Messages

Warranty

Note: These instructions cover the iMAG 4700p For details on the iMAG 4700 or 4700r, see the *iMAG 4700* or *iMAG 4700r Municipal/Industrial Magmeter Instructions*.

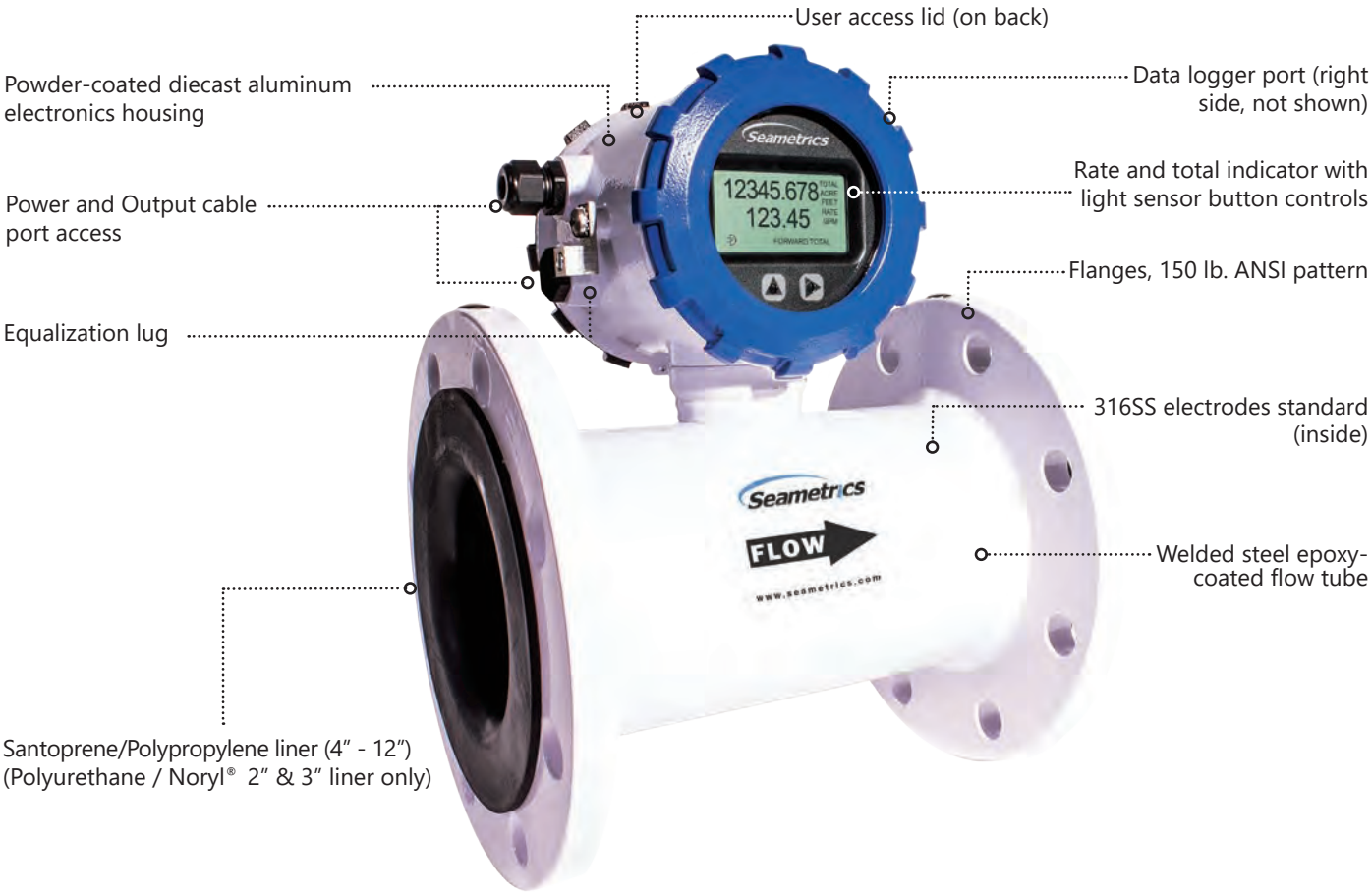
The **iMAG-Series** are the most economical flanged electromagnetic flowmeters on the market. With electrodes designed to discourage fouling, it is available in 2" to 12" pipe in municipal or industrial water, waste and reclaimed water, pump stations, and packaged plant applications. Minimal straight pipe requirements allow iMAG-Series meters to be used in piping configurations where there is little space between the meter and an elbow.

iMAG-Series meters are CE certified, certified to NSF/ANSI standard 61 and are rated IP68 for applications where the meter may be operated under water to a depth of at least 10 feet (3 meters) continuously.

Both rate and total indication are standard. Rate and total units and pulse scaling can be set via the front panel touch key pad by the user. Bidirectional flow reading is standard with totals available in forward, reverse, net flow, batch forward flow, and batch reverse flow. Built-in data logging is available as an option for secure flow logging.

A power/output cable allows outputs for use with a variety of Seametrics and other displays and controls for remote reading and telemetry applications. Pulse output and 4-20mA passive current loop are standard on all units. Additionally, high speed digital, and Modbus® protocol outputs are optional. The iMAG 4700p can be supplied with an optional internal AC power supply.

Features



No moving parts

Specifications*

Pipe Sizes		2", 3", 4", 6", 8", 10", 12"					
Flanges		150 lb. ANSI Pattern					
Pressure		150 psi (10.3 bar) line pressure					
Temperature	**Operating**	10˚ to 140˚ F (-12˚ to 60˚ C)					
	Storage	-40˚ to 158˚ F (-40˚ to 70˚ C)					
Accuracy		±0.75% of reading on iMAG 4700p and 4700r (±1.0% iMAG 4700), ±0.025% of full-scale flow from low flow cutoff to maxi. flow rate of 10 m/sec					
Low Flow Cutoff		0.5% of maximum flow rate					
Material	**Body** *(2"-12")*	Welded steel, epoxy-coated					
	Liner *(2" & 3")*	Polyurethane/Noryl®					
	Liner *(4"-12")*	Santoprene flange/Polypropylene liner body					
	Electronics Housing	Powder-coated diecast aluminum					
	Electrodes	316 stainless steel					
Display	**Type**	128x64 dot-matrix LCD					
	Digits	5 Digit Rate			8 Digit Total		
	Units *Please Note: All iMAG meters are factory set for gallons per minute (GPM) rate and gallons total. If other units are required, they can be set in the field.*	Rate Volume Units		Rate Time Units	Total Volume Units		
		Gallons Liters Barrels(42 gal) Cubic Feet Cubic Meters	Million Gallons[2] Mega Liters[2] Imperial Gallons Million Imperial Gallons[2]	Second Minute Hour Day	Gallons Gallons x 10 Gallons x 100 Gallons x 1000 Million Gallons Liters Kilo Liters Mega Liters	Barrels (42 gal) Cubic Meters Cubic Meters x 1000 Cubic Feet Cubic Feet x 100 Cubic Feet x 1000 Second Foot Day Million Cubic Feet	Acre Feet Acre Inches Imperial Gallons Imperial Gallons x 1000 Million Imperial Gallons Fluid Ounces
	Bidirectional[1]	Forward Total, Reverse Total, Net Total, Batch Forward Total, Batch Reverse Total[3]					
Power	**DC Power**	9-36 Vdc @ 250 mA max, 30 mA average					
	Battery Backup (Not for use as primary power)	DC powered units: One lithium 7.2V 'D' size battery pack, replaceable. AC powered units: One 9V alkaline battery, replaceable.					
	AC Power	85-264Vac, 50/60Hz, 0.12A *(iMAG 4700r and 4700p only)*					
Scaled Pulse Output	**Signal**	Current sinking pulse, isolated, 36 Vdc at 10 mA max					
	Pulse Rates	User-scalable from 0.1 to 99,999.9 volume units/pulse. Pulse width is one-half of pulse period with minimum pulse width of 2.5 ms, 200 pulses/sec max. For battery option meters, pulse width varies with frequency, 150 pulses/sec max.					
Options	**4-20mA Current Loop**	Isolated, passive, 24Vdc, 650 Ω maximum current loop					
	High Speed Digital	Isolated, open collector, 24 Vdc *(iMAG4700p only)*					
	Serial Communications	Isolated, asynchronous serial RS485, Modbus® RTU protocol					
Cable	**Power/Output Cable**	20ft (6m) standard length polyurethane jacketed cable—for power and outputs (lengths up to 200' available).					
	Remote Display Cable	20ft (6m) standard length polyurethane jacketed cable—for connection between meter and remote display (lengths up to 200' available). *(iMAG 4700r)*					
Conductivity		>20 microSiemens/cm					
Empty Pipe Detection		Hardware/software, conductivity-based					
Regulatory		CE (EN 61326), 2"-12" certified to NSF/ANSI standard 61 60°C (140°F)					
Environmental		NEMA 6P, IP68 (10ft (3m) depth, continuously)					

Modbus is a registered trademark of Schneider Electric.

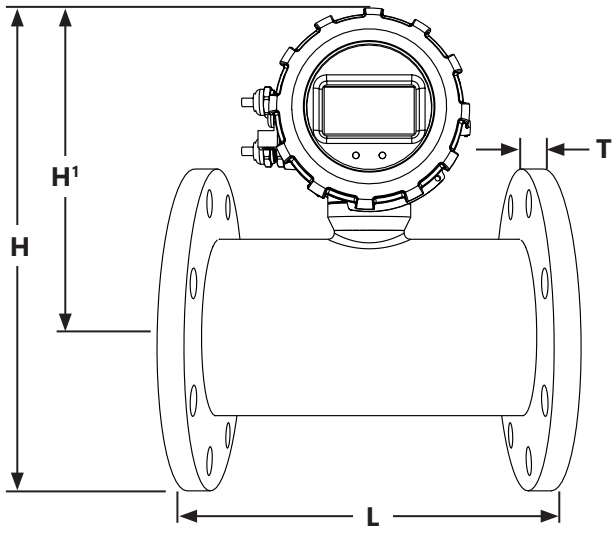
* *Specifications subject to change. Please consult our website for the most current data (www.seametrics.com).*

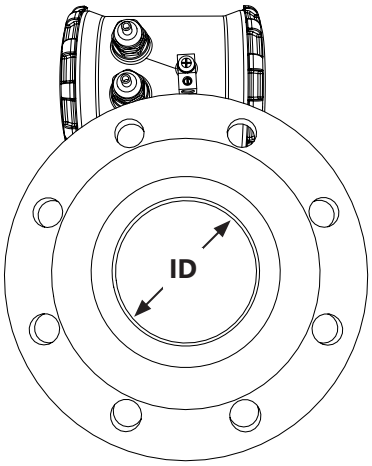
[1] *If forward and reverse flow data needs to be sent to another device, either the Digital or Modbus output is required.*

[2] *Rate Time Unit is available in Day only.*

[3] *Forward and reverse flow totals are non-resettable. Batch forward and batch reverse totals can be reset.*

Dimensions



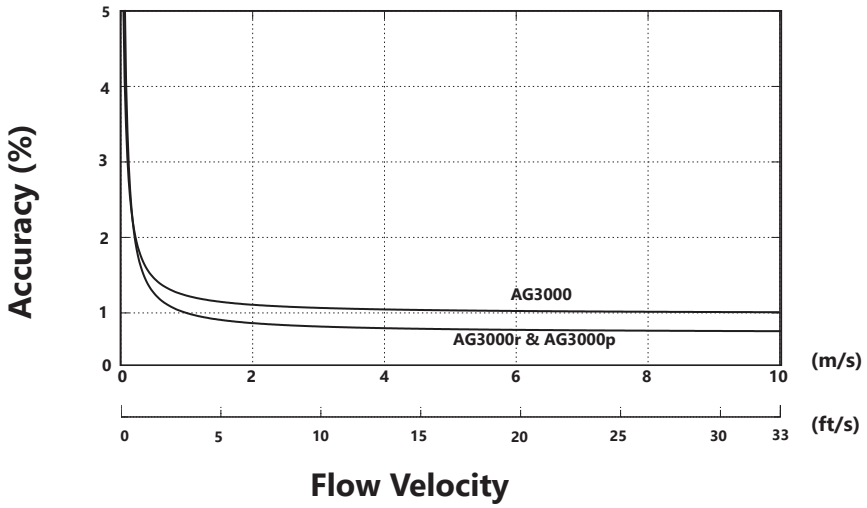


iMAG 4700 Meter Size	L		H¹		H		T		ID		Bolt Holes	Shipping Weight iMAG 4700p	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	#	lbs	Kg
2″	7.9	200	7.8	198	10.8	274	.62	15.7	1.76*	45*	4	21	9.5
3″	7.9	200	8.35	212	12.1	307	.62	15.7	2.68*	68*	4	27	12.3
4″	10.12	257	8.6	218	13.1	332	.62	15.7	3.12	79	8	34	15.5
6″	12.09	307	9.4	239	14.9	378	.69	17.5	5.05	128	8	50	22.5
8″	14.14	359	10.4	264	17.15	435	.69	17.5	6.44	164	8	71	32
10″	18.08	459	11.5	292	19.5	495	.69	17.5	8.61	219	12	130	59
12″	19.68	500	12.5	317	22	559	.81	20.6	10.55	268	12	170	77
Flanges	Standard ANSI 150 lb. drilling											Cable 1 lb.	

Note: 'L' dimension is total from liner face to liner face *Average ID

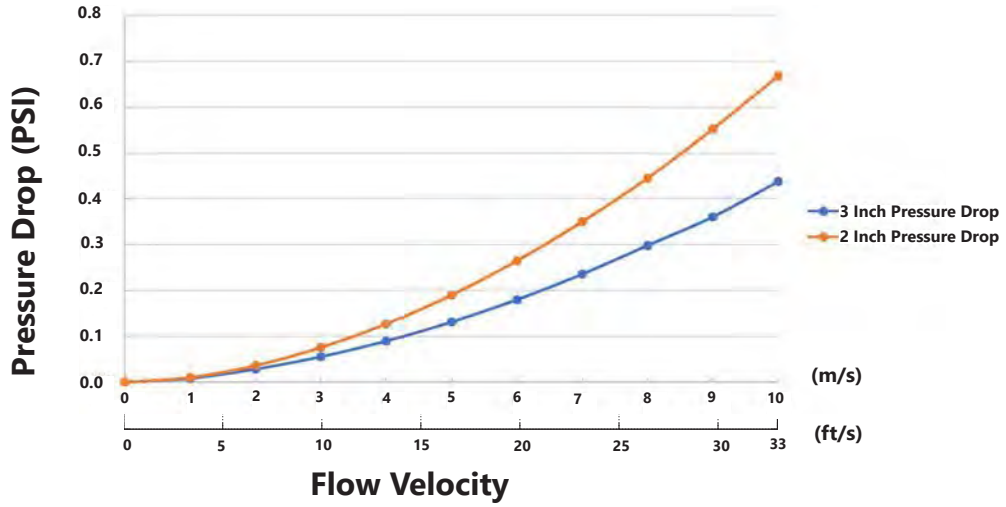
Install security seals during installation if regulations require.

iMAG Accuracy



2" & 3" Pressure Drop

Note: No pressure drop in 4"-12" meters



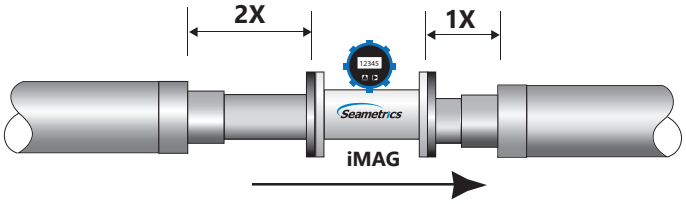
Flow Rate (2" - 12")

Pipe Size *(Inches in diameter)*	2"	3"	4"	6"	8"	10"	12"
Max Flow Rate *(Gallons/Minute)*	321	722	1285	2891	5140	8031	11565
Cut-off (min) Flow Rate *(Gallons/Minute)*	2	4.0	6.43	14.46	25.70	40.15	57.82
Max Flow Rate *(Liters/Second)*	20.25	46	81	182	324	507	730
Cut-off (min) Flow Rate *(Liters/Second)*	0.13	0.23	0.41	0.91	1.62	2.54	3.65
Max Flow Velocity *(Meters/Second)*	10	10	10	10	10	10	10

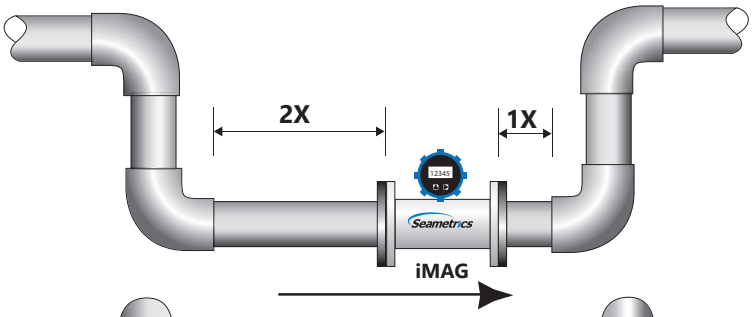
Straight Pipe Recommendations *(X = diameter)*

NOTE: These configurations are to be used as general guidelines and do not cover every possible installation. A combination of two or more obstructions will require additional straight pipe. If there is any concern about the length of pipe required for a specific application, please contact your local dealer.

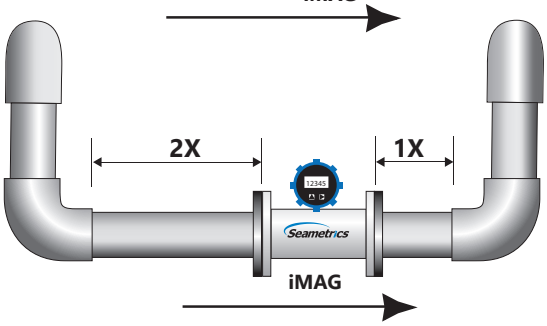
Reduced Pipe



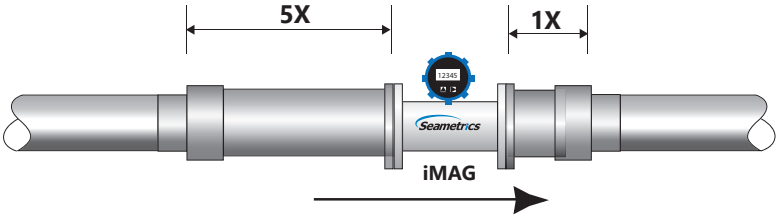
Two Elbows In Plane



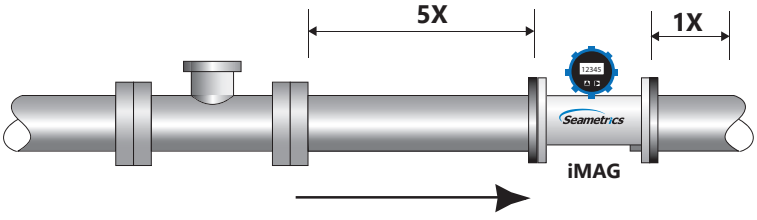
Two Elbows, Out Of Plane



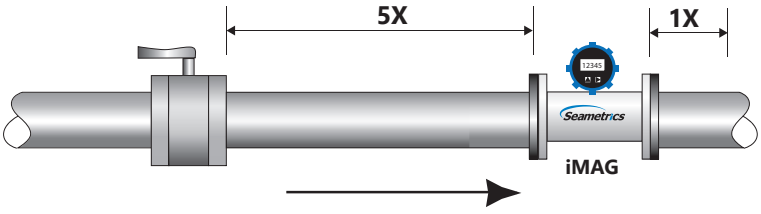
Expanded Pipe



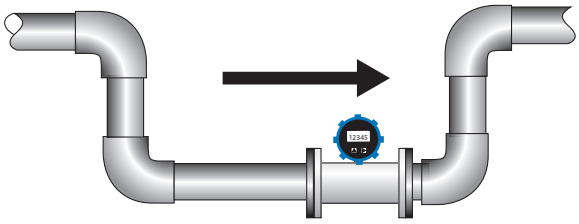
Swirling Flow: Propeller Meter



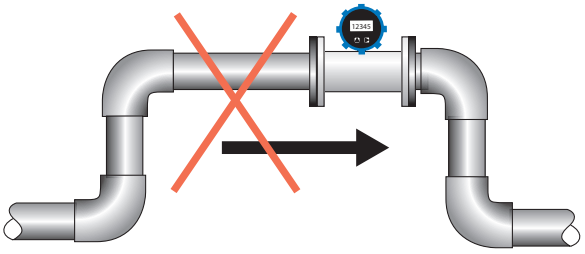
Swirling Flow: Partially Open Butterfly Valve



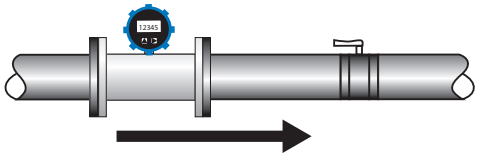
Full Pipe Recommendations



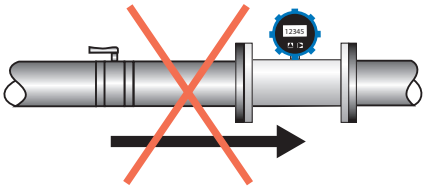
Recommended:
Keep pipe full at meter for accuracy



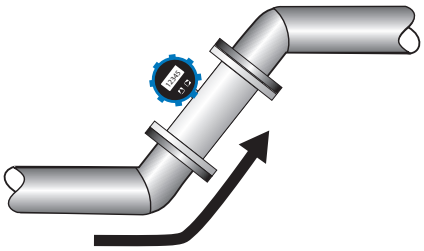
Not Ideal:
Allows air pockets to form at meter



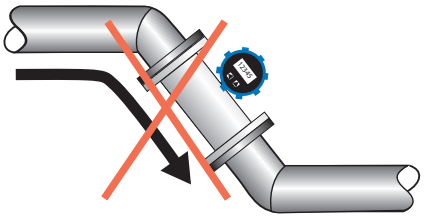
Recommended:
Keeps pipe full at meter for accuracy



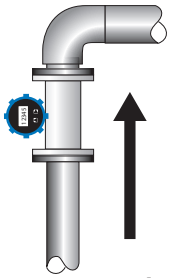
Not Ideal:
Post-valve cavitation can create air pocket



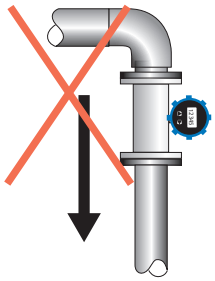
Recommended:
Allows air to bleed off



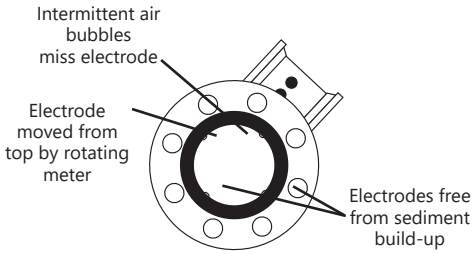
Not Ideal:
Air can be trapped



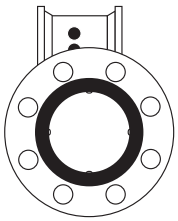
Recommended:
Allows air to bleed off



Not Ideal:
Air can be trapped



Recommended:
Improved accuracy results from unimpeded electrodes



Not Ideal:
Air bubbles and sediment on the electrodes can affect accuracy

Positioning the Meter

CAUTION: These flow sensors are not recommended where installation may expose the flow sensor to boiler pressure and temperature. Maximum recommended operating temperature of 140˚ F (60˚ C).

These meters can be installed horizontally, vertically (with upward flow), and in any radial position. **Using a check valve on the upstream side of the meter, and/or an air vent (vacuum relief valve) in the same, unobstructed run of pipe as the meter, is required in any installation where the meter may be exposed to suction when the system is not in normal operation. Suction can cause damage to the liner. Liner damage caused by suction, without the use of a check valve and/or air vent, may void the warranty.**

Straight Pipe Recommendations. The iMAG requires straight pipe before and after the meter for best accuracy. However, the ability of electromagnetic meters to average the flow across the entire pipe allows for shorter straight pipe recommendations than most mechanical meters (see page 7).

Full Pipe Recommendations. To prevent false readings, this meter is designed to indicate 'EMPTY PIPE' if one or more electrodes is exposed. For highest accuracy, install the meter so that the pipe will be full when there is flow. If air bubbles may be present in the pipe or sludge accumulation is an issue, rotate the meter by one flange hole to position the control housing at a 45˚ angle (see diagrams on page 8).

Fittings. The iMAG has ANSI 150 lb. drilled flanges and will mate with any other ANSI 150 lb. flanges. *See table on page 10 for flange bolt tightening torque specifications.*

Calibration. The iMAG is factory-calibrated before shipping. The frequency of recalibration will depend on the needs of each application and local regulatory policies.

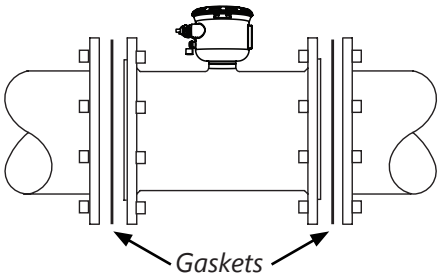
Chemical Injection. When the iMAG is used in a chemical injection application, **the chemical injection point must be placed downstream of the magmeter OR far enough upstream for complete mixing to occur before the fluid reaches the meter**. When unmixed chemical alternates with water passing through the meter, the rapid changes in conductivity may cause sudden spikes and drops in the meter's reading, resulting in inaccurate measurement. The magmeter will restabilize, however, with a steady flow of fluid of uniform conductivity.

CAUTION: In chemical injection applications, install chemical injection point downstream of magmeter, or far enough upstream to allow complete mixing of fluids.

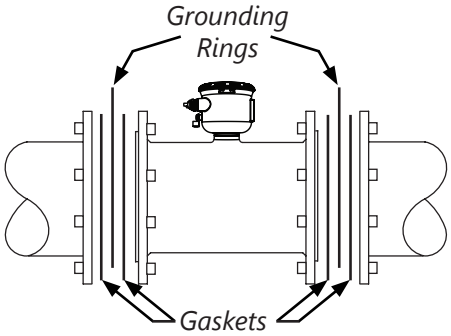
Installing Gaskets

GASKETS
Gaskets are required at all junctions.

1. Be sure all mating surfaces are smooth and free of debris.
2. Install Seametrics provided gaskets, or equivilent, on each end of meter as shown in diagrams below. If using grounding rings, install one gasket on each side of the grounding ring.
3. **Failure to install gaskets will void warranty.**



Installation <u>without</u> grounding rings

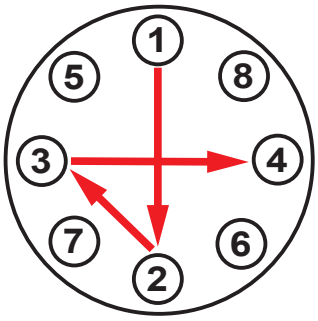


Installation <u>with</u> grounding rings

Tightening Flange Bolts

NOTE: Mating pipe flanges must be ANSI 150# full face (FF) and/or raised face (FT).

1. Tighten flange bolts in an alternating pattern.
   - Tighten left flange bolt-1 to 20% recommended torque.
   - Tighten right flange bolt-1 to 20% of recommended torque.
   - Repeat steps a and b for each bolt in an alternating order, such as shown at right, tightening to 40%, then 60%, then 80%, and then 100%.
2. Test for leaks.
3. If needed, tighten further in 10% increments until leaking stops. **DO NOT over-tighten. Over-tightening can cause serious damage to the flow meter.**
4. Recheck after 24 hours, adjusting if needed.



Suggested Tightening Sequence

Caution: Improper tightening sequence can cause serious damage to the flow meter.
- Do not tighten one side at a time.
- Do not tighten each bolt completely at one time.

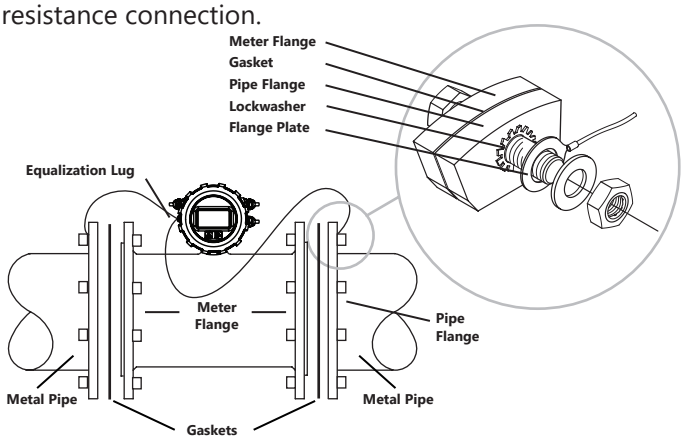
SUGGESTED FLANGE BOLT TORQUE

Pipe Size	Liner	
	ft-lb	Nm
2″	18	25
3″	25	34
4″	20	27
6″	42	57
8″	65	88
10″	73	99
12″	97	132

Equalization and Grounding

WARNING: ELECTRICAL SHOCK HAZARD
When the iMAG is installed in a plastic piping system, or when externally powered, the piping system must be grounded to meet national and local electrical safety codes. Failure to do so can result in electrocution.

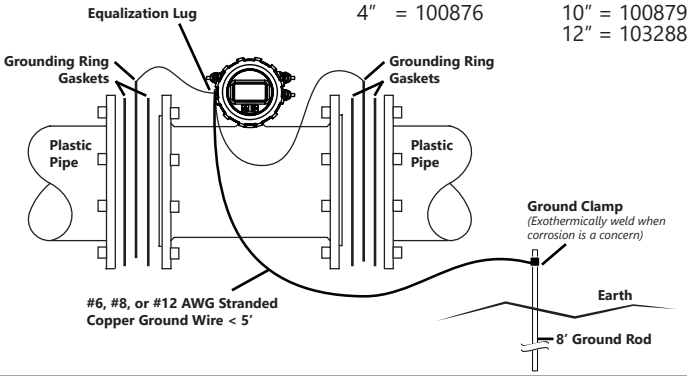
Metal Pipe Installations. To equalize the electrical potential of the fluid, the iMAG meter, and the surrounding pipe, secure the flange plates (factory-installed on the equalization wire) to both pipe flanges at one of the bolt holes, as shown below. Be sure the lock washer fits between the pipe flange and the flange plate. For the best electrical bonding, remove rust and paint to expose clean, bare metal where the equalization flange plate lock washer contacts the pipe flange. Connection must be inspected periodically for corrosion to maintain the necessary low resistance connection.



Plastic Pipe and Electronically Noisy Installations. When the iMAG 4700 is installed in plastic pipe or in an electrically noisy system (near a VFD etc.), grounding rings are recommended. As shown in the diagram below, the equalization wires should be solidly connected to the grounding ring tabs instead of the flange bolts as in metal piping installations. Where lightning is a threat, or in severe electrical environments, an optional connection to a nearby equipment ground or ground rod may be advisable.

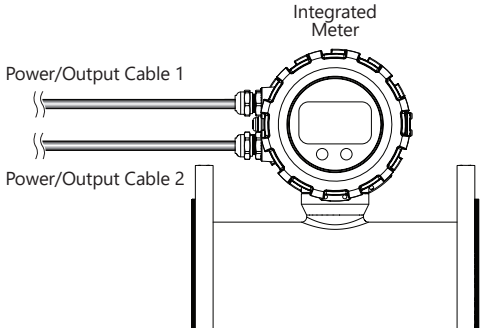
Grounding Ring Part Numbers:

2″ = 104124	6″ = 100877
3″ = 102157	8″ = 100878
4″ = 100876	10″ = 100879
	12″ = 103288

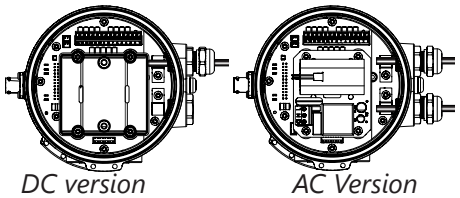


General Cable Information

In the iMAG 4700p meter, there are a maximum of two Power/Output cables that can be installed. These cables contain the wires for any available outputs (scaled pulse, 4-20mA, Modbus®, and Digital) and power (DC or AC). (See Cable Wiring Diagrams and Cable Wiring Table.)



The iMAG 4700p is available in either DC or AC versions.



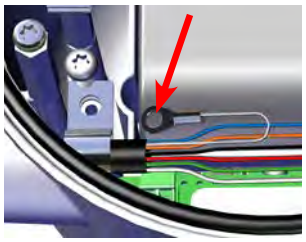
DC version *AC Version*

If the meter is configured with AC power, one of the Power/Output cable ports must be reserved for AC power only. We do not recommend combining AC power signals with any of the meter outputs in a single cable. If the meter is configured for DC power, you may have one or two cables, depending on configuration. (See Cable Wiring Diagrams.)

Cable Gland Opening and Sealing

WARNING: Improper sealing of glands or cables will invalidate any warranty. If plugs or cable glands are removed, reinstall using Teflon pipe sealant, or tape, to ensure maximum moisture protection.

Remove plug & o-ring. Insert cable gland/strain relief. Feed cable through cable gland.



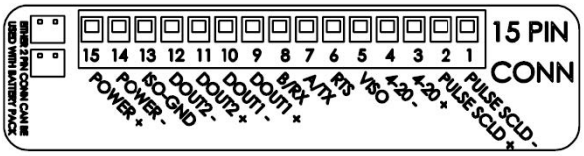
Clamp cable with strain relief clips. Attach drain wire lug to bracket post.

CRITICAL!
Torque cable gland sealing nut to 22 in-lbs.

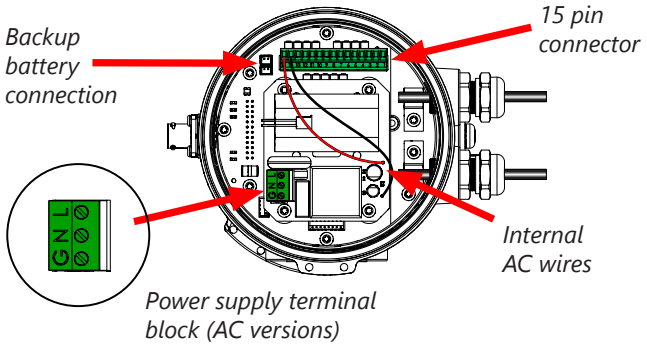
Cable Installation

1. On the back of the meter, unscrew the black user access lid and remove it.

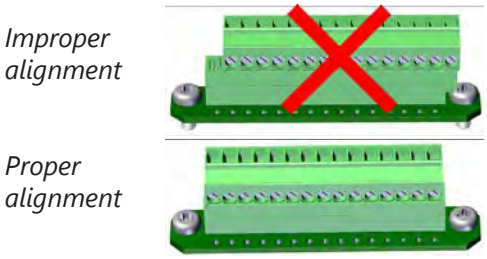
2. Remove the 15 pin screw connector from its bag.
3. Remove the plug and o-ring from the cable port(s) where you want to insert the cable(s).
4. Install cable gland(s) using Teflon pipe sealant, or tape, and insert cable end(s).
5. Strip cable jacket and conductors and install the wires into the 15 pin screw connector in their respective locations for your options, Modbus®, pulse, etc. (See Cable Wiring Table for details.)



6. If using AC power version continue here. If not, then skip to step 11. If AC then take the red and black wires coming out of the AC supply board and install in POWER+ and POWER- (red wire to pin 15, black wire to pin 14).
7. When the AC power supply board is installed, 85-264 VAC power is supplied via a 3 conductor power cord. If installed outdoors or less than 33ft. (10m) from a utility power service entrance, AC power should be supplied via a properly-grounded surge suppression device.
8. Remove the plug and o-ring from the AC cable port.
9. Install cable gland and insert cable end.
10. Strip cable jacket and conductors and install 3 conductor power cable and wire to Line (L), Neutral (N) and ground (G) positions on power supply terminal block.



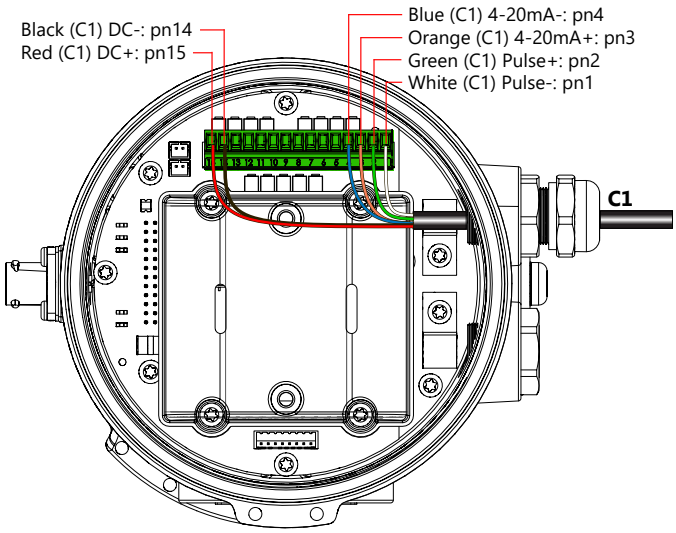
11. Plug the 15 pin screw connector into its socket. **Be sure all pins align properly and that the connector has not slipped to one side.**



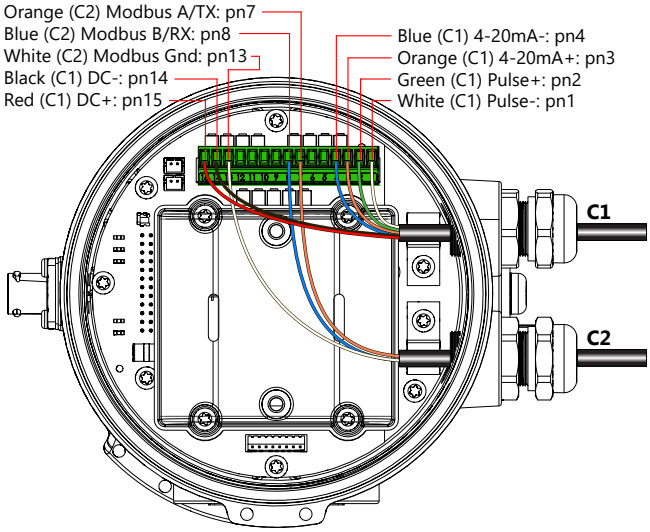
12. **Plug the backup battery cable into either of the two connectors to the left of the 15 pin connector.** (Standard backup batteries are two 3.6V "D" lithium cells. For the AC option, the backup battery is one 9V alkaline cell.)
13. Secure the cables inside the internal strain relief clip and tighten the cable gland sealing nut securely (torque nut to 22 in-lbs). A loose nut could cause moisture ingress and compromise the meter head's IP68 rating, voiding the warranty.
14. Reinstall the user access lid. Be sure to avoid cross-threading the lid and to not pinch any wires with the lid.

Wiring Diagrams

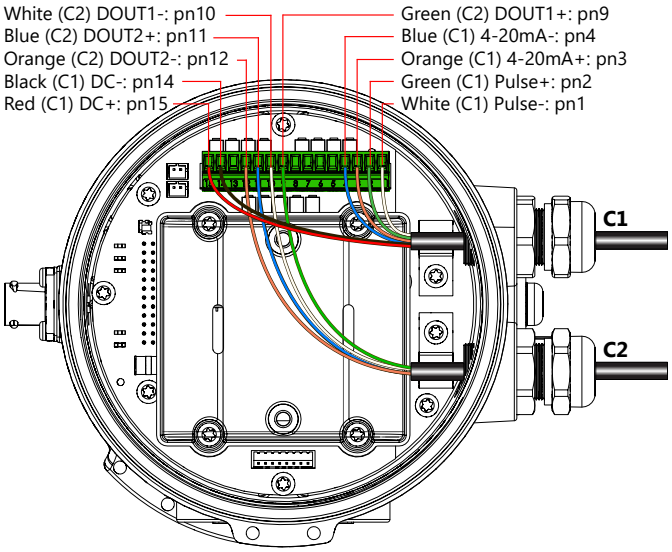
On the back of the meter, unscrew the black user access lid and remove it. Remove the 15 pin screw connector from its bag. Install the wires through the cable glands into the 15 pin screw connector in their respective locations. Plug the 15 pin screw connector into its socket. *(C1 = power/output cable 1, C2 = power/output cable 2)*



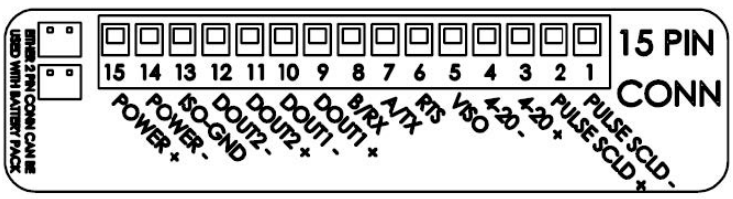
DC Power with Pulse and 4-20mA (D1X/D2X)



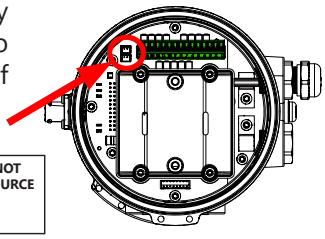
DC Power with Pulse, 4-20mA, and Modbus® (D1S/D2S)



DC Power with Pulse, 4-20mA, and Digital Out (D1G/D2G)



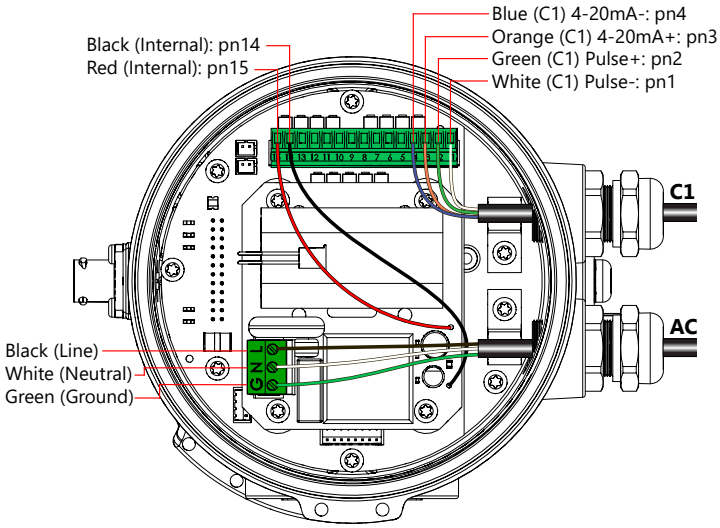
Plug the backup battery cable into either of the two connectors to the left of the 15 pin connector.



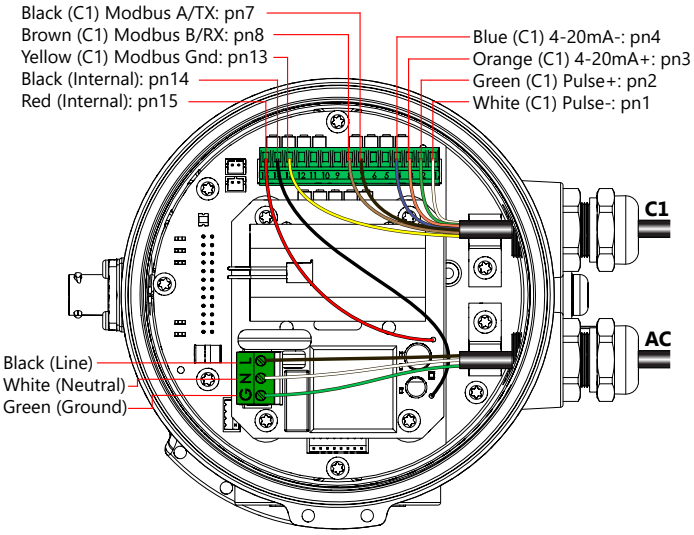
WARNING: BACKUP BATTERIES ARE NOT INTENDED AS A PRIMARY POWER SOURCE OF A MAINS (DC or AC) CONFIGURED METER.

Wiring Diagrams (continued)

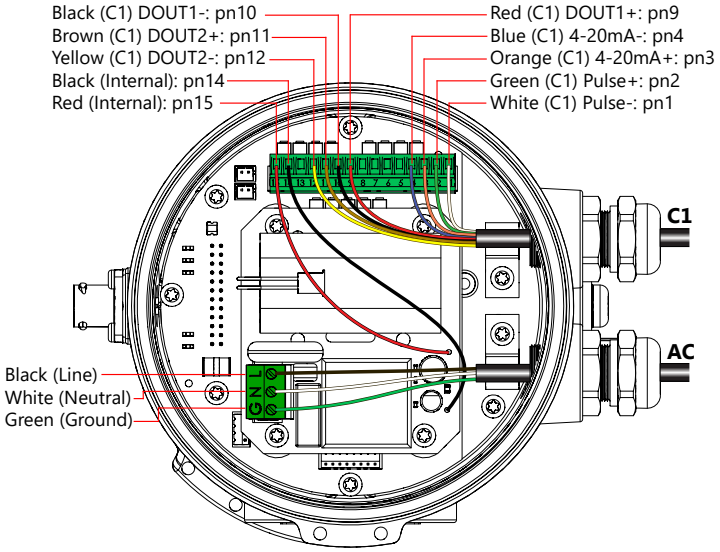
On the back of the meter, unscrew the black user access lid and remove it. Remove the 15 pin screw connector from its bag. Install the wires through the cable gland into the 15 pin screw connector in their respective locations. Connect internal black and red wires to pins 14 and 15, respectively. Plug the 15 pin screw connector into its socket. Install AC power cable through cable gland and connect to AC connector, as shown. *(C1 = power/output cable, AC = AC power cable)*



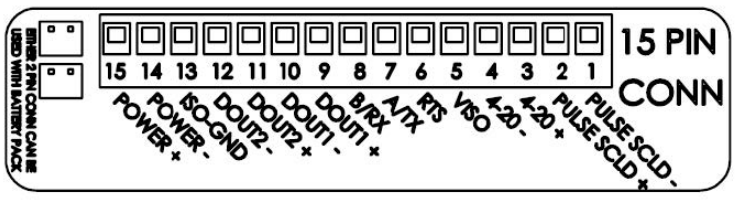
AC Power with Pulse and 4-20mA (A1X/A2X)



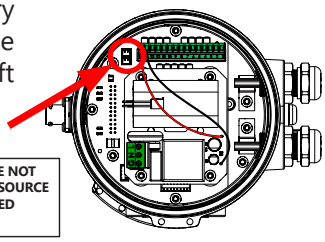
AC Power with Pulse, 4-20mA, and Modbus® (A1S/A2S)



AC Power with Pulse, 4-20mA, and Digital Out (A1G/A2G)



Plug the backup battery cable into either of the two connectors to the left of the 15 pin connector.



WARNING: BACKUP BATTERIES ARE NOT INTENDED AS A PRIMARY POWER SOURCE OF A MAINS (DC or AC) CONFIGURED METER.

Cable Wiring Table

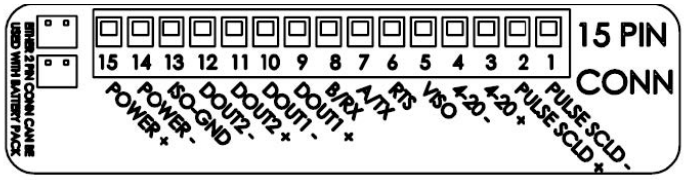
PIN	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
O ID	**PWR+**	**PWR-**	**ISO-GND**	**DOUT 2 -**	**DOUT 2 +**	**DOUT 1 -**	**DOUT 1 +**	**B/RX**	**A/TX**	**RTS**	**VISO**	**4-20 -**	**4-20 +**	**PULSE SCLD+**	**PULSE SCLD-**
D1X/ D2X	RED C1	BLACK C1										BLUE C1	ORNG C1	GREEN C1	WHITE C1
D1S/ D2S	RED C1	BLACK C1	WHITE C2					BLUE C2	ORNG C2			BLUE C1	ORNG C1	GREEN C1	WHITE C1
D1G/ D2G	RED C1	BLACK C1		ORNG C2	BLUE C2	WHITE C2	GREEN C2					BLUE C1	ORNG C1	GREEN C1	WHITE C1
A1X/ A2X	RED INT	BLACK INT										BLUE C1	ORNG C1	GREEN C1	WHITE C1
A1S/ A2S	RED INT	BLACK INT	YELLOW C1					BROWN C1	BLACK C1			BLUE C1	ORNG C1	GREEN C1	WHITE C1
A1G/ A2G	RED INT	BLACK INT		YELLOW C1	BROWN C1	BLACK C1	RED C1					BLUE C1	ORNG C1	GREEN C1	WHITE C1

(C1 = power/output cable 1 C2 = power/output cable 2 INT = Internal AC power wires)

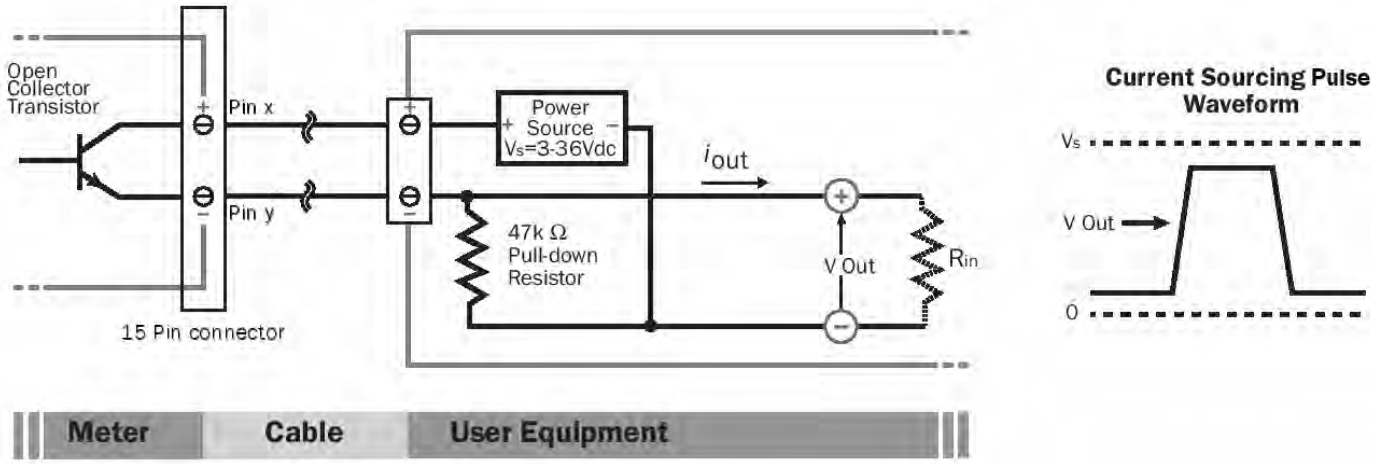
Option IDs

O ID **POWER SOURCE / OUTPUT(S)**

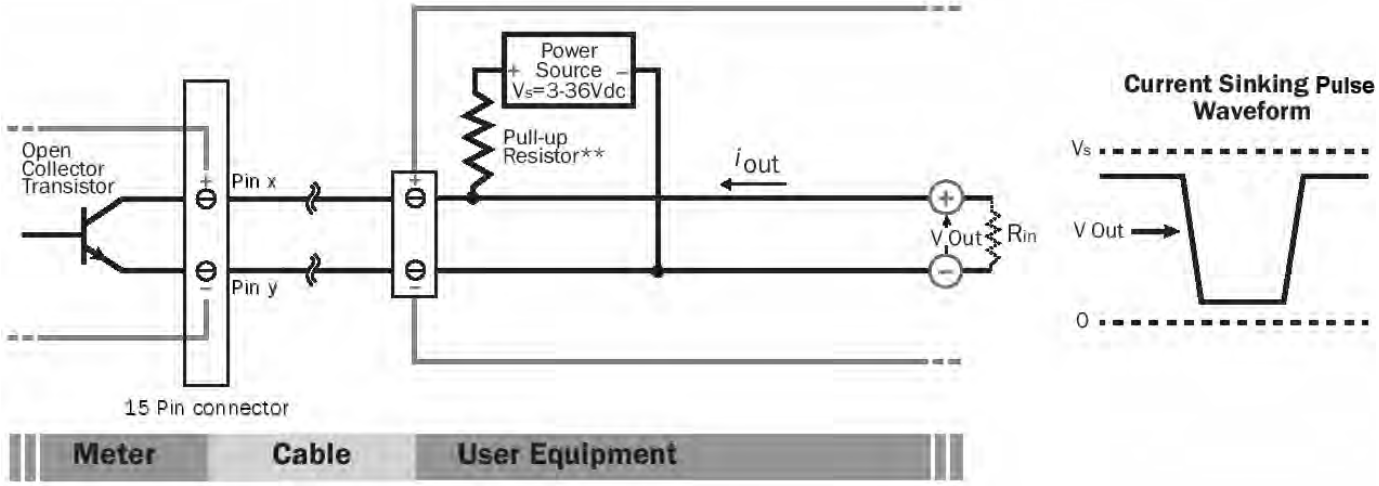
D1X/D2X = DC POWER / PULSE SCALED AND 4-20mA
D1S/D2S = DC POWER / PULSE SCALED, 4-20mA, AND MODBUS®
D1G/D2G = DC POWER / PULSE SCALED, 4-20mA, AND DIGITAL
A1X/A2X = AC POWER / PULSE SCALED AND 4-20mA
A1S/A2S = AC POWER / PULSE SCALED, 4-20mA, AND MODBUS®
A1G/A2G = AC POWER / PULSE SCALED, 4-20mA AND DIGITAL



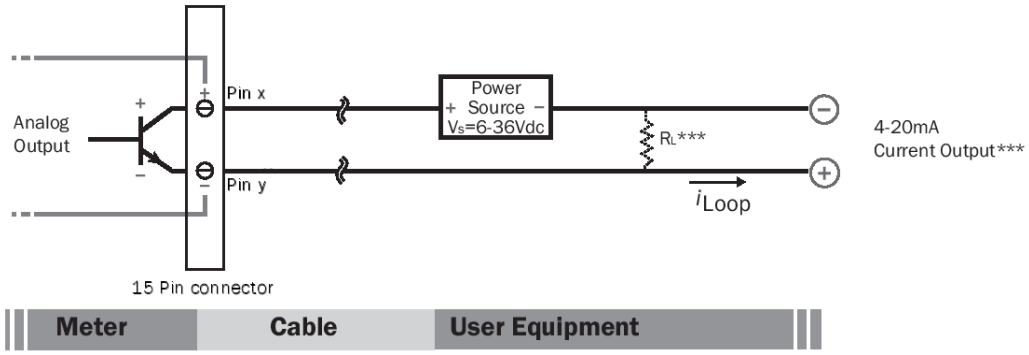
Pulse or Digital Output Application - Sourcing Mode (Recommended for Rin < 30kΩ)



Pulse or Digital Output Application - Sinking Mode (Recommended for Rin > 30kΩ)



Analog (4-20mA Current Loop) Output Application



*** Minimum resistor value is (100 x Vs) ohms. Higher resistances maybe used depending on frequency and cable length. Longer cables and high frequencies require lower resistance.*

**** Resistor RL converts 4-20mA current to voltage for voltage input only devices.*

Cable Shield. In general, the cable shield and its bare drain wire should be left unconnected at the user equipment end of the cable to minimize "ground loop" problems.

Pulse Output Configuration. A pulse output is standard on all models. Since this is an isolated output, the external equipment must include a DC power source to regenerate the pulse from the open-collector output (transistor equivalent of a contact closure). A pull-up or pull-down resistor may be needed if not included in the user equipment as shown in the diagrams. Both the power source and resistor may be supplied internally in some types of control and monitoring devices. If not, as for most PLC discrete input modules, they must be added externally at the module input terminals. The pulse output rate in volume units/pulse can be set by the user via the SETP tab on the meter's setup menus.

Because the pulse output of an iMAG 4700 meter is set by the user, care must be taken to assure the output pulses do not exceed the maximum frequency of the meter while also ensuring a reasonable resolution. The iMAG 4700p has a maximum pulse output of 200 Hz

K-factor: Remember that SETP is expressed in units totaled per output pulse (G/P if using gallons) while K-factors are expressed in pulses per gallon (P/G.) To determine K-factor from SETP, divide 1 by SETP (if SETP is expressed in gallons.) Conversely, 1 divided by the K-factor equals SETP

Because all pulse outputs (SETP) are configured in (rate) units totaled per pulse, all sizes of meters can be configured with the same SETP values

For example, if your rate is chosen as gallons per minute (GPM) the table below applies. If your rate is different, simply use your rate label in place of (GPM.) The numerical values will remain the same.

Pulse Units. The units of measure of SETP are independently selectable and are not tied to rate or total. Upon change of the SETP unit, the pulse output may take up to 10 seconds, or the duration of one pulse (whichever is longer) to take effect.

If Pulse Output is Inconsistent. The PDAMP filter may need to be increased.

Pulse Width Timing. The unit and value of SETP must be chosen to keep the duration between meter pulse outputs to less than 500 seconds.

SETP	**Flow Rate at 1 Hz (GPM)**	**Flow Rate at 200 Hz (GPM)** *Powered Meters*	**Flow Rate at 150 Hz (GPM)** *Battery Powered Meters*
0.1	6	1200	900
0.2	12	2400	1800
0.3	18	3600	2700
0.4	24	4800	3600
0.5	30	6000	4500
0.6	36	7200	5400
0.7	42	8400	6300
0.8	48	9600	7200
0.9	54	10800	8100
1.0	60	12000	9000

Lower frequency output pulses (1 pulse for some particular number of gallons) can also be set.

Any output frequency can be determined by:

Rate (units/minute) ÷ SETP (units/pulse) = pulse/minute
Hz = pulse/minute ÷ 60 seconds / minutes

Analog Output (4-20mA) Configuration. Since the meter's analog output is isolated and passive, loop power must be supplied externally as shown on previous page. (In addition, an external resistor R_L will be needed to convert the loop current to voltage for voltage-only input devices.) The meter's loop transmitter minimum voltage drop is 6Vdc which, with wiring resistance and loop power supply voltage, will determine the maximum resistance for R_L. The flow rates corresponding to 4 and 20mA can be set by the user via the SET 4 and SET20 tabs on the meter's setup menus.

Note: As configured by the factory, any alarm state will force 22.8mA on the loop. This can be changed to 3.2mA - see Technical Bulletin, 'iMAG4700/AG3000: Changing the 4-20mA Alarm'.

Modbus® Serial Communication Configuration (factory configured). These connections provide a half-duplex, isolated, RS485 serial communications port using the Modbus messaging protocol. The port is reconfigurable by internal jumper settings to full-duplex RS232 or 3.3V CMOS (See Seametrics Modbus Interface Description manual for instructions). The TXD connection is the transmitted data output from the meter and RXD is the received data input to the meter. See Seametric's Modbus Interface Description, LT-103393 (available at www.seametrics.com) for supported Modbus message protocol and electrical interface specifications.

Digital Output (High Frequency) Configuration. These outputs are electrically similar to the Pulse Output described above except they are capable of output frequencies up to 10kHz. The frequency output scaling can be set by the user via the SETF tab on the meter's setup menus. Selections are: 500Hz and 1, 2, 5 and 10 KHz at maximum flow rate.

DOUT1 Pulses in forward direction

DOUT2 Pulses in reverse direction

K-Factors for High Speed Digital Output (High Frequency)

	SETF (Hz)				
Size	**500**	**1K**	**2K**	**5K**	**10K**
3"	41.55	83.10	166.2	415.51	831.02
4"	23.35	46.69	93.39	233.5	466.9
6"	10.38	20.75	41.51	103.8	207.5
8"	5.837	11.67	23.35	58.37	116.7
10"	3.736	7.471	14.94	37.36	74.71
12"	2.594	5.188	10.38	25.94	51.88

Changing Flow Meter Settings

Home Screen and General Navigation

The HOME Screen displays flow volume, direction of the flow total and flow RATE along with status conditions such as Empty Pipe. Two buttons below the LCD display are used to access menu screens for viewing and changing meter setup parameters.

These two buttons are light sensors which can detect when a finger is covering them and activate upon release. Only three button touch actions are needed to control navigation through the menus, settings changes and back to the home screen.

HORIZONTAL SCROLLING:
Tap right button to scroll horizontally through menu tabs or move horizontally within a tab dialog when applicable.

SELECT:
Tap left button to change a highlighted item within a tab dialog.

ENTER/EXIT:
Hold left button while tapping right button once to enter or exit a tab dialog or to navigate between the HOME and other menu screens.

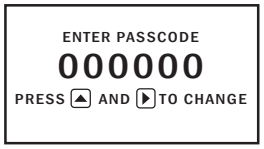
Changing Total Direction/Resetting Batch Totalizers

On the Main screen, hold ▶ and tap ▲ 5 times to scroll through the total direction options. Release ▶ to select a total direction.

Once BATCH FORWARD or BATCH REVERSE is selcted, tap ▶ four times to reset batch totalizer.

Entering Menu System

To enter the Menu System perform the hold and tap sequence. The Passcode entry screen will display. The default passcode is 000000. If a different passcode has previously been set, use the ▲ and ▶ to enter that passcode. In either case, hold and tap again to move into the menu system. (*If you enter the wrong passcode, hold and tap again to return to the previous screen. See page 21 for information on how to change a passcode.)*

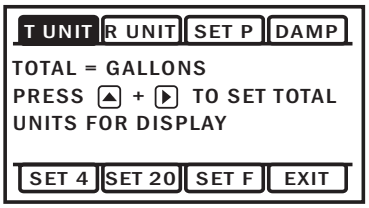


Making Selections

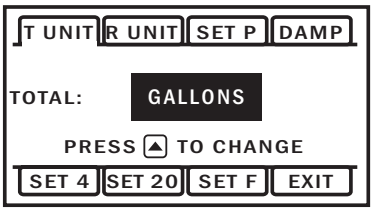
Once in the Menu System, move from tab to tab by tapping the right button. (See the next page for details on the various available tabs.)

Select the parameter. In the screen for the highlighted tab you will see the current parameter value for that tab. Tapping the right button, move to the tab for the parameter you want to change.

In this example, the first line indicates that the current unit for the TOTAL is GALLONS. The next two lines tell you what to do next.



If you would like to change the TOTAL units, just perform the hold and tap sequence to bring up a screen to change the setting.



Select a new setting. Select the new setting by scrolling through a list of selections as in the screen illustration below by tapping the left button to find a different TOTAL unit.

Accept changes. To accept any changes you have made, perform the hold and tap sequence.

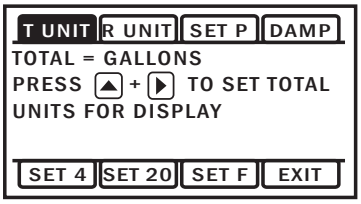
When finished making changes. When you are finished making changes, move to the EXIT tab using the right button.

To return to the HOME screen, perform the hold and tap sequence.

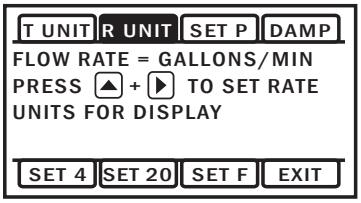
Standard Menu Options

Note: Available options will depend on specific meter configuration. Not all options are available on all meters.
Options not ordered with your meter will not appear on the meter menu.

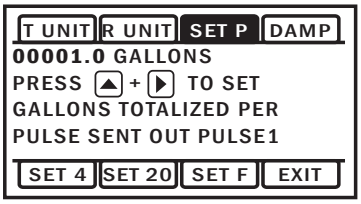
T UNIT
View or change TOTAL volume units



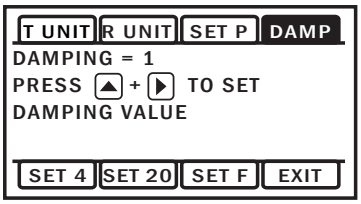
R UNIT
View or change flow RATE units



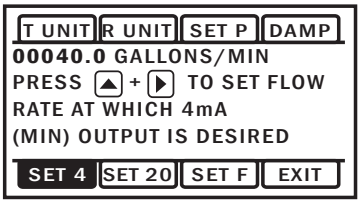
SET P
View or change pulse output scaling



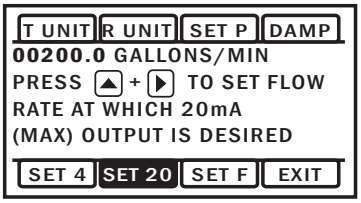
DAMP
View or change # of samples for rolling average.



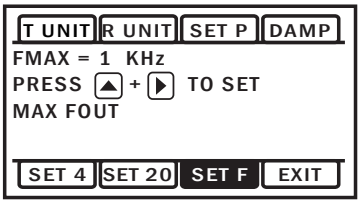
SET 4
View or change flow rate corresponding to 4mA.



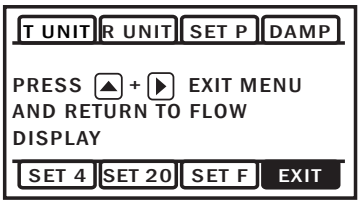
SET 20
View or change flow rate corresponding to 20mA.



SET F
View or change high frequency output scaling.



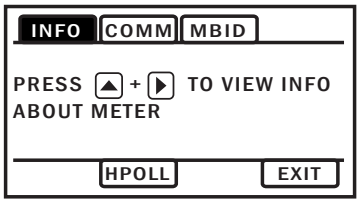
EXIT
Return to HOME SCREEN or enter SUBMENU



Special SUBMENU for Further Options

The EXIT tab in the MAIN MENU has a second function. If, instead of using the hold and tap sequence to return to the HOME screen, you tap ▲ five times, you will be redirected to a SUBMENU screen from which you can access several more options.

Navigation in this SUBMENU is the same as for the MAIN MENU. Whenever you wish, go to the EXIT tab in the SUBMENU and perform the hold and tap sequence to return to the MAIN MENU.



Sub-Menu

INFO: Meter model number, serial number, and firmware version.

COMM: Modbus® baud rate and parity.

MBID: Modbus® address

EXIT: Return to MAIN MENU.

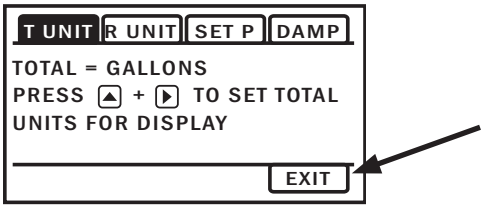
To Change a Passcode and Decimal Places

The iMAG has a passcode system for restricting access to the menus. The iMAG comes from the factory with the passcode set to 000000. When a user attempts to enter the menu system (see details on page 19), the passcode entry screen will be displayed.

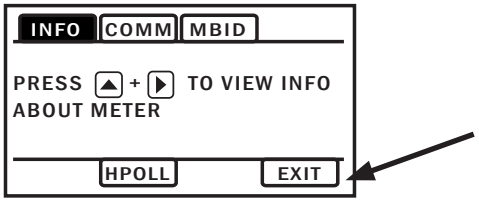
The default passcode is 000000. If a different passcode has previously been set, then the user must enter that passcode at this time. After entering the passcode, or leaving it at 000000 if using the default passcode, the user does the tap and hold sequence to move into the menu system.

To change the passcode, you must use the THIRD MENU screen. Access the THIRD MENU screen as follows:

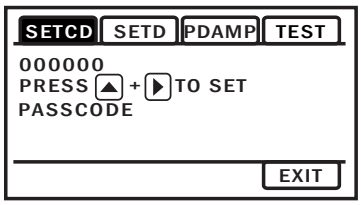
- Enter the main menu system, as described above.



- On the main menu, tab over to the EXIT tab and tap the up arrow five times. A SUBMENU screen will display.



- On the SUBMENU screen tab over to the EXIT tab and tap the up arrow five times. The THIRD MENU screen will display.



- To set the passcode, hold and tap and then use the ▲ and ▶ to enter the new code.
- Hold and tap again to return to the THIRD MENU screen.
- Tab to EXIT, and then hold and tap to return to the SUBMENU.

To change the number of decimal places in the total

- To set the decimal point, hold and tap on SETD and then use the ▶ to move the decimal point.
- Hold and tap again to return to the THIRD MENU screen.
- Tab to EXIT, and then hold and tap to return to the SUBMENU.
-

PLMIN

PLMIN shows the minimum degree of stability required to activate the DAMP filter. 10 would indicate that meter readings that jump more than +/- 90% would not be filtered. Zero indicates that the filters will always be applied.

TEST

TEST allows the user to initiate a fully functional, artificial flow rate for the purpose of testing other connected equipment. When TEST is applied, all features of the meter will function at the stated flow rate (in gallons per second).

For TEST to function, the meter must be filled (not EMPTY PIPE).

To enter a value into the TEST feature, navigate to the TEST tab and enter a flow rate value in the VAL screen (in gallons per second only,) then ▶ to the VAL box and ▲ to the ON screen. This will initiate the TEST feature. The next ▲ would bring you to the OFF screen, but you can 'hold and tap' the arrows to return you to the sub menu while the feature operates.

After use, the TEST feature must be turned OFF. If the TEST feature is not turned OFF, the stated static flow rate (in gallons per second) will be shown any time the meter is full or in a flowing condition. Flow values recorded by the meter while the TEST feature is operating are permanently recorded in the displayed TOTAL. It may be useful to note that these values are only written to permanent memory every 15 minutes and cycling all power within this 15 minute time frame will return the meter to its previous total.

Power Indicators

A power indicator is displayed in the lower left of the main display window.

Any meter powered from an external power source will display a power plug icon when running on external power. If the connection to external power is lost, the meter will switch to the backup battery and the power icon will switch to a battery symbol.

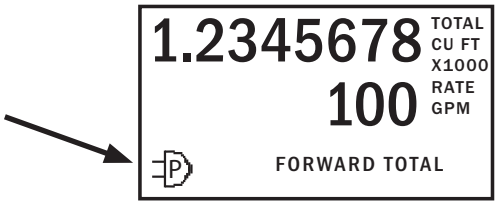
OK on the battery indicator means battery voltage is above 6.4 volts.

LO on the battery indicator means the battery is low and should be replaced soon.

Being powered by external DC or internal AC

Being powered by battery - voltage is sufficient

Being powered by battery - voltage is low



If display reads, 'BATT END' replace battery immediately.

Troubleshooting

Problem	Probable Causes	Things to try...
Blank Display	Faulty wiring from power source to meter	Check for incorrect wiring. Measure voltage with DMM where red and black wires connect to terminal block TB1 on back side of display. Verify correct polarity and confirm that voltage is steady and between 9Vdc and 32Vdc
	Backup battery has not been plugged in	Plug in the battery
	Dead backup battery	Replace battery
Flow rate reading fluctuates excessively when flow is unchanging	Excessively turbulent or unsteady flow due to partially closed valves or other flow obstructions	Eliminate or minimize causes of flow disturbances or increase meter damping
	Pipe not full	Provide back pressure or other means to ensure pipe is filled
	Pulsing flow due to combining multiple upstream flow sources	Move connection point further upstream
	Insufficient mixing of upstream chemicals	Move chemical injection downstream from meter
	Low fluid conductivity < 20 µS/cm	Replace with different type of meter
	Noisy electrical environment	Improve grounding at meter and nearby potentially noisy electrical equipment. Increase distance between meter and electrical noise sources.
	Defective or noisy AC switching power supply	Replace power supply
Flow Rate appears correct but pulse/ frequency output is low, erratic or absent	Wiring incorrect	Compare wiring with appropriate wiring recommendations
	External device input impedance too low	Use sourcing rather than sinking interface connection
	Cable too long	Reduce interface pull-up resistance
Flow Rate appears correct but pulse/frequency output is erratic and/or too high	Electrical noise sources interfering with pulse frequency signal	Isolate, remove or reduce noise sources. Move meter control cable away from noise sources. Increase pulse damp setting (PDAMP)
	Wrong type of cable	Use only twisted pair cable and ensure both signal wires are on same twisted pair
	Grounding problem	Improve or try different grounding method

Error Messages

Under certain conditions an error message may be displayed.

Message	Description	Notes
INIT	Initialization is occurring during power up.	
EMPTY PIPE	Fluid is not detected between the sensing electrodes.	Loop output = 22.8mA
LO in battery icon	Battery is getting low, replace soon. Meter still functions.	Above 6.4V, OK appears in icon
BATT END	Battery is very low (approx. 6.1V). Totalizer stops updating.	Loop output = 4mA
LOW VOLT	Incoming external power is very low and backup battery is dead or not connected	Loop output = 4mA
COIL FAIL	Coil current too high or too low (short or open).	Loop output = 22.8mA
COMM FAIL	Communication between transmitter and sensor board fails.	Loop output = 22.8mA
OVER RANGE	Rate exceeds number of digits that can be displayed. Adjust units.	Loop output = 4mA

The limited warranty set forth below is given by Seametrics, with respect to Seametrics brand products purchased in the United States of America.

Seametrics warrants that products manufactured by Seametrics, when delivered to you in new condition in their original containers and properly installed, shall be free from defects in material and workmanship. **Seametrics products are warranted against defects for a minimum period of two (2) years from date of installation, unless otherwise specified, with proof of install date. If no proof of install date can be provided, warranty period will be two (2) years from date of shipment from Seametrics, as defined on Seametrics' invoice.** Seametrics' obligation under this warranty shall be limited to replacing or repairing the part or parts, or, at Seametrics' option, the products, which prove defective in material or workmanship. The following are the terms of Seametrics' limited warranty:

a. Buyer must give Seametrics prompt notice of any defect or failure and satisfactory proof thereof.
b. Any defective part or parts must be returned to Seametrics' factory or to an authorized service center for inspection.
c. Buyer will prepay all freight charges to return any products to Seametrics' factory, or another repair facility. as designated by Seametrics.
d. Defective products, or parts thereof, which are returned to Seametrics and proved to be defective upon inspection, will be repaired to factory specifications.
e. Seametrics will deliver repaired products or replacements for defective products to the buyer (ground freight prepaid) to the destination provided in the original order.
f. Products returned to Seametrics for which Seametrics provides replacement under this warranty shall become the property of Seametrics.
g. This limited warranty covers all defects encountered in normal use of Seametrics products, and does not apply to the following cases:
    i. Loss of or damage to Seametrics product due to abuse, mishandling, or improper packaging by buyer
    ii. Failure to follow operating, maintenance, or environmental instructions prescribed in Seametrics' instruction manual
    iii. Products not used for their intended purpose
    iv. Alterations to the product, purposeful or accidental
    v. Electrical current fluctuations
    vi. Corrosion due to aggressive materials not approved for your specific product
    vii. Mishandling, or misapplication of Seametrics products
    viii. Products or parts that are typically consumed during normal operation
    ix. Use of parts or supplies (other than those sold by Seametrics) which cause damage to the products, or cause abnormally frequent service calls or service problems
h. A new warranty period will be established for repaired products, or products replaced during the original warranty period.
i. In the event that equipment is altered or repaired by the buyer without prior written approval by Seametrics, all warranties are void. Damage caused by equipment or accessories not manufactured by Seametrics may void the product's warranty.
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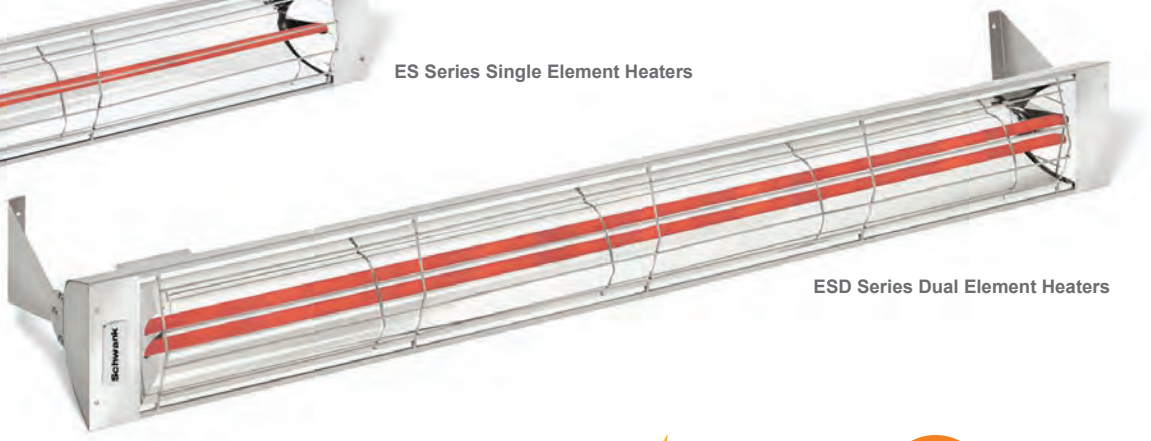
INFRARED HEATER

patioSchwank

electricSchwank

Electric Indoor/Outdoor Overhead Patio Heaters

ES Series Single Element Heaters



ESD Series Dual Element Heaters

Heating Models and Capacities

With smaller, sleeker profiles, **electricSchwank** heating systems offer a streamlined, yet effective heating solution for any indoor or outdoor space. They are available in a range of sizes, wattages and voltages that can provide appropriate warmth to any indoor or outdoor area, from a small room to an expansive open-air commercial space.

Multiple Voltages

Multiple Colors

Flush Mount

One Bulb, or Two

Features

- Models range from 500 to 6000 Watts
- Available in 120V, 208V, and 240V options for a wide range of applications.
- Flush Mount option to make heater blend in with any structure
- Single stage or 2 stage option for a high or low heat setting
- Stainless steel finish – custom colors available in black, white, beige, and mineral bronze

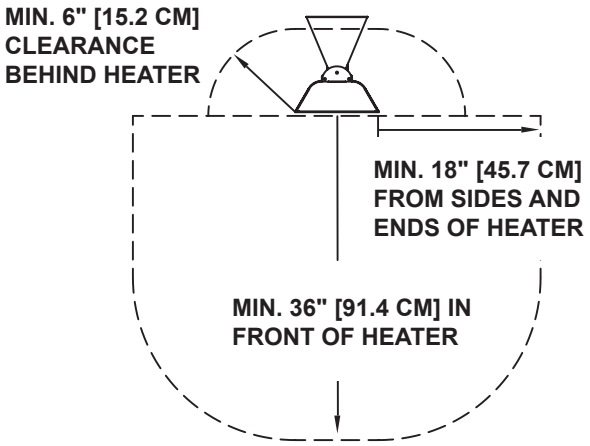
Perfect for:

RESTAURANTS NIGHTCLUBS HOTELS

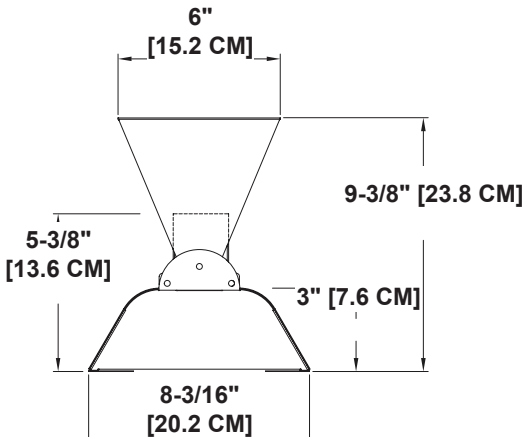
electricSchwank – Technical Specifications & Benefits

Information below is intended only as a reference and should not be used when installing equipment. Please ensure you locate the most recent instruction manual for accurate and up to date information.

Clearances to Combustibles



Dimensions



Specifications

MODEL	WATTS	LENGTH	VOLTS/AMPS				PHASE	SHIP WGT.
ES-519	500	19.5"	120/4.2				Single	10
ES-719	750	19.5"	120/6.3				Single	10
ES-1033	1000	33"	120/8.3				Single	12
ES-1533	1500	33"	120/12.5	208/7	240/6.3		Single	12
ES-2039	2000	39"	208/10	240/8.3			Single	13
ES-2539	2500	39"	208/12	240/10.4			Single	13
ESD-3033	3000	33"	208/14	240/12.5			Single	13
ES-3061	3000	61.25"	208/14	240/12.5			Single	20
ESD-4039	4000	39"	208/19	240/16.7			Single	14
ES-4061	4000	61.25"	208/19	240/16.7			Single	20
ESD-5039	5000	39"	208/24	240/20.8			Single	14
ESD-6061	6000	61.25"	208/28.8	240/25			Single	21

Heater Controls

On/Off Control

- Designed for use with single bulb heaters
- Available in flush mount or surface mount options
- Available with no cover, weatherproof cover, or weatherproof box
- Range 120/277 VAC [20 amps max per switch]

Variable Control

- Designed for use with single bulb heaters up to 3000 watts [maximum 15 amps]
- Variable control to regulate heat output
- Each heater must have its own input regulator
- Available in flush mount or surface mount options
- Available with no cover, weatherproof cover, or weatherproof box
- Available for 240 V and 120V heaters only

2-Stage Control

- Designed for use with dual bulb heaters
- 2-stage option for high or low heat setting
- Range 120/277 VAC [20 amps max per switch]
- Available in flush mount or surface mount options
- Available with no cover, weatherproof cover, or weatherproof box

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M052016 RL: v1.3 RD: Dec-2016

VFD

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SMVector | Our promise

Commitment to Value

The finest product at the best price is serious business. It takes continuous life cycle management to achieve this goal. We are always investigating techniques to improve efficiency and take advantage of the latest microprocessor and power module technology. When we achieve efficiency gains or material cost reductions, we pass those savings on to our customers. This simple philosophy has permitted us to build and maintain a very loyal base of customers.

Commitment to Quality

From product design to manufacture, service and training, quality is at the foundation of Lenze Americas corporate philosophy. A quality product is built of superior materials by highly skilled personnel equipped with state-of-the art instruments. And a quality product is backed by expert training, knowledgeable sales representatives and experienced repair personnel. Continuous life cycle improvement fueled by our pledge to our Customers drives our technology forward. We feel so strongly about quality that each SMVector is backed with a two-year warranty.

Commitment to Innovation

We pride ourselves on delivering products to the market that are designed to meet specific customer needs. Our portfolio of innovative products is broad and covers very simple variable speed applications up through complex motion control. Each product, including the SMVector, is positioned so our customers pay only for the level of technology necessary for their application.

Commitment to Simplicity

One of the cornerstones of our design philosophy is to make our products simple to use. Technology only benefits the user if it can be easily understood and applied. The SMVector's intuitive display and EPM technology dramatically simplifies installation, commissioning and operation for our customers.

Commitment to Performance

The SMVector is in a class by itself when it comes to performance. At the heart of the SMV are sophisticated vector algorithms that achieve new heights in torque production and speed control. This technology breakthrough allows our customers to cover a full range of applications from simple speed control through advanced torque and process control with the same product.

Our Promise

At Lenze Americas it is not good enough to deliver part of a promise. Our products deliver the entire package; Value, Quality, Innovation, Simplicity and Performance.

Lenze

Lenze Americas N.A. Headquarters, Uxbridge, MA

For Sales and Support, Contact Walker EMD • Toll-free: (800) 876-4444 • Tel: (203) 426-7700 • Fax: (203) 426-7800 • www.walkeremd.com

SMVector | Features and Benefits:

The SMVector continues our price leadership tradition in the highly competitive AC drive market. Its performance and flexibility make it an attractive solution for a broad range of applications including:

- Food processing machinery
- Packaging machinery
- Material handling/conveying systems
- HVAC systems

The SMVector makes good its promise of price leadership in delivering unparalleled performance and simplicity. The SMVector is the right choice when you need it all – performance, power, packaging and intuitive programming.

SMV NEMA 4X (IP65)

SMV NEMA 1 (IP31)

Two Year Warranty

Superior Performance

- Modes of Operation:
  - V/Hz (Constant and Variable)
  - Enhanced V/Hz (Constant and Variable)
  - Vector Speed Control
  - Vector Torque Control
- Dynamic Torque Response
- Sophisticated Auto-tuning (Motor Calibration)
- Impressive Low Speed Operation
- Sequencer with 16 Programmable Segments

Flexible Power Ranges

- International Voltages:
  - 120/240V, 1Ø (up to 1.5 Hp)
  - 200/240V, 1/3Ø (up to 3 Hp)
  - 200/240V, 3Ø (up to 20 Hp)
  - 400/480V, 3Ø (up to 60 Hp)
  - 480/600V, 3Ø (up to 60 Hp)

Industrial Grade Packaging

- NEMA Type 1 (IP31) Enclosure
- NEMA 4X (IP65) Indoor Only
- NEMA 4X (IP65) Indoor/Outdoor

Simplicity

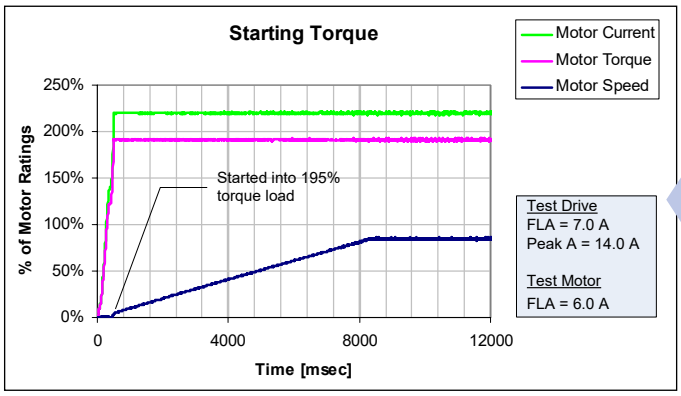
- Intuitive User Interface
- Electronic Memory Module (EPM)
- Optional Disconnect Switch (NEMA 4X only)
- Optional Potentiometer Switch (NEMA 4X only)

EPM | Just think of it as ... Ever Present Memory

When you need to program or replace a drive, whether it is 1 or 100 drives, the Electronic Programming Module (EPM) gets it done simply, quickly and most important, accurately. There is no hassle of reconfiguring each parameter or reseting the drive to factory or user default settings.

When drive reset is necessary, reset to factory default or customer settings in seconds with the EPM. When the EPM equipped drive is used on a line containing multiple drives with the identical setup, it takes just minutes to program the entire line. And EPMs can be replaced with or without power connected. When a drive must be replaced, the parameter configuration is not lost, simply plug in the pre-programmed EPM. You are good to go with Ever Present Memory.

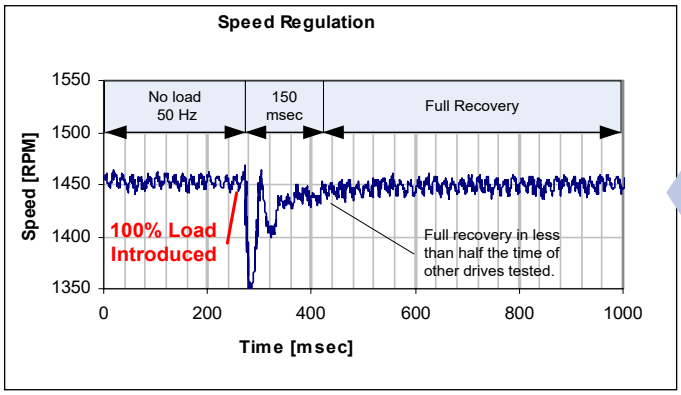
SMVector | Performance



Exceptional Starting Torque

Overpower demanding applications

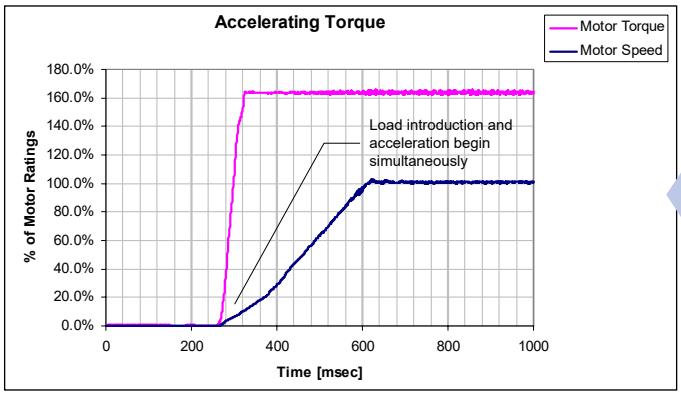
The SMVector is peerless in controlling the motor's ability to convert current into torque. In this example, the SMVector is started into a stiff 195% torque load. Not only does the motor start the load, but it also delivers a full 195% torque while accelerating to 50 Hz in 8 seconds.



Dynamic Speed Regulation

Recovery from 100% shock load in 0.15 seconds

Shock loads are no match for the SMVector. Here an instantaneous 100% load is dealt with in a mere 0.15 seconds. Remarkably, this level of speed regulation is achieved open loop without the benefit of a feedback device.



Quick Acceleration

0 to 100 in 0.33 seconds!

Motors controlled by the SMVector benefit from a sophisticated motor control algorithm that drives motor performance to maximum levels. In this application the the motor is able to drive a 165% torque load while accelerating from 0 to 100% speed in an impressive 0.33 seconds.

The SMV Thrives in Harsh Environments

Plastic Housing/Black Anodized Heatsink
- Light weight and corrosion resistant
- Available for indoor and indoor/outdoor use

Totally Enclosed Non-Ventilating Housing

Compact Enclosures

Optional Potentiometer

SMV NEMA 4X (IP65)
With Disconnect and Potentiometer

Optional Disconnect Switch
- Available on certain models

High Pressure Washdown Version
- Can be ordered without keypad and display

Optional Integrated EMC Filters
- Meets CE regulations

SMVector | Specifications

World Class Control

Modes of Operation
- Open Loop Flux Vector, Speed or Torque Control with/without Auto Tuning
- V/Hz (Constant or Variable)
- Base Frequency Adjustable to Motor Specs
- Enhanced V/Hz with Auto-tuning

Acceleration/Deceleration Profiles
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type
- Auxiliary Ramp(or Coast)-to-Stop

Fixed Accel Boost for Improved Starting

500 Hz Output Frequency

High Carrier (PWM Sine-Coded) Frequency
- 4, 6, 8, 10 kHz

Universal Logic Assertion (Selectable)
- Positive or Negative Logic Input
- Digital Reference Available

Braking Functions
- DC Injection Braking
- Optional Dynamic Braking
- Flux Braking w/ Adjustable Flux Level & Decel Time

Speed Commands
- Keypad, Potentiometer
- Jog, 8 Preset Speeds
- Floating Point Control
- Sequencer, 16 Segments
- Voltage: Scalable 0 –10 VDC
- Current: Scalable 4 – 20 mA

Process Control
- PID Modes: Direct and Reverse Acting
- PID Sleep Mode w/ Adjustable Recovery Threshold
- Analog Output (Speed, Load, Torque, kW)
- Network Speed (Baud Rate)
- Terminal and Keypad Status
- Elapsed Run or Power On Time (Hours)

Status Outputs
- Programmable Form “A” Relay Output
- Programmable Open Collector Output
- Scalable 0-10 VDC / 2-10 VDC Analog Output
- 4-20mA w/500 Ohm Total Impedance

Environment

Ambient Temperature

-10 to 55°C

Derate 2.5% per °C Above 40°C

Comprehensive Diagnostic Tools

Real Time Monitoring
- 8 Register Fault History
- Software Version
- Drive Network ID
- DC Bus Voltage (V)
- Motor Voltage (V)
- Output Current (%)
- Motor Current (A)
- Motor Torque (%)
- Power (kW)
- Energy Consumption (kWh)
- Heatsink Temperature (°C)
- 0 – 10 VDC Input (User Defined)
- 4 – 20 mA Input (User Defined)
- PID Feedback (User Defined)

Vigilant System Protection

Voltage Monitoring
- Low and High DC Bus V Protection
- Low Line V Compensation

Current Monitoring
- Motor Overload Protection
- Current Limiting Safeguard
- Ground Fault
- Short Circuit Protection

Four ReStarts
- Three Flying and One Auto
- User Enabled

Loss of Follower Management
- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

Over Temperature Protection

International Voltages

+10/-15% Tolerance

120/240V, 1Ø

200/240V, 1 or 3Ø

200/240V, 3Ø

400/480V, 3Ø

480/600V, 3Ø

Global Standards

UL GOST

cUL C-Tick

CE Low Voltage (EN61800-5-1)

CE EMC (EN61800-3) with optional EMC filter

Simple Six Button Programming

Start

Stop

Forward/Reverse

Scroll Up

Scroll Down

Enter/Mode

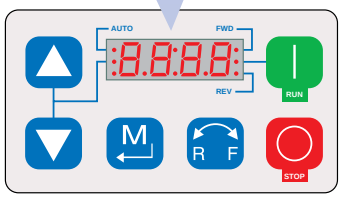
Informative LED Display

Vivid Illumination

Easily Read from a Distance

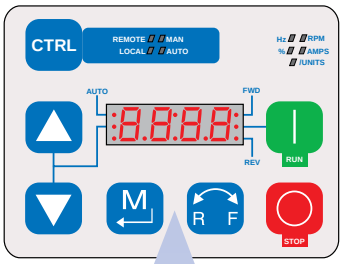
Five Status LEDs
- Run
- Automatic Speed mode
- Manual Speed Mode
- Forward Rotation
- Reverse Rotation

Status Display
- Motor Status
- Fault Management
- Operational Information



NEMA1 (Up to 10HP), NEMA4/4x Keypad

NEMA1 15HP (and greater) Keypad

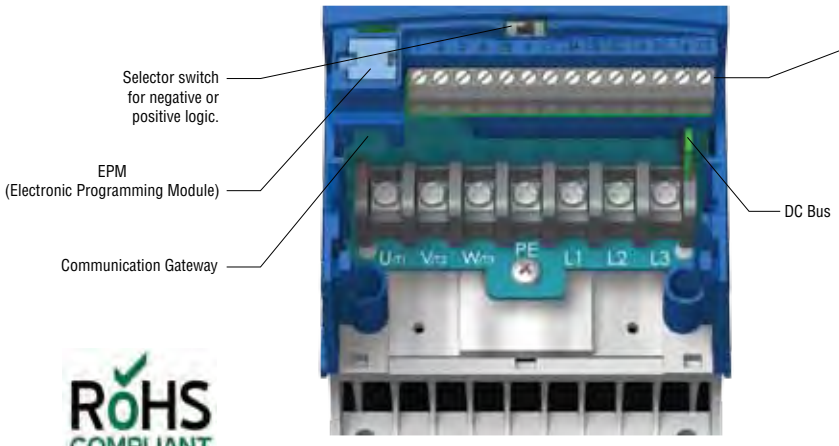


Additional CTRL Button

Switch between control modes
- Local-Manual
- Local-Auto
- Remote-Manual
- Remote-Auto

Additional LED Indicators

Define the units being displayed
- Hz
- RPM
- %
- Amps
- /Units



Removable terminal cover and steel conduit plate (not shown).
Easy access for control & power wiring.
An extra IP21 finger guard ships with every drive.

Control Terminals

Digital Inputs
- Dedicated Start/Stop
- (3) Programmable

Digital Outputs
- Form “A” Relay
- Open Collector

Analog Inputs
- 0 - 10 VDC
- 4 - 20 mA

Analog Outputs
- 0 - 10 VDC/2 - 10 VDC

Power Supplies
- 10 VDC Potentiometer Ref
- 12 VDC, 20 mA Digital Input Ref or 0VDC Common
- 12 VDC, 50 mA Supply

Common

Additional Control Terminals

(NEMA1, 15HP and greater models)

1 Programmable Digital Input

1 Common

RS-485 Modbus Communications
- TXA
- TXB

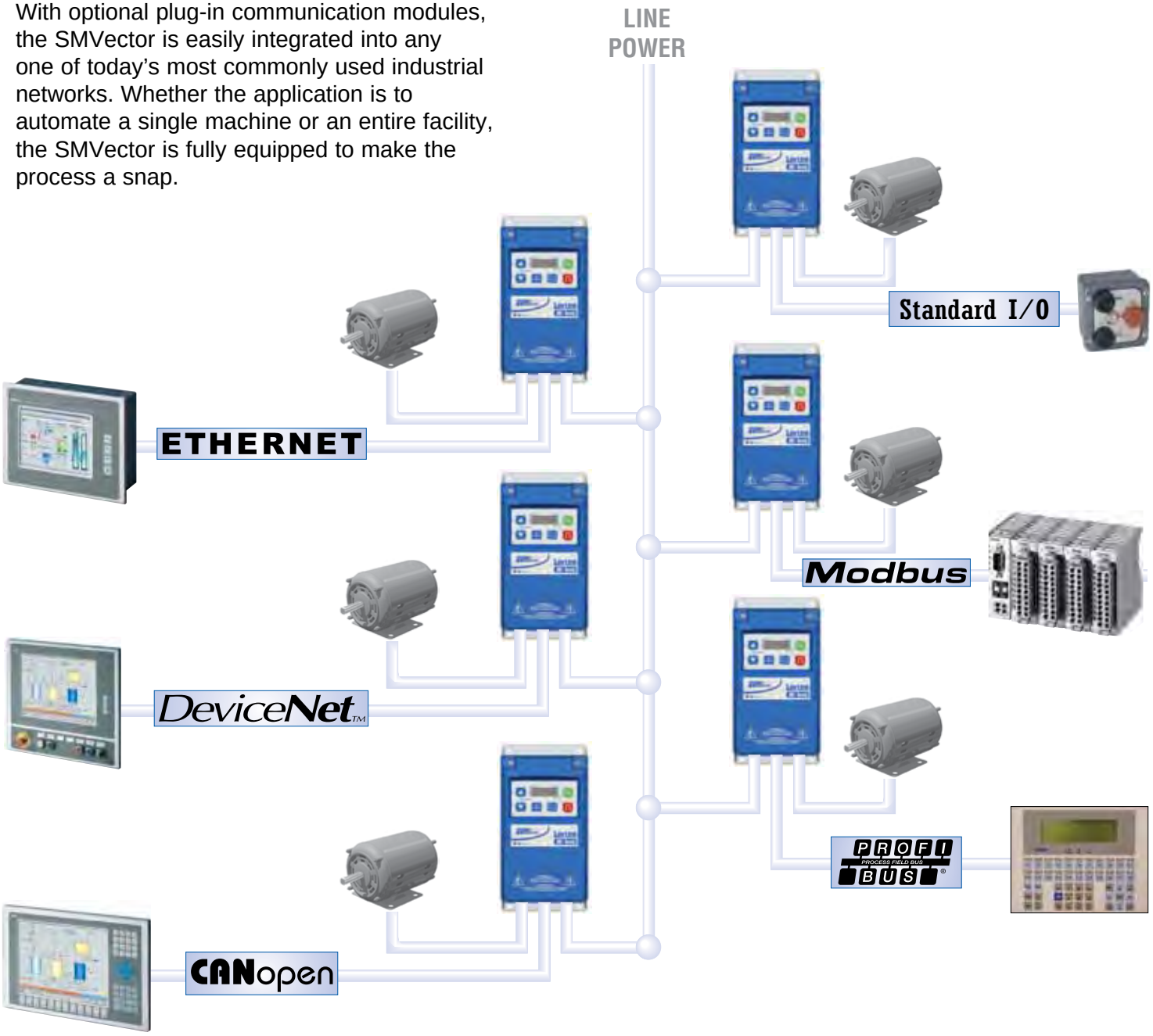
Lenze AC Tech

RoHS COMPLIANT

For Sales and Support, Contact Walker EMD • Toll-free: (800) 876-4444 • Tel: (203) 426-7700 • Fax: (203) 426-7800 • www.walkeremd.com

SMVector | Connectivity

With optional plug-in communication modules, the SMVector is easily integrated into any one of today's most commonly used industrial networks. Whether the application is to automate a single machine or an entire facility, the SMVector is fully equipped to make the process a snap.



NOTE: Communication options are available in NEMA 1 (IP31) and NEMA 4X (IP65) models.

Communication Module

Setting up a drive in a network has never been so simple. Order the SMVector and your choice of communication module. Simply snap the communication module into the terminal cover and the drive is ready to connect to the network. Or if the SMVector is already installed it can be easily upgraded in the field.

Lenze AC Tech

SMVector | Ratings & Dimensions

120/240V* - 1Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C]/Outdoor[E]		NEMA4X w/Disconnect -Indoor	
Hp	kW	Model	Size	Model	Size	Model	Size
0.33	0.25	ESV251N01SXB	G1	N/A			
0.5	0.37	ESV371N01SXB	G1	ESV371N01SX[C] or [E]	R1	ESV371N01SMC	AA1
1	0.75	ESV751N01SXB	G1	ESV751N01SX[C] or [E]	R1	ESV751N01SMC	AA1
1.5	1.1	ESV112N01SXB	G2	ESV112N01SX[C] or [E]	R2	ESV112N01SMC	AA2

*120/240V models provide 0-230V output even with 120V input applied.

200/240V - 1 or 3Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C]/Outdoor[E]*		NEMA4X w/Disconnect - Indoor**	
Hp	kW	Model	Size	Model	Size	Model	Size
0.33	0.25	ESV251N02SXB***	G1	N/A			
0.5	0.37	ESV371N02YXB	G1	ESV371N02YX[C] or [E]	R1	ESV371N02YMC	AA1
1	0.75	ESV751N02YXB	G1	ESV751N02YX[C] or [E]	R1	ESV751N02YMC	AA1
1.5	1.1	ESV112N02YXB	G2	ESV112N02YX[C] or [E]	R2	ESV112N02YMC	AA2
2	1.5	ESV152N02YXB	G2	ESV152N02YX[C] or [E]	R2	ESV152N02YMC	AA2
3	2.2	ESV222N02YXB	G2	ESV222N02YX[C] or [E]	S1	ESV222N02YMC	AD1

*Filter versions are also available in 1-phase: Replace the "YX" in the Model Part Number with an "SF".
**Filter versions are also available in 1-phase: Replace the "YM" in the Model Part Number with an "SL".
***Model ESV251N02SXB is single-phase input only.

200/240V - 3Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C or D]/Outdoor[E or F]		NEMA4X w/Disconnect - Indoor	
Hp	kW	Model	Size	Model	Size	Model	Size
1.5	1.1	ESV112N02TXB	G2	N/A			
2	1.5	ESV152N02TXB	G2	N/A			
3	2.2	ESV222N02TXB	G2	N/A			
5	4	ESV402N02TXB	G3	ESV402N02TX[C] or [E]	V1	ESV402N02TMC	AC1
7.5	5.5	ESV552N02TXB	H1	ESV552N02TX[D] or [F]	T1	ESV552N02TMD	AB1
10	7.5	ESV752N02TXB	H1	ESV752N02TX[D] or [F]	T1	ESV752N02TMD	AB1
15	11	ESV113N02TXB	J1	ESV113N02TX[D] or [F]	W1	ESV113N02TMD	AF1
20	15	ESV153N02TXB	J1	ESV153N02TX[D] or [F]	W1	ESV153N02TMD	AF1

400/480V - 3Ø Input (3Ø Output)

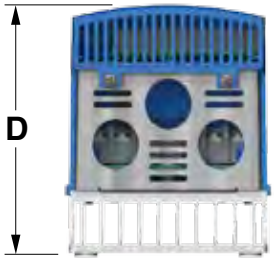
Power		NEMA1		NEMA4X - Indoor [C or D]/Outdoor[E or F]*		NEMA4X w/Disconnect - Indoor**	
Hp	kW	Model	Size	Model	Size	Model	Size
0.5	0.37	ESV371N04TXB	G1	ESV371N04TX[C] or [E]	R1	ESV371N04TMC	AA1
1	0.75	ESV751N04TXB	G1	ESV751N04TX[C] or [E]	R1	ESV751N04TMC	AA1
1.5	1.1	ESV112N04TXB	G2	ESV112N04TX[C] or [E]	R2	ESV112N04TMC	AA2
2	1.5	ESV152N04TXB	G2	ESV152N04TX[C] or [E]	R2	ESV152N04TMC	AA2
3	2.2	ESV222N04TXB	G2	ESV222N04TX[C] or [E]	R2	ESV222N04TMC	AA2
5	4	ESV402N04TXB	G3	ESV402N04TX[C] or [E]	V1	ESV402N04TMC	AC1
7.5	5.5	ESV552N04TXB	H1	ESV552N04TX[C] or [E]	V1	ESV552N04TMC	AC1
10	7.5	ESV752N04TXB	H1	ESV752N04TX[D] or [F]	T1	ESV752N04TMD	AB1
15	11	ESV113N04TXB	J1	ESV113N04TX[D] or [F]	W1	ESV113N04TMD	AE1
20	15	ESV153N04TXB	J1	ESV153N04TX[D] or [F]	W1	ESV153N04TMD	AE1
25	18.5	ESV183N04TXB	J1	ESV183N04TX[D] or [F]	W1	ESV183N04TMD	AF1
30	22	ESV223N04TXB	J1	ESV223N04TX[D] or [F]	X1	ESV223N04TMD	AF1
40	30	ESV303N04TXB	K1	N/A			
50	37.5	ESV373N04TXB	K2	N/A			
60	45	ESV453N04TXB	K3	N/A			

*Filter versions are also available in 1-phase: Replace the "X" in the Model Part Number with an "F".
**Filter versions are also available in 1-phase: Replace the "M" in the Model Part Number with an "L".

600V - 3Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C or D]/Outdoor[E or F]		NEMA4X w/Disconnect - Indoor	
Hp	kW	Model	Size	Model	Size	Model	Size
1	0.75	ESV751N06TXB	G1	ESV751N06TX[C] or [E]	R1	ESV751N06TMC	AA1
2	1.5	ESV152N06TXB	G2	ESV152N06TX[C] or [E]	R2	ESV152N06TMC	AA2
3	2.2	ESV222N06TXB	G2	ESV222N06TX[C] or [E]	R2	ESV222N06TMC	AA2
5	4	ESV402N06TXB	G3	ESV402N06TX[C] or [E]	V1	ESV402N06TMC	AC1
7.5	5.5	ESV552N06TXB	H1	ESV552N06TX[C] or [E]	V1	ESV552N06TMC	AC1
10	7.5	ESV752N06TXB	H1	ESV752N06TX[D] or [F]	T1	ESV752N06TMD	AB1
15	11	ESV113N06TXB	J1	ESV113N06TX[D] or [F]	W1	ESV113N06TMD	AE1
20	15	ESV153N06TXB	J1	ESV153N06TX[D] or [F]	W1	ESV153N06TMD	AE1
25	18.5	ESV183N06TXB	J1	ESV183N06TX[D] or [F]	W1	ESV183N06TMD	AF1
30	22	ESV223N06TXB	J1	ESV223N06TX[D] or [F]	X1	ESV223N06TMD	AF1
40	30	ESV303N06TXB	K1	N/A			
50	37.5	ESV373N06TXB	K2	N/A			
60	45	ESV453N06TXB	K3	N/A			

SMV NEMA 1 (IP31)



Bottom Entry with NEMA 1 Steel Conduit Plate

Bottom Entry with IP31 Finger Guard

Dimensions

	H		W		D	
	in.	*mm*	*in.*	*mm*	*in.*	*mm*
G1	7.50	190	3.90	99	4.40	111
G2	7.60	191	3.90	99	5.50	138
G3	7.60	191	3.90	99	5.80	147
H1	9.90	250	5.20	130	6.30	160
J1	12.50	318	7.00	176	8.10	205
K1	14.19	360	8.72	221	10.07	256
K2	17.19	436	8.72	221	10.07	256
K3	20.19	513	8.72	221	10.07	256
R1	8.00	203	6.30	160	4.50	114
R2	8.00	203	6.30	160	6.30	160
S1	8.00	203	7.10	181	6.80	172
T1	10.00	254	8.10	204	8.00	203
V1	10.00	254	9.00	228	8.00	203
W1	14.40	366	9.40	240	9.50	241
X1	18.50	470	9.40	240	9.50	241
AA1	11.00	279	6.30	160	5.40	136
AA2	11.00	279	6.30	160	7.20	182
AB1	13.00	330	8.10	204	8.90	225
AC1	13.00	330	9.00	228	9.00	226
AD1	11.00	279	7.10	181	7.70	194
AE1	14.40	366	9.40	240	10.20	259
AF1	18.50	470	9.40	240	10.20	259

The best machines and production facilities around the world use Lenze.

Positioning our Customers for Success. ***We take our Customer's requirements seriously. A new application is an opportunity to test, prove and expand our drive's capabilities while solving our Customer's motion control needs.***

Customer Service ***has always been and will always be our number one commitment. Our success depends on it.***

Driving design ***technology forward means we never stop thinking about process improvements. Did we deliver a quality product to market that meets the Customer's needs? That is the key.***

Innovation ***takes art and skill to combine what's new and what's proven to produce a product with exceptional form, fit and function.***

Lenze

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CB-SMV-1211

SMVector NEMA4X | Washdown Duty Inverter

Lenze AC Tech

RoHS COMPLIANT

World Class Control

Modes of Operation
- Open Loop Flux Vector, Speed or Torque Control
- V/Hz (Constant or Variable)
- Base Frequency Adjustable to Motor Specs
- Enhanced V/Hz with Auto-tuning

Acceleration/Deceleration Profiles
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type
- Auxiliary Ramp(or Coast)-to-Stop

Fixed Accel Boost for Improved Starting

500 Hz Output Frequency

High Carrier PWM Sine-Coded Frequency
- 4, 6, 8, 10 or 12 kHz

Universal Logic Assertion (Selectable)
- Positive or Negative Logic Input
- Digital Reference Available

Braking Functions
- DC Injection Braking
- Optional Dynamic Braking

Speed Commands
- Keypad, Potentiometer
- Jog, 8 Preset Speeds
- Floating Point Control
- Voltage: Scalable 0 –10 VDC
- Current: Scalable 4 – 20 mA

Process Control
- PID Modes: Direct and Reverse Acting
- PID Sleep Mode
- Analog Output (Speed, Load, Torque, kW)
- Network Speed (Baud Rate)
- Terminal and Keypad Status
- Elapsed Run or Power On Time (Hours)

Status Outputs
- Programmable Form “A” Relay Output
- Programmable Open Collector Output
- Scalable 0-10 VDC / 2-10 VDC Analog Output

Run Screen Display
- Multiplier: 4-20mA w/500 Ohm Total Impedance

Environment

Ambient Temperature
- -10 to 55°C @ 6 kHz
- Derate 2.5% per °C Above 40°C

Comprehensive Diagnostic Tools

Real Time Monitoring
- 8 Register Fault History
- Software Version
- Drive Network ID
- DC Bus Voltage (V)
- Motor Voltage (V)
- Output Current (%)
- Motor Current (A)
- Motor Torque (%)
- Power (kW)
- Energy Consumption (kWh)
- Heatsink Temperature (°C)
- 0 – 10 VDC Input (User Defined)
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- Parameters can be reset for 50 or 60 Hz Motors

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- Motor Overload Protection
- Current Limiting Safeguard
- Ground Fault
- Short Circuit Protection

Three ReStarts
- Two Flying and One Auto
- Password Protected

Loss of Follower Management
- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

Over Temperature Protection

International Voltages

- +10/-15% Tolerance
- 120/240V, 1Ø
- 200/240V, 1 or 3Ø
- 200/240V, 3Ø
- 400/480V, 3Ø
- 480/600V, 3Ø

Global Standards

UL GOST
cUL C-Tick
CE Low Voltage (EN61800-5-1)
CE EMC (EN61800-3) with optional EMC filter

Keypad & Display

Simple Six Button Programming
- Start
- Stop
- Forward/Reverse
- Scroll Up
- Scroll Down
- Enter/Mode

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Vivid Illumination
Easily Read from a Distance

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- Manual Speed Mode
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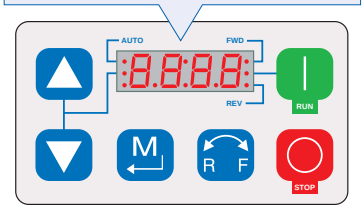
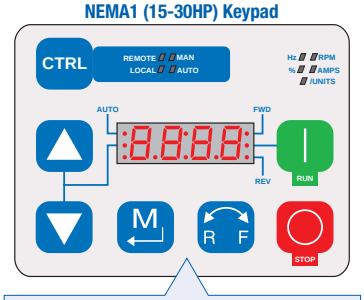


NEMA1 (Up to 10HP) Keypad

NEMA1 (15-30HP) Keypad



Additional CTRL Button

Switch between control modes
- Local-Manual
- Local Auto
- Remote-Manual
- Remote Auto

Additional LED Indicators

Define the units being displayed
- Hz
- RPM
- %
- Amps
- /Units

Control Terminals

Digital Inputs
- Dedicated Start/Stop
- (3) Programmable

Digital Outputs
- Form “A” Relay
- Open Collector

Analog Inputs
- 0 - 10 VDC
- 4 - 20 mA

Analog Outputs
- 0 - 10 VDC
- 2 - 10 VDC

Power Supplies
- 10 VDC Potentiometer Ref
- 12 VDC, 20 mA DI Ref or 0VDC Com
- 12 VDC, 50 mA Supply

Common

Additional Control Terminals (15 HP & up)

1 Programmable Digital Input
1 Common
RS-485 Modbus Communications
- TXA
- TXB

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Lenze AC Tech SMVector NEMA4X | Washdown Duty Inverter

Ratings

120/240V* - 1Ø Input (3Ø Output)

Power		Output Current	NEMA4X Indoor [C] / Outdoor [E]		NEMA4X w/Disconnect Indoor	
Hp	kW	I_N [A]	Model	Size	Model	Size
0.5	0.37	2.4	ESV371N01SX[C] or [E]	R1	ESV371N01SMC	AA1
1	0.75	4.2	ESV751N01SX[C] or [E]	R1	ESV751N01SMC	AA1
1.5	1.1	6.0	ESV112N01SX[C] or [E]	R2	ESV112N01SMC	AA2

*Output voltage will be twice line voltage when connected to a 120V source. Output voltage will not exceed line voltage when connected to a 240V source.

200/240V - 1 or 3Ø Input (3Ø Output)

Power		Output Current	NEMA4X Indoor [C] / Outdoor [E]*		NEMA4X w/Disconnect Indoor**	
Hp	kW	I_N [A]	Model	Size	Model	Size
0.5	0.37	2.4	ESV371N02YX[C] or [E]	R1	ESV371N02YMC	AA1
1	0.75	4.2	ESV751N02YX[C] or [E]	R1	ESV751N02YMC	AA1
1.5	1.1	6.0	ESV112N02YX[C] or [E]	R2	ESV112N02YMC	AA2
2	1.5	7.0	ESV152N02YX[C] or [E]	R2	ESV152N02YMC	AA2
3	2.2	9.6	ESV222N02YX[C] or [E]	S1	ESV222N02YMC	AD1

*Filter versions are also available in 1-phase: Replace the "YX" in the Model Part Number with an "SF".
**Filter versions are also available in 1-phase: Replace the "YM" in the Model Part Number with an "SL".
***Model ESV251N02SXB is single-phase input only.

200/240V - 3Ø Input (3Ø Output)

Power		Output Current	NEMA4X Indoor [C or D] / Outdoor [E or F]		NEMA4X w/Disconnect Indoor	
Hp	kW	I_N [A]	Model	Size	Model	Size
5	4	16.5	ESV402N02TX[C] or [E]	V1	ESV402N02TMC	AC1
7.5	5.5	23	ESV552N02TX[D] or [F]	T1	ESV552N02TMD	AB1
10	7.5	29	ESV752N02TX[D] or [F]	T1	ESV752N02TMD	AB1
15	11	42	ESV113N02TX[D] or [F]	W1	ESV113N02TMD	AF1
20	15	54	ESV153N02TX[D] or [F]	W1	ESV153N02TMD	AF1

400/480V - 3Ø Input (3Ø Output)

Power		Output Current	NEMA4X Indoor [C or D] / Outdoor [E or F]*		NEMA4X w/Disconnect Indoor**	
Hp	kW	I_N [A]	Model	Size	Model	Size
0.5	0.37	1.3/1.1	ESV371N04TX[C] or [E]	R1	ESV371N04TMC	AA1
1	0.75	2.4/2.1	ESV751N04TX[C] or [E]	R1	ESV751N04TMC	AA1
1.5	1.1	3.5/3.0	ESV112N04TX[C] or [E]	R2	ESV112N04TMC	AA2
2	1.5	4.0/3.5	ESV152N04TX[C] or [E]	R2	ESV152N04TMC	AA2
3	2.2	5.5/4.8	ESV222N04TX[C] or [E]	R2	ESV222N04TMC	AA2
4	3.0	7.6/6.3	ESV302N04TX[C] or [E]	R2	ESV302N04TMC	AA2
5	4	9.4/8.2	ESV402N04TX[C] or [E]	V1	ESV402N04TMC	AC1
7.5	5.5	12.6/11	ESV552N04TX[C] or [E]	V1	ESV552N04TMC	AC1
10	7.5	16.1/14	ESV752N04TX[D] or [F]	T1	ESV752N04TMD	AB1
15	11	24/21	ESV113N04TX[D] or [F]	W1	ESV113N04TMD	AE1
20	15	31/27	ESV153N04TX[D] or [F]	W1	ESV153N04TMD	AE1
25	18.5	39/34	ESV183N04TX[D] or [F]	W1	ESV183N04TMD	AF1
30	22	46/40	ESV223N04TX[D] or [F]	X1	ESV223N04TMD	AF1

*Filter versions are also available in 1-phase: Replace the "X" in the Model Part Number with an "F".
**Filter versions are also available in 1-phase: Replace the "M" in the Model Part Number with an "L".

600V - 3Ø Input (3Ø Output)

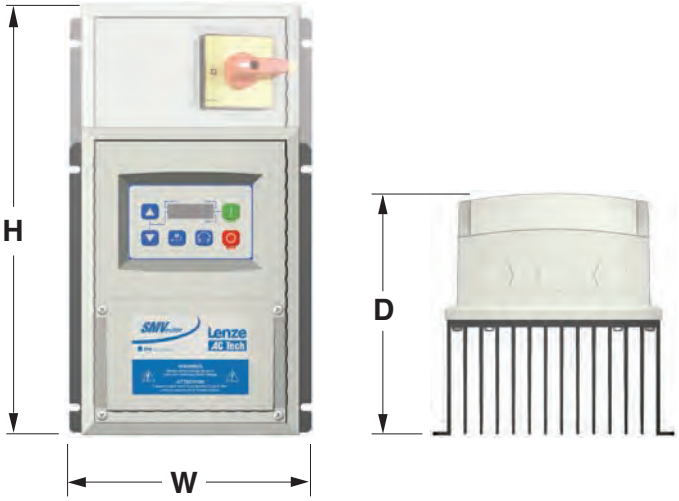
Power		Output Current	NEMA4X Indoor [C or D] / Outdoor [E or F]		NEMA4X w/Disconnect Indoor	
Hp	kW	I_N [A]	Model	Size	Model	Size
1	0.75	1.7	ESV751N06TX[C] or [E]	R1	ESV751N06TMC	AA1
2	1.5	2.7	ESV152N06TX[C] or [E]	R2	ESV152N06TMC	AA2
3	2.2	3.9	ESV222N06TX[C] or [E]	R2	ESV222N06TMC	AA2
5	4	6.1	ESV402N06TX[C] or [E]	V1	ESV402N06TMC	AC1
7.5	5.5	9	ESV552N06TX[C] or [E]	V1	ESV552N06TMC	AC1
10	7.5	11	ESV752N06TX[D] or [F]	T1	ESV752N06TMD	AB1
15	11	17	ESV113N06TX[D] or [F]	W1	ESV113N06TMD	AE1
20	15	22	ESV153N06TX[D] or [F]	W1	ESV153N06TMD	AE1
25	18.5	27	ESV183N06TX[D] or [F]	W1	ESV183N06TMD	AF1
30	22	32	ESV223N06TX[D] or [F]	X1	ESV223N06TMD	AF1

Dimensions

Dimensions

	H		W		D	
	in.	*mm*	*in.*	*mm*	*in.*	*mm*
R1	8.00	203	6.30	160	4.50	114
R2	8.00	203	6.30	160	6.30	160
S1	8.00	203	7.10	181	6.80	172
T1	10.00	254	8.10	204	8.00	203
V1	10.00	254	9.00	228	8.00	203
W1	14.40	366	9.40	240	9.50	241
X1	18.50	470	9.40	240	9.50	241
AA1 (4)	11.00	279	6.30	160	5.40	136
AA2 (4)	11.00	279	6.30	160	7.20	182
AB1 (4)	13.00	330	8.10	204	8.90	225
AC1 (4)	13.00	330	9.00	228	9.00	226
AD1 (4)	11.00	279	7.10	181	7.70	194
AE1 (4)	14.40	366	9.40	240	10.30	261
AF1 (4)	18.50	470	9.40	240	11.20	285

(4) The "D" (depth) dimension includes the disconnect switch.



Options

Communication Modules (Only one Communication module can be installed at a time.)

Item Number	Item Description
ESVZAC0	CANopen Communications Interface Module
ESVZAR0	RS-485/Modbus Communications Interface Module
ESVZAP0	PROFIBUS DP Communications Interface Module
ESVZAD0	DeviceNet Communications Interface Module
ESVZAE0	EtherNet/IP Communications Interface Module
Keypad	
ESVZXK1	Remote Keypad w/ drive interface module & cable up to 10HP (7.5kW)
ESVZXH0	Remote Keypad w/ cable 15HP (11kW) and up
Additional I/O (cannot be used with Communication modules or Remote keypad ESVZXK1)	
ESVZAL0	Additional Form C Relay Output Module
ESVZAL1	Additional I/O Module w/ 1 Form C Relay Output and 2 Digital Inputs
Potentiometer	
ESVZXM1	NEMA 4X terminal cover with integral speed potentiometer (W = 6.3 or 7.1 in)
ESVZXM2	NEMA 4X terminal cover with integral speed potentiometer (W = 9.0 or 8.1 in)
ESVZXM3	NEMA 4X terminal cover with integral speed potentiometer (W = 9.4 in)

Dynamic Braking Modules with Built-in Resistors

HP	(kW)	208 to 230 V Part Number	Motor Voltage 400 to 480 V Part Number	480 to 600 V Part Number
0.33 - 0.5	(0.25-0.37)	EZXDB3712A1	EZXDB3714A1	N/A
1 - 1.5	(0.75 - 1.1)	EZXDB1122A1	EZXDB1124A1	EZXDB1126A1
2 - 3	(1.5 - 2.2)	EZXDB2222A1	EZXDB2224A1	EZXDB2226A1
5	(4)	EZXDB4022A1	EZXDB4024A1	EZXDB4026A1
7.5	(5.5)	EZXDB5522A1	EZXDB5524A1	EZXDB5526A1
10	(7.5)	EZXDB7522A1	EZXDB7524A1	EZXDB7526A1
Dynamic Braking Modules without Built-in Resistors				
15 - 20	(11 - 15)	EZXDC1532A1	N/A	N/A
15 - 30	(11 - 22)	N/A	EZXDC2234A1	EZXDC2236A1
Open Dynamic Braking Resistors with mounting brackets				
15 - 20	(11 - 15)	841-009	841-009	841-010
25 - 30	(18.5 - 22)	N/A	841-011	841-012

ATTACHMENT 3
(PILOT STUDY REPORT)

PILOT STUDY REPORT
ABANDONED SOLVENT CENTER SITE

POMPEY, NY
NYSDEC NO. 734035

PREPARED ON BEHALF OF
THE ABANDONED SOLVENT CENTER SITE PARTICIPATING PARTIES

PREPARED BY

TETRA TECH
175 NORTH CORPORATE DRIVE SUITE 100
BROOKFIELD, WI 53045
(262) 792-1282

TETRA TECH PROJECT NO. 117C-GE-00048 SEPTEMBER 2022

175 North Corporate Drive, Brookfield, Wisconsin 53045

PILOT STUDY REPORT
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BROOKFIELD, WI 53045
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CERTIFICATION STATEMENT

I, JAMES RUSSELL DICKSON, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Pilot Study Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

089100 PE

09/21/2022 DATE

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Appendices

Appendix A: Site Photograph logs
Appendix B: Field Forms
Appendix C: Complete Laboratory Analytical Results

ACRONYMS AND ABBREVIATIONS

µg/L	Micrograms per Liter
1,1,1-TCA	1,1,1-Trichloroethane
1,1-DCA	1,1-Dichloroethane
1,2-DCE	1,2-Dichloroethene
1,4-D	1,4-Dioxane
CCC	Calgon Carbon Corporation
CVOCs	Chlorinated Volatile Organic Compounds
GAC	Granular Activated Carbon
GE	General Electric Company
gpd	Gallons Per Day
gph	Gallons Per Hour
gpm	Gallons Per Minute
LGAC	Liquid-Phase Granular Activated Carbon
MEK	2-Butanone
ND	Non-detect
NS	Not Sampled
NYSDEC	New York State Department of Environmental Conservation
TCE	Trichloroethene
TCL	Target Compound List
Tetra Tech	Tetra Tech, Inc.
US 20	U.S. Highway 20
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) prepared this report on behalf of the participating parties, General Electric Company (GE) and Bristol-Myers Squibb Company, to present the results of the pilot study for the treatment of volatile organic compounds (VOCs) and 1,4-dioxane (1,4-D) in groundwater at the GE Pompey Site in New York using conventional granular activated carbon (GAC).

This study was requested by the New York State Department of Environmental Conservation (NYSDEC) in correspondence dated October 25, 2021. This study satisfies the requirements outlined in the Administrative Order on Consent (effective August 1, 1995) and the Partial Consent Decree (No. 97 CV-0976) dated December 15, 1997.

1.1 Background

The Abandoned Solvent Center site occupies approximately 6.5 acres at the intersection of U.S. Highway 20 (US 20) and Ridge Road (County Road 128) in the Town of Pompey, Onondaga County, New York. US 20 and Ridge Road form the northwestern and eastern borders of the site, respectively. The surrounding area is rural agricultural with several residential properties and one business immediately adjacent to the site.

The former septic system (tank and leach field) at the site appeared to be the primary source of chlorinated VOCs (CVOCs) contamination, specifically, 1,1,1-trichloroethane (1,1,1-TCA) and trichloroethene (TCE) and their respective breakdown products 1,1-dichloroethane (1,1-DCA) and 1,2-dichloroethene (1,2-DCE). The site currently has an air stripper that treats these identified contaminants.

During the sampling of onsite monitoring wells in 2020, a potential secondary source of 1,4-D was observed from the existing treatment system's discharge to the surface water ditch located near US 20. The presence of the elevated 1,4-D concentration in the treatment system's discharge indicated the inability of the current system to treat 1,4-D; thus, the need for a new technology to augment or replace the existing treatment system. The existing treatment system is an air stripper operating in a batch process of up to 20 gpm with and equalization tank with a normalized flow of less than 1 gpm.

On August 6, 2021, Tetra Tech submitted to the NYSDEC on behalf of the Participating Parties an evaluation of treatment options for 1,4-D including treatment using carbon (with and without air stripping), treatment with resin (Ambersorb^{TM}), and an advanced oxidation process. All the remedial options were considered viable in treating 1,4-D and the target CVOCs and capable of meeting applicable regulatory requirements. The carbon treatment option was selected as the preferred alternative based on research conducted during the focused feasibility study, recommendation by a GAC media vendor (Calgon Carbon Corporation) experienced with similar treatability studies at other sites, results from successful implementation of the GAC technology at an adjacent drinking water treatment system, and it had the lowest capital and annual operation and maintenance costs compared to the other options.

Tetra Tech proposed that a pilot study should be performed to confirm the effectiveness of the selected GAC option in treating 1,4-D in the groundwater at the site. On October

25, 2021, the NYSDEC concurred with the proposal and requested a revised treatment system design plan for evaluation and approval.

1.2 Pilot Study Objectives

The primary objectives of the pilot test were to determine the effectiveness of the selected remedial technology in reducing the concentration of 1,4-D and target VOCs in groundwater; evaluate the breakthrough of 1,4-D in the GAC system; and acquire data needed to design a new full-scale treatment system.

2.0 TEST DESIGN

The pilot study was designed to simulate full-scale batch groundwater treatment at 10 gpm using three liquid-phase granular activated carbon (LGAC) vessels in series. The flow rate is the minimum hydraulic loading rate allowed for 1,000-pound LGAC vessels to prevent channeling (i.e., flowing through the path with the least resistance) and also ensure that the entire carbon bed is utilized. The pilot study setup consisted of a Calgon Carbon Corporation (CCC) provided pilot study test skid with 4-inch diameter carbon columns and dual inlets. Since the actual system operates intermittently, two 500-gallon vertical tanks were connected in series to provide a reservoir of approximately 1,000 gallons of untreated water with the outlet of a second tank overflowing into an existing system T-300 equalization tank prior to acid addition. This tank holds and provides a constant feed of untreated water to the pilot skid even if the existing system is taken offline by equipment issues between site visits. Water from the second 500-gallon tank was pumped into the pilot study test skid columns for treatment using a Pulsafeeder Pulsatron diaphragm metering pump. This pump had easy flow rate control and turndown (stroke) features. The metering pump was used to maintain the flow rate of the system based on the determined stroke length and rate. The treated water from the skid was initially discharged into the equalization tank T-300 to complete the treatment cycle. The system configuration is presented in Figure 1 and the pilot study skid is presented in Figure 2. Photographs No. 1 and 2 in Appendix A, show the arrival and dissembling of the test skid for the pilot study.

The CCC skid had dual inlets and four small vertical treatment columns with a 4-inch diameter and the skid. The unit had tubes, pressure regulating valves, needle valves, and flow meters for adjusting flow. Photographs No. 3 and 4 in Appendix A, show the front and rear views of the skid, respectively.

The columns in the unit were prefilled with dry GAC (Calgon® OLC 12x40) for treatment. Virgin GAC was used instead of regenerated GAC because the pore structure of virgin GAC enables it to remove a wider range of contaminants in water as compared to the regenerated GAC. In addition, the effective sorption area of regenerated GAC degrades over time requiring more frequency changeouts. The pilot unit has four columns but only three of the columns were used in the pilot study. The fourth column was also filled with GAC and it acted as a spare column. The three columns were operated in series and the contaminated groundwater was allowed to flow continuously through the columns at a controlled flow rate of 0.091 gpm to simulate 10 gpm at a full-scale operation. The design parameters of the columns used in the study are presented on the next page.

Design Parameters for GAC Columns Used in Pilot Study

Parameter	Value
Diameter of Column (inches)	4.0
Length of Column (feet)	5.0
Number of Columns	3.0
Depth of GAC in a Column (feet)	3.66
Apparent Density of GAC (grams per cubic centimeters)	0.535
Density of GAC (Pounds per cubic foot)	28.38

3.0 FIELDWORK, SAMPLING, AND ANALYSIS

3.1 Test Skid Installation and Startup

Field activities for this pilot study began on January 22, 2022 and were completed on April 6, 2022. These activities included mobilizing to the site, installing the CCC pilot test skid, setting up the system, troubleshooting the equipment, and collecting samples for laboratory analysis.

On January 27, 2022, Tetra Tech field personnel mobilized to the site to accept, inspect, and set up the skid for the study; however, parts of the skid including the air release valve, regular valve, check valves, piping, and fitting were damaged in transit. Photographs No. 5 through 7 (Appendix A) show the damaged parts of the skid. Replacement parts were procured, and the system setup was completed on February 2, 2022. During the system setup, the metering pump was tested for performance; the hoses, pipes, and columns were inspected for leaks; and the water levels in the 500-gallon tanks associated with the existing system were inspected for overflow. Based on the design of the system, an overflow of water from the 500-gallon tanks into the equalization/mixing tank of the air stripper was anticipated to ensure that the system was properly set up to meet the objectives of the study. After the system setup was completed, the dry GAC in the columns was soaked with clean water from a 50-gallon tank conveyed to the site. The GAC was soaked for a minimum of 24 hours to ensure the pores were saturated with water and all air was displaced.

On February 8, 2022, each of the GAC columns was backwashed with clean water at 0.55 gpm before the pilot study began to remove any fines and sort the carbon beds. The columns were flushed until the water in the three columns was clear. Approximately 16.4 gallons of water were used to backwash each column. The metering pump was adjusted to a stroke length of 22 and a stroke rate of 65 to achieve a flow of 5.5 gallons per hour (gph), the average target flow rate. The volume of water measured by the totalizer per event was recorded on the field logs presented in Appendix B.

3.2 Test Skid Monitoring, Sampling, and Analysis

During the pilot study, the skid was monitored for any changes in the physical appearance of the water in the column including bubbles formation, turbidity, sedimentation, and precipitation. Tetra Tech field personnel measured the temperature, pH, and electrical conductivity of the water in the skid and sampled water from the time series influent (sample 1), post-column 1 (sample 2), post-column 2 (sample 3), and post-column 3 or effluent (sample 4) for chemical analysis. (The system was assumed to be arranged in series as influent, lead, mid-lag, and lag.) The samples were collected weekly or biweekly depending on the predetermined schedule and field/laboratory results. The samples were collected in laboratory-provided containers for target compound list (TCL) VOCs analysis by United States Environmental Protection Agency (USEPA) Method 8260C and 1,4-D analysis by USEPA Method 8270D SIM with isotope dilution. The samples were transported on the same day of collection to Eurofins Test America Buffalo Laboratories in Amherst, New York for analyses using the chain-of-custody protocol. The samples

were transported to the laboratory accompanied by the collected quality assurance and quality control samples. The field documentation is presented in Appendix B.

3.3 Inspections, Tuning, Maintenance, and Troubleshooting

During the pilot study, the system was inspected weekly prior to and after sampling of the columns to ensure that the test skid is functioning as intended. The system was inspected for leaks, sediment buildup, turbidity, and water level. During each visit, the metering pump was inspected to ensure the designed rate of 5.5 gph (0.09 gpm) or equivalent was maintained through the system. Maintenance and troubleshooting of the system were done when necessary. Cleaning of the test skid and the adjustment of the control settings on the metering pump were done frequently to ensure proper operation of the system and related components.

4.0 PILOT TEST RESULTS AND DISCUSSION

4.1 Pilot Study Analytical Results

Table 1 presents a summary of the analytical results of the pilot study and the complete analytical results are presented in Appendix C.

1,4-D in the influent, post-column 1, post-column 2, and the effluent samples ranged from 61 to 84 micrograms per liter (μg/L), non-detect (ND) to 91 μg/L, ND to 71 μg/L, and ND to 15 μg/L, respectively. A summary of the 1,4-D results during the pilot study is summarized below.

Pilot Study 1,4-Dioxane Sampling Results

Date	Elapsed Time (Days)	1,4-Dioxane Concentration				
		Influent (µg/L)	Post-Col. 1 (µg/L)	Post-Col. 2 (µg/L)	Post-Col. 3 (µg/L)	Target* Effluent Conc. (µg/L)
2/08/2022 15:25	0	NS	NS	NS	NS	1.0/0.35
2/16/2022 14:25	8	61 E	0.2 U	0.2 U	0.2 U	1.0/0.35
2/22/2022 14:25	14	71 E	0.66	0.2 U	0.2 U	1.0/0.35
3/10/2022 18:10	30	84 E	44 E	0.39	0.2 U	1.0/0.35
3/24/2022 15:50	44	76 E	91 E	20 E	0.26	1.0/0.35
3/30/2022 17:30	50	70	81	49 E	1.9	1.0/0.35
4/06/2022 9:57	57	67	89	71	15	1.0/0.35

Note:
µg/L = micrograms per liter; Col. = Column; conc. = concentration; NS = not sampled; E = indicates the analyte exceeded the highest calibration standard; U = indicates the compound was analyzed but not detected.

* The NYSDEC screening criteria for 1,4-D in raw water sources is 0.35 µg/L and the New York State Department of Health Maximum Contaminant Level for finished drinking water, adopted in August 2020 is 1.0 µg/L.

1,4-D was not detected in the first column (post-column 1) after the second week, the second column (post-column 2) after the third week, and the third column (post-column 3) after the fourth week. The analytical results indicated non-detect VOCs except for the following compounds:

- 2-Butanone (MEK) was detected in post-column 2 but was absent in post-column 1 during the February 16, 2022 sampling event.
- Carbon disulfide was detected in effluent and post-column 1 during the March 10, 2022, sampling event.
- Carbon disulfide was detected in the effluent and post-columns 1 and 2; acetone was detected in the post-columns 1 and 2; and MEK was detected in post-column 2 during the March 24, 2022 sampling event.

The presence of these compounds could be related to laboratory contamination or anomalies during analysis since these were never detected in the influent stream.

It should be noted that all VOCs in the water that passed through the pilot study system remained below detection in all columns, apart from the untreated water in the influent stream.

4.2 Pilot Study Corrective Actions

Below is a summary of the corrective actions taken during the study.

- During a visit to the site on February 16, 2022, the air stripper pH alarm was triggered due to an acid addition issue. This resulted in the treated water from the pilot overflowing into the building sump. The water was pumped back to the system inlet sump for treatment by the system and to clear the building sump alarm for the system to be restarted. During the same day, the flow of water through the system was about 3 gph (lower than the 5.5 gph target designed flow rate). The stroke length and rates of the metering pump were adjusted to maintain the flow within the design range. The discharge of the pilot skid columns was relocated to the outfall pipe to ensure the building does not flood from the overflow if the system had issues during future sampling events.
- During a visit to the site on February 22, 2022, bubbles were observed in the water column due to leaks caused by damaged components on the skid. The damaged areas were patched using putty and clamps to ensure the beds in the columns remained saturated (Photographs No. 8 and 9 in Appendix A).
- During a visit to the site on March 10, 2022, sediments were observed to have accumulated on top of the GAC in post-column 1 due to the presence of suspended materials in the influent (shown in Appendix A, Photograph No. 10). The accumulated sediment did not affect the performance of the GAC in treating the water. The full-scale system concept will include the installation of bag filters before connection to the carbon vessels to remove sediments and other fine particles; thus, addressing this concern.
- During a visit to the site on March 22, 2022, the system flow rate was observed below the designed flow rate. The stroke length was adjusted to obtain flow rates ranging from 5.2 to 5.4 gph.

5.0 DATA EVALUATION AND DISCUSSION

Results and observations made during the pilot study are discussed below.

5.1 Pilot System Operation

There were no significant differences in the results obtained from the predictive isotherm model provided by CCC and that of the pilot study. The predictive isotherm model indicated a carbon usage rate of 1.7 pounds of GAC per 1,000 gallons of water treated. The predictive model calculation is as follows:

- Volume of carbon required: 10 gpm x 20 minutes = 200 gallons
- Mass of carbon required: 200 gallons of 3.8 pounds/gallon (coconut) = 760 pounds per vessel
- Implication: Cyclesorb FP-1 (or equivalent) with 1000 pounds of GAC per vessel is required
- Empty bed contact time: 26.3 minutes per vessel
- Minimum superficial velocity: 1 gpm per square feet

The design parameters of the pilot study are presented below.

Pilot Study Design Parameters

Parameter	Value
Flow Rate (gallons per minute)	0.092
Flow Rate (cubic centimeter per minute)	343
Cross-Sectional Area (square feet)	0.087
Superficial Velocity (gallons per minute per square feet)	1.04
Weight of GAC in Column (pounds)	9.07
GAC Column Volume (gallons)	2.40
Contact Time per Column (minutes)	26.36
Contact Time for all Columns (minutes)	79.08
Backwash Flow Rate (gallons per minute)	0.55
Volume per Backwash (gallons)	16.40

5.2 Pilot System Contaminant Removal Performance

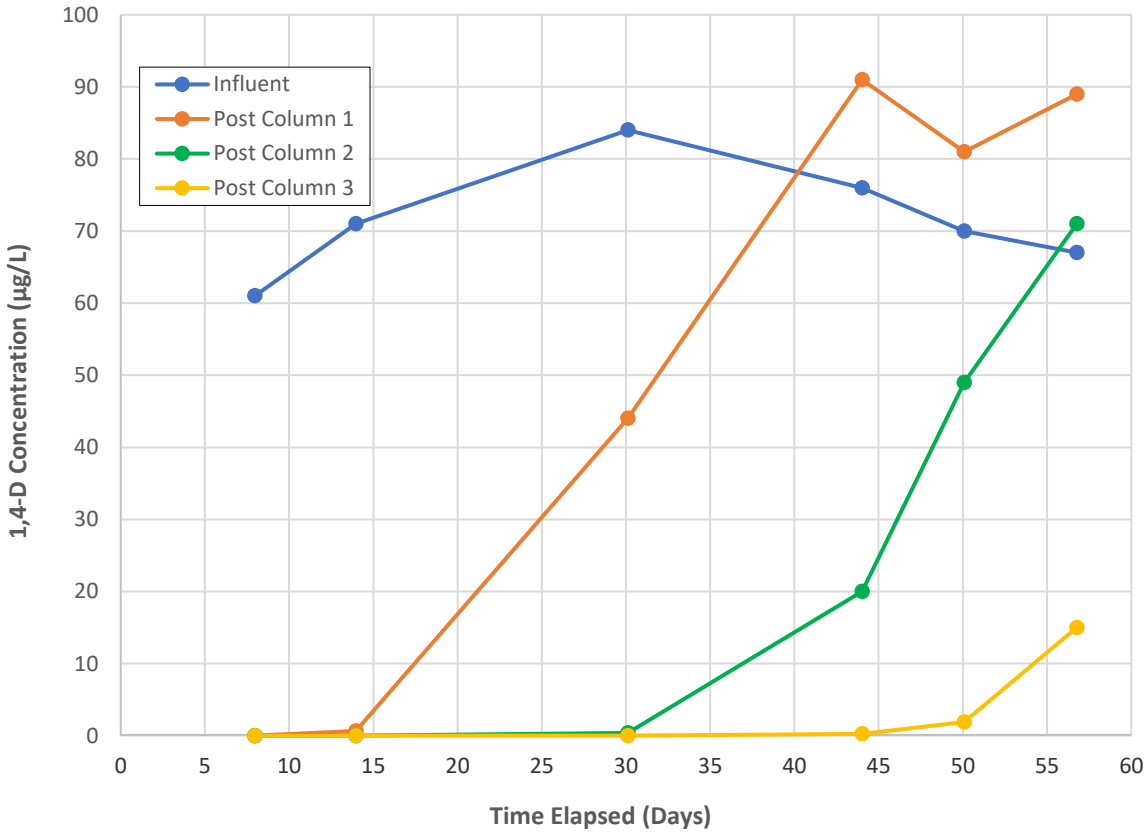
During the pilot study, the VOCs and 1,4-D in the influent were removed as the contaminants passed through post-columns 1 to 3, indicating that the contaminants were easily removed during the process. Except for the influent, the concentration of contaminants in the water reduced significantly as they passed through the GAC in the columns of the skid. The discussions of the pilot study results are limited to 1,4-D since this is the target contaminant of concern for this study.

The GAC used in the system effectively removed 1,4-D to concentrations below the detection limit of 0.2 μg/L from the effluent stream until 44 days of continuous operations

passed. The curve below shows the breakthrough of 1,4-D as it moves through the GAC. As indicated in the curve, only post-column 1 showed a complete breakthrough, meaning the column's effluent value was equal to or greater than the influent's value for the treatment of 1,4-D in the water as it moved through the columns. The curve shown by post-column 1 will continue to flatten out as a semi-steady state condition is reached; however, contaminant removal will continue for a prolonged period but at a minimal rate.

Due to the short duration of the study, post-columns 2 and 3 were yet to have a complete breakthrough for 1,4-D. However, based on the results from the predictive isotherm model and that of the treatability studies performed at other sites, the curve displayed by post-column 1 will be exhibited by post-columns 2 and 3 to indicate the effectiveness of GAC in treating the contaminants of concern. Except for the influent, all the GAC-filled test columns exhibited a gradual breakthrough of 1,4-D throughout the study. A complete breakthrough was observed in post-column 1 after 44 days indicating an apparent success in removing 1,4-D. The pilot-scale GAC usage rate of 1.57 pounds per 1,000 gallons of treated water was observed during the study.

1,4-Dioxane GAC Column Breakthrough Concentrations During Pilot Test



The curve above indicates that the spent GAC in post-column 1 should be replaced after 30-40 days of continuous flow and the Lead/Lag-1/Lag-2 series configuration should be alternated. After the initial lead vessel is changed and placed in the Lag-2 position, the initial Lag-1 GAC vessel becomes the new lead vessel, and the initial Lag-2 vessel becomes the new Lag-1 vessel.

The calculated flow rates through the columns during the pilot study to attain optimal treatability results are presented below.

Calculated and Measured Flow Rates During Pilot Test

Date & Time	Time Elapsed (days)	Totalizer (gallons)	Calculated		Realtime Rotometer Reading (gph)
			Flow (gpd)	Flow (gph)	
2/08/2022 15:25	0	0	0	0	5.50
2/16/2022 14:25	7.96	401.10	50.39	2.10*	5.50
2/22/2022 14:25	13.96	1219.80	136.45	5.70	5.50
3/10/2022 18:10	30.11	2890.40	103.44	4.30	6.00
3/24/2022 15:50	44.02	4389.50	107.77	4.50	5.00
3/30/2022 17:30	50.09	5261.90	143.72	6.00	5.80
4/06/2022 9:57	56.77	7071.30	270.87	11.30	5.50
			Average	**5.13**	

Note:
gpd = gallons per day; gph = gallons per hour
* The suction line was not installed deep in the tank; hence, it ran out of water.

5.3 Contact Time

The empty bed contact time was determined as the volume of the empty bed divided by the flow rate. It is a measure of the time water is in contact with the GAC material, assuming all water passes through the GAC material at the same velocity. The estimated empty bed contact time during the pilot study was 26.4 minutes compared to the minimum predicted time of 20 minutes. It is expected that the general increase in the empty bed contact time will improve the removal of 1,4-D by GAC due to the longer contact time between the GAC material and the contaminated groundwater.

5.4 Full-Scale Operation Design

The full-scale operation design based on the pilot-scale values is presented on the next page.

Design Parameters for Full-Scale Treatment System

Parameter	Value
Total Flow rate (gallons per minute)	10
Vessel Diameter (feet)	3.5
Number of Vessels	3.0*
GAC Weight per vessel (pounds)	1,000
GAC Average Density (pounds per cubic feet)	28.38
Backwash Rate (gallons per minute per square feet)	6.25
Backwash Duration (minutes)	30
Vessel Superficial Velocity (gallons per minute per square feet)	1.04
GAC Vessel Volume (gallons)	264
Contact Time per Vessel (minutes)	26.36
Contact Time for all Vessels (minutes)	79.08
Backwash Flow (gallons per minute)	60
Volume per Backwash (gallons)	1,804

Note: *Additional vessel will be added as spare.

The actual flow rates observed in the Discharge Monitoring Reports for the site during the 2019, 2020, and 2021 sampling events were considered for the full-scale evaluation of the system at the design flow rate of 10 gpm. The flow rates are presented below.

Observed Historical Treatment System Flow Rates

Quarter	Duration				Volume (gal.)	Flow Rate (gpm)	Annual Volume (gal.)	Average Flow Rate (gpm)
	Start Date	End Date	Days	Minutes				
Q1 2019	11/18/2018	2/21/2019	95	136,800	83,731	0.61	416,165	0.71
Q2 2019	2/21/2019	5/20/2019	88	126,720	104,316	0.82		
Q3 2019	5/21/2019	8/26/2019	97	139,680	88,052	0.63		
Q4 2019	8/26/2019	12/27/2019	123	177,120	140,066	0.79		
Q1 2020	12/27/2019	3/30/2020	94	135,360	98,764	0.73	128,468	0.24
Q2 2020	3/30/2020	6/22/2020	84	120,960	5,295	0.04		
Q3 2020	6/22/2020	9/21/2020	91	131,040	7,565	0.06		
Q4 2020	9/21/2020	12/22/2020	92	132,480	16,844	0.13		
Q1 2021	12/22/2020	3/30/2021	98	141,120	12,921	0.09	330,864	0.65
Q2 2021	3/30/2021	7/8/2021	100	144,000	66,432	0.46		
Q3 2021	7/8/2021	10/4/2021	88	126,720	194,190	1.53		
Q4 2021	10/4/2021	12/21/2021	78	112,320	57,321	0.51		

Note: Gal. = gallons; gpm = gallons per minute; Q = Quarter

The maximum average flow rate observed at the site from the first quarter of 2019 to the fourth quarter of 2021 was 0.71 gpm. The actual system will be monitored for any detectable breakthroughs following the Lag-1 vessel and changeouts made on the lead vessel once observed. The pilot study was designed as a continuous system operating at a flow rate of 0.092 gpm, which simulates the surficial loading rate of a full-scale 1,000-pound GAC vessel.

Based on historical operational data, the full-scale system is expected to treat up to 416,000 gallons of water annually. The pilot test results show the GAC material to have a consumption of approximately 1.57 pounds of GAC per 1,000 gallons of water treated, which provides approximately 636,943 gallons of treatment capacity for the full-scale operation. This results in a maximum estimated GAC changeout for the full system of 560 days. This treatment capacity could be slightly reduced during subsequent changeouts due to initial loading on the new lead vessel.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

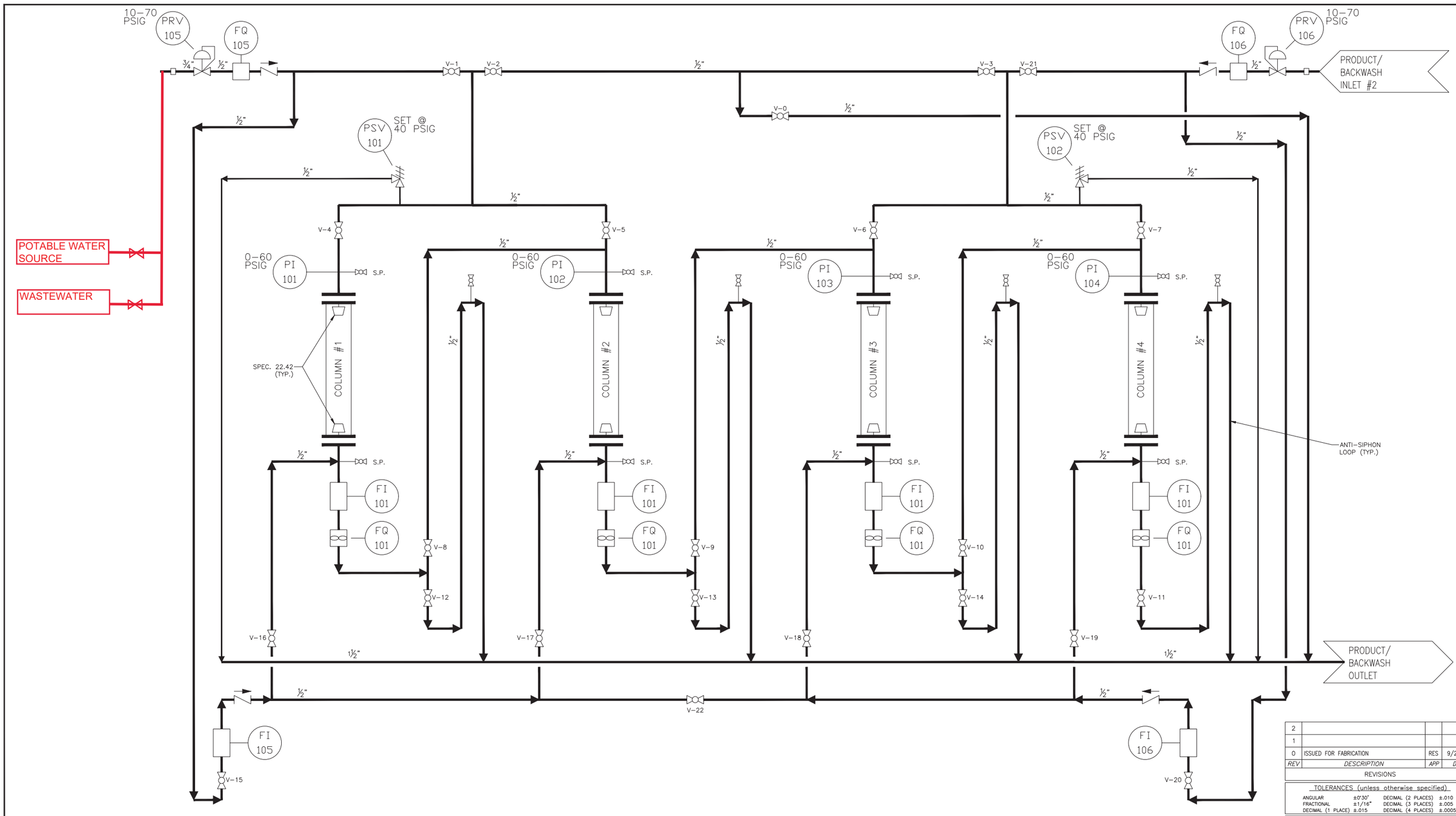
This pilot study provided operational and design information for the proposed new system for treating target contaminants 1,4-D and the TCL VOCs, especially 1,1,1-TCA, TCE, 11,1-DCA, and 1,2-DCE. The results obtained during the study were similar to that of the predictive isotherm model presented by CCC, indicating that the selected option (GAC) is capable of remediating the target contaminant 1,4-D to concentrations below 0.35 µg/L (the NYSDEC screening criteria for 1,4-D in raw water sources).

Based on the results of the pilot study, a remedial design will be completed for the treatment system. The design report will include the results of the pilot study, design criteria, design basis, process description, system layout, system operation and maintenance, and associated drawings and specifications.

6.2 Recommendations

It should be noted that the groundwater treatment at the site using GAC and a flow rate higher than 10 gpm will not give optimal results under normal circumstances. The use of three GAC columns in series during the pilot study provided results that met the goal of the study; hence, three GAC vessels will be used in the full-scale operation and the flow of water through the vessels will be constrained to 10 gpm to ensure that the estimated empty bed contact time of 26.4 minutes per vessel is maintained. It is recommended that the virgin coconut shell carbon (Calgon® OLC 12x40 or similar) used in the pilot study should be maintained in the full-scale operation since it has a better sorptive capacity and a longer lifespan. The estimated changeout for the spent GAC should be done annually.

FIGURES



INSTRUMENTS

INDENTIFICATION	TOTALIZER	OPERATION	RANGE
FI–101 THRU FI–104	NO	MECHANICAL	0.1 TO 1.0 GPM
FI–105 THRU FI–106	NO	MECHANICAL	0.2 TO 2.0 GPM
FQ–101 THRU FQ–104	YES	BATTERY	0.4 TO 4.0 GPM
FQ–105 THRU FQ–106	YES	MECHANICAL	0.5 GPM TO 20 GPM

NOTES:
MAX. OPER. PRESS. _____
MAX. OPER. TEMP. _____
MAX. OPER. FLOW _____
MEDIA TYPE _____

	NAME	DATE
DRAFTER	BKM	8/24/15
DESIGNER		
CHECKER	RES	8/25/15
APPROVAL		
PROJECT No.	STANDARD	

REV	DESCRIPTION	APP	DATE
2			
1			
0	ISSUED FOR FABRICATION	RES	9/23/15

REVISIONS

TOLERANCES (unless otherwise specified)

ANGULAR	±0°30"	DECIMAL (2 PLACES)	±.010
FRACTIONAL	±1/16"	DECIMAL (3 PLACES)	±.005
DECIMAL (1 PLACE)	±.015	DECIMAL (4 PLACES)	±.0005

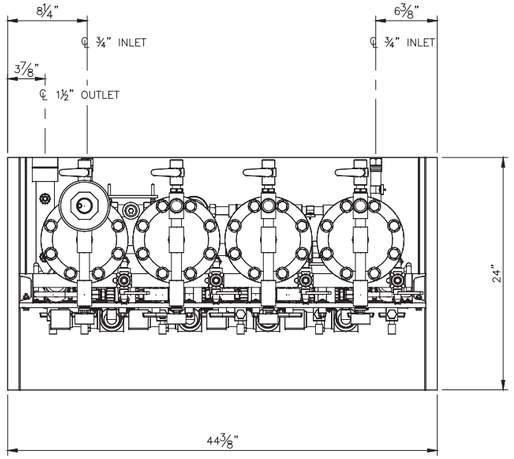
CalgonCarbon

CLIENT: STANDARD

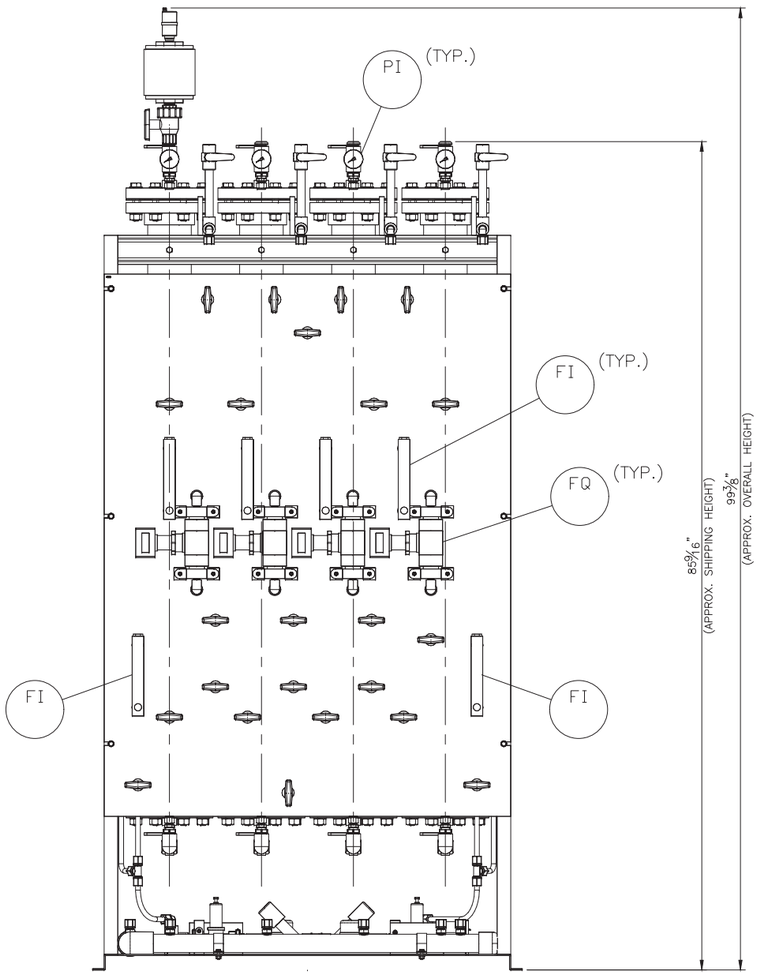
TITLE: 4 COLUMN PILOT DUAL INLET P & ID

DWG. Size	SHEET No.	SCALE
D	1 OF 1	NONE

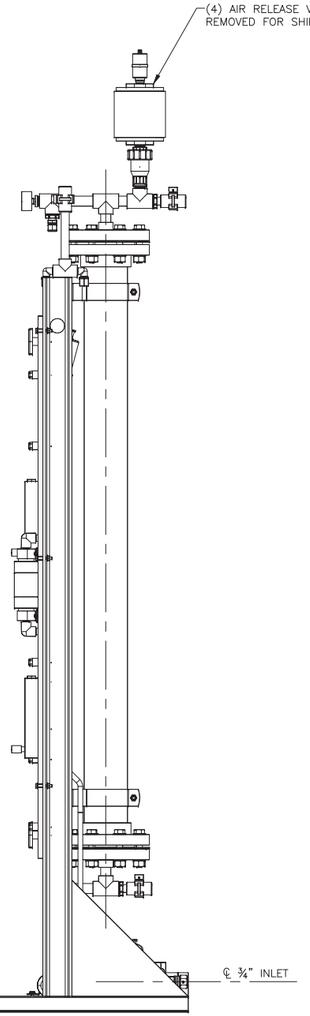
DWG. No. 90150312 REV. 0



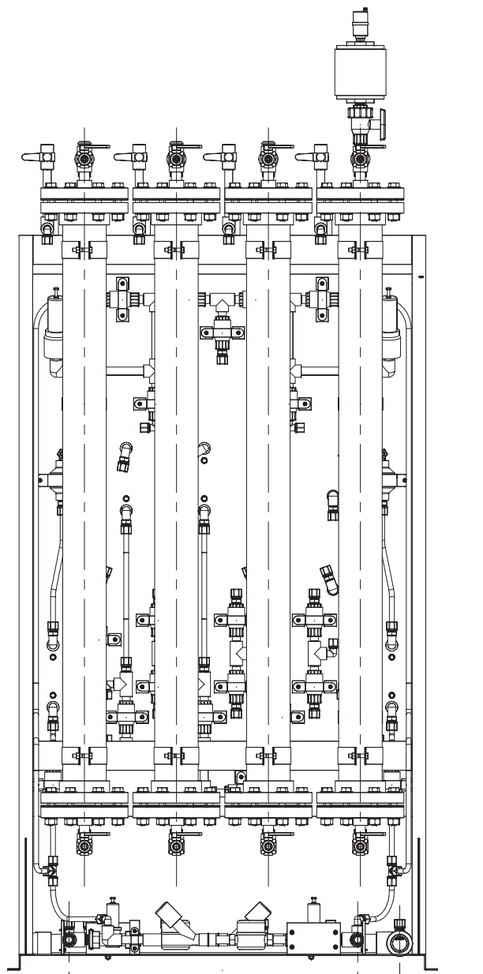
PLAN



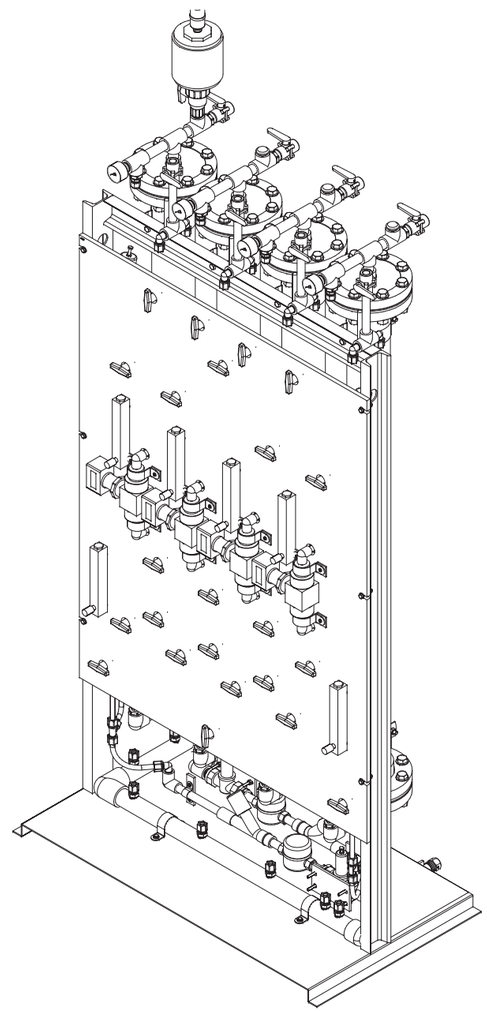
FRONT ELEVATION



SIDE ELEVATION



BACK ELEVATION



ISOMETRIC VIEW

NOTES:

1. WEIGHT: 375 LBS, (APPROX.)

REV.	DESCRIPTION	APP	DATE
2			
1	REVISED DWG #, WAS 90150317	BKM	5/7/19
0	ISSUED FOR FABRICATION	RES	9/24/15

REVISIONS

TOLERANCES (unless otherwise specified)

ANGULAR	±0°30'	DECIMAL (2 PLACES)	±.010
FRACTIONAL	±1/8"	DECIMAL (3 PLACES)	±.005
DECIMAL (1 PLACE)	±.015	DECIMAL (4 PLACES)	±.0005

	NAME	DATE
DRAFTER	BKM	9/23/15
DESIGNER		
CHECKER	RES	9/23/15
APPROVAL		
PROJECT No.	STANDARD	

CalgonCarbon
A Kuraray Company

CLIENT: STANDARD

TITLE: 4 COLUMN PILOT DUAL INLET GENERAL ARRANGEMENT

DWG. Size: D | SHEET No.: 1 OF 1 | SCALE: NONE

DWG. No.: 90150328 △1 | REV.: 1

TABLE

TABLE 1: SUMMARY OF TARGET COMPOUNDS ANALYTICAL RESULTS
GE POMPEY PILOT STUDY, NEW YORK

ANALYTE	NYSAWQS	INFLUENT						
		02/08/22	02/16/22	02/22/22	03/10/22	03/24/22	03/30/22	04/06/22
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
1,4-Dioxane	50	NS	**61 E**	**71 E**	**84 E**	**76 E**	**70**	**67**
1,1,1-Trichloroethane	5.0	NS	**6.5**	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1,2,2-Tetrachloroethane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,1,2-Trichloroethane	1.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,1-Dichloroethane	5.0	NS	**5.0**	**22**	**35**	**24**	**12**	**19**
1,1-Dichloroethene	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,2,4-Trichlorobenzene	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,2-Dibromo-3-Chloropropane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,2-Dibromoethane (Ethylene Dibromide)	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,2-Dichlorobenzene	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,2-Dichloroethane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,2-Dichloropropane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
1,3-Dichlorobenzene	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
2-Hexanone	NA	NS	25 U	20 U	20 U	20 U	20 U	NR
Acetone	50	NS	50 U	40 U	40 U	40 U	40 U	NR
Benzene	1.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Bromodichloromethane	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Bromoform	50	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Carbon Disulfide	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Carbon Tetrachloride	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Chlorobenzene	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Chloroethane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Chloroform	7.0	NS	5.0 U	1.5 J	4.0 U	4.0 U	4.0 U	NR
Chloromethane	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Cis-1,2-Dichloroethylene	5.0	NS	**200**	**140**	**240**	**170**	**99 T**	140
Cis-1,3-Dichloropropene	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Cyclohexane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Dibromochloromethane	50	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Dichlorodifluoromethane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Ethylbenzene	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Isopropylbenzene (Cumene)	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Methyl Acetate	NA	NS	13 U	10 U	10 U	10 U	10 U	NR
Methyl Ethyl Ketone (2-Butanone)	50	NS	50 U	40 U	40 U	40 U	40 U	NR
Methylcyclohexane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Methylene Chloride	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Styrene	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Tert-Butyl Methyl Ether	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Tetrachloroethylene	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Toluene	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Trans-1,2-Dichloroethene	5.0	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Trans-1,3-Dichloropropene	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Trichloroethylene	5.0	NS	**7.7**	4.6	**5**	3.3 J	4.0 U	4.0
Trichlorofluoromethane	NA	NS	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NR
Vinyl Chloride	2.0	NS	5.0 U	4.0 U	**37**	**5.3**	**5.3**	**4.1**
Xylenes	5.0	NS	10 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U

TABLE 1: SUMMARY OF TARGET COMPOUNDS ANALYTICAL RESULTS
GE POMPEY PILOT STUDY, NEW YORK

ANALYTE	NYSAWQS	POST COLUMN 1						
		02/08/22	02/16/22	02/22/22	03/10/22	03/24/22	03/30/22	04/06/22
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
1,4-Dioxane	50	NS	0.2 U	0.66	44 E	**91 E**	**81**	**89**
1,1,1-Trichloroethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1,2-Trichloroethane	1.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1-Dichloroethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dibromo-3-Chloropropane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dibromoethane (Ethylene Dibromide)	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichloropropane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,3-Dichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
2-Hexanone	NA	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NR
Acetone	50	NS	10 U	10 U	10 U	5.9 J	10 U	NR
Benzene	1.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Bromodichloromethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Bromoform	50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Carbon Disulfide	NA	NS	1.0 U	1.0 U	0.19 J	0.41 J	1.0 U	NR
Carbon Tetrachloride	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloroform	7.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloromethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Cis-1,2-Dichloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cis-1,3-Dichloropropene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Cyclohexane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Dibromochloromethane	50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Dichlorodifluoromethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Ethylbenzene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene (Cumene)	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Methyl Acetate	NA	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	NR
Methyl Ethyl Ketone (2-Butanone)	50	NS	10 U	10 U	10 U	10 U	10 U	NR
Methylcyclohexane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Methylene Chloride	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Styrene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Tert-Butyl Methyl Ether	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Tetrachloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trans-1,2-Dichloroethene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trans-1,3-Dichloropropene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Trichloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Vinyl Chloride	2.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes	5.0	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

TABLE 1: SUMMARY OF TARGET COMPOUNDS ANALYTICAL RESULTS
GE POMPEY PILOT STUDY, NEW YORK

ANALYTE	NYSAWQS	POST COLUMN 2						
		02/08/22	02/16/22	02/22/22	03/10/22	03/24/22	03/30/22	04/06/22
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
1,4-Dioxane	50	NS	0.2 U	0.2 U	0.39	20 E	49 E	**71**
1,1,1-Trichloroethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1,2-Trichloroethane	1.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1-Dichloroethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dibromo-3-Chloropropane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dibromoethane (Ethylene Dibromide)	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichloropropane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,3-Dichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
2-Hexanone	NA	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NR
Acetone	50	NS	10 U	10 U	10 U	**65**	4.4 J	NR
Benzene	1.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Bromodichloromethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Bromoform	50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Carbon Disulfide	NA	NS	1.0 U	1.0 U	1.0 U	0.39 J	1.0 U	NR
Carbon Tetrachloride	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloroform	7.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloromethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Cis-1,2-Dichloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cis-1,3-Dichloropropene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Cyclohexane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Dibromochloromethane	50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Dichlorodifluoromethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Ethylbenzene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene (Cumene)	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Methyl Acetate	NA	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	NR
Methyl Ethyl Ketone (2-Butanone)	50	NS	4.1 J	10 U	10 U	**130**	5.7 J	NR
Methylcyclohexane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Methylene Chloride	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Styrene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Tert-Butyl Methyl Ether	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Tetrachloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trans-1,2-Dichloroethene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trans-1,3-Dichloropropene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Trichloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Vinyl Chloride	2.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes	5.0	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

TABLE 1: SUMMARY OF TARGET COMPOUNDS ANALYTICAL RESULTS
GE POMPEY PILOT STUDY, NEW YORK

ANALYTE	NYSAWQS	EFFLUENT						
		02/08/22	02/16/22	02/22/22	03/10/22	03/24/22	03/30/22	04/06/22
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
1,4-Dioxane	50	NS	0.2 U	0.2 U	0.2 U	0.26	1.9	15
1,1,1-Trichloroethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1,2-Trichloroethane	1.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,1-Dichloroethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dibromo-3-Chloropropane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dibromoethane (Ethylene Dibromide)	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,2-Dichloropropane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
1,3-Dichlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
2-Hexanone	NA	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NR
Acetone	50	NS	10 U	10 U	10 U	10 U	10 U	NR
Benzene	1.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Bromodichloromethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Bromoform	50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Carbon Disulfide	NA	NS	1.0 U	1.0 U	0.22 J	1.7	1.0 U	NR
Carbon Tetrachloride	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chlorobenzene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloroethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloroform	7.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Chloromethane	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Cis-1,2-Dichloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cis-1,3-Dichloropropene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Cyclohexane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Dibromochloromethane	50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Dichlorodifluoromethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Ethylbenzene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene (Cumene)	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Methyl Acetate	NA	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	NR
Methyl Ethyl Ketone (2-Butanone)	50	NS	10 U	10 U	10 U	10 U	10 U	NR
Methylcyclohexane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Methylene Chloride	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Styrene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Tert-Butyl Methyl Ether	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Tetrachloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trans-1,2-Dichloroethene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trans-1,3-Dichloropropene	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Trichloroethylene	5.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	NA	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NR
Vinyl Chloride	2.0	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes	5.0	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

TABLE 1: SUMMARY OF TARGET COMPOUNDS ANALYTICAL RESULTS
GE POMPEY PILOT STUDY, NEW YORK

NOTE:

E - Value exceeded calibration value

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

T - Analyzed outside of holding time

U - Indicates the compound was analyzed but not detected.

µg/L - micrograms per liter which is equivalent to parts per billion (ppb)

NYSAWQS - New York State Class GA Ambient Water Quality Standard

Bold and yellow highlighted values exceed the compound'sNYSAWQS.

NA - Not Applicable

NR - Values not report by the analytical laboratory

APPENDICES

APPENDIX A
(SITE PHOTOGRAPHIC LOGS)

SITE PHOTOGRAPHIC LOG	
Photograph No.: 1 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: January 26, 2022 **Comments**: Arrival of packaged pilot test skid from Calgon Carbon Corporation	
Photograph No.: 2 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: January 26, 2022 **Comments**: Test skid being unboxed prior to system setup.	

SITE PHOTOGRAPHIC LOG	
Photograph No.: 3 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: January 26, 2022 **Comments**: Front view of the pilot test skid.	
Photograph No.: 4 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: January 26, 2022 **Comments**: Rear view of the pilot test skid.	

SITE PHOTOGRAPHIC LOG	
Photograph No.: 5 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: March 10, 2022 **Comments**: Broken regular valve on the skid during shipping.	
Photograph No.: 6 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: January 26, 2022 **Comments**: Broken check valve on the skid during shipping.	

SITE PHOTOGRAPHIC LOG	
Photograph No.: 7 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: January 26, 2022 **Comments**: Broken air release valve on the skid during shipping.	
Photograph No.: 8 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: March 18, 2022 **Comments**: Repaired damaged part of the pilot study test skid using putty and clamps to prevent leaks.	

SITE PHOTOGRAPHIC LOG	
Photograph No.: 9 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: March 18, 2022 **Comments**: Repaired damaged part of the pilot study test skid using putty and clamps to prevent leaks.	
Photograph No.: 10 **Project**: GE Pompey Pilot Study **Site Name**: Abandoned Solvent Center **Site Location**: Manlius, NY **Photo Date**: January 26, 2022 **Comments**: Presence of suspended materials above the GAC in the post-column 1.	

APPENDIX B
(FIELD FORMS)

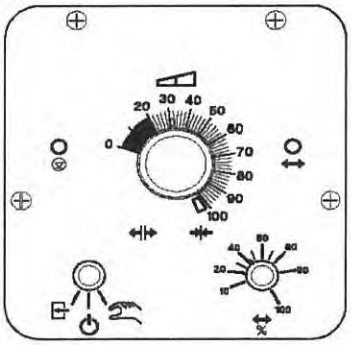
INSPECTION FORMS

Field Log Date: 02/08/2022, 15:25

Logs	Measurment	TARGET	Units	
FI-101	5.5	5.46	GPH	Average
FI-102	5.5	5.46	GPH	Average
Fi-103	5.6	5.46	GPH	Average

Pulsatron Pump	Actual	TARGET		
Stroke Length	22	22	%	Middle
Stroke Rate	65	100	%	Botttom right

change to 65



Note: Only adjust while the pump is running or it may damage the pump.

Totalizer : 134.3 gallons

Samples	Port	Sample ID	Date	Time	pH	Conductivity	Visual (Clear/Cloudy/Color)
Influent	SP C-1 IN						
Post Column 1	SP C-2 IN						
Post Column 2	SP C-3 IN						
Effluent	SP C-3 OUT						

Notes:

- flushed columns 1, 2, 3 till water clear.
- Set Column valves to Normal 15:25
- ~~Adjusted % to 22 at GPH~~
- Adjusted Stroke to 22 at rate to 65 to achieve 5.5 GPH

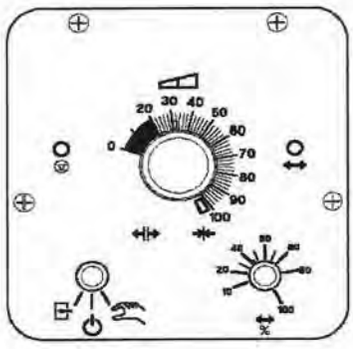
Field Log Date: 2/16/22

Column Totalizer: 401.1 gal

facility totalizer: 9051271 gal

Logs	Measurment	TARGET	Units	
FI-101	5.5	5.46	GPH	Average
FI-102	5.5	5.46	GPH	Average
Fi-103	5.5	5.46	GPH	Average

Pulsatron Pump	Actual	TARGET		
Stroke Length	24	22	%	Middle
Stroke Rate	100	65	%	Botttom right



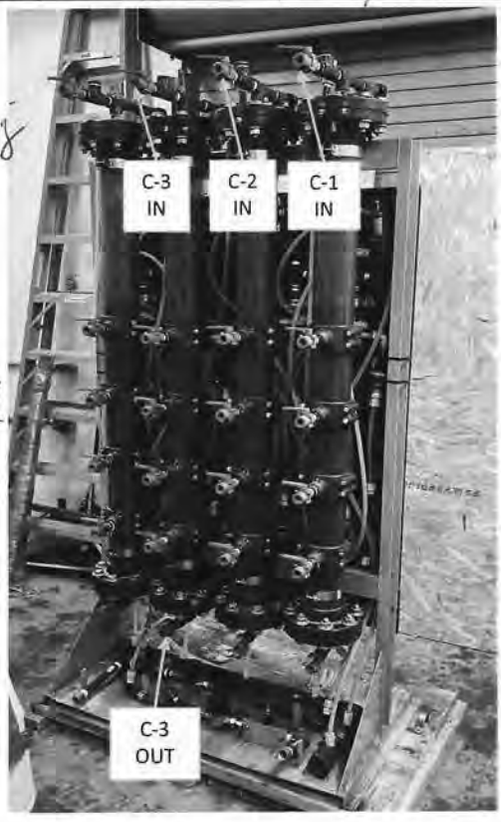
Note: Only adjust while the pump is running or it may damage the pump.

uS

Samples	Port	Sample ID	Date	Time	pH	Conductivity	Visual (Clear/Cloudy/Color)	
Influent	SP C-1 IN	C-1IN	02/16/22	14:30	7.22	3871	clear, colorless	8.9°C
Post Column 1	SP C-2 IN	C-2IN		14:50	7.50	3914	clear, colorless	9.4°C
Post Column 2	SP C-3 IN	C-3IN		15:40	7.94	3953	clear, colorless	9.7°C
Effluent	SP C-3 OUT	C-3OUT		16:40	7.44	4013	clear, colorless	10.3°C

Notes: When arrived Air stripper Sump pH alarm was on. The sump was overflowing + feed tank water high level alarm were on. Water was on floor. Inlet pump does not appear to be locked on.

Flow meters for Column were at 3 GPH when arrived. turned up pump to 100% Stroke Rate + 24% stroke length to achieve 5.5 GPH.

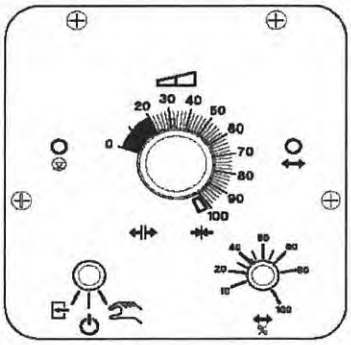


Field Log Date: 02-22-2022

Logs	Measurment	TARGET	Units	
FI-101	5.7	5.46	GPH	Average
FI-102	5.2	5.46	GPH	Average
Fi-103	5.5	5.46	GPH	Average

Totalizer: 1219.8

Pulsatron Pump	Actual	TARGET		
Stroke Length	22	22	%	Middle
Stroke Rate	90	65	%	Botttom right



Note: Only adjust while the pump is running or it may damage the pump.

Samples	Port	Sample ID	Date	Time	pH	Conductivity	Visual (Clear/Cloudy/Color)	
Influent	SP C-1 IN	Influent	02/22/22	11:50	7.11	2588	clear, colorless	12.7°C
Post Column 1	SP C-2 IN	Post Column 1	02/22/22	12:20	7.25	2804	clear, colorless	12.7°C
Post Column 2	SP C-3 IN	Post Column 2	02/22/22	12:40	7.42	2807	clear, colorless	12.8°C
Effluent	SP C-3 OUT	Effluent	02/22/22	13:00	7.62	2824	clear, colorless	13.1°C

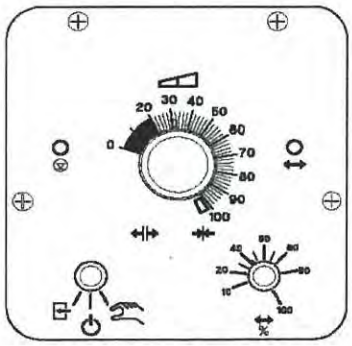
Notes: Post Column 2 taken from SPC-2 Out (no water coming from SPC-3 IN)

Field Log Date: 3-10-2022

Logs	Measurment	TARGET	Units	
FI-101	6.0	5.46	GPH	Average
FI-102	5.8	5.46	GPH	Average
Fi-103	6.0	5.46	GPH	Average

Totalizer: 28904

Pulsatron Pump	Actual	TARGET		
Stroke Length	22	22	%	Middle
Stroke Rate	79	65	%	Botttom right



Note: Only adjust while the pump is running or it may damage the pump.

Samples	Port	Sample ID	Date	Time	pH	Conductivity	Visual (Clear/Cloudy/Color)
Influent	SP C-1 IN	Influent	3-10-22	1813	7.23	2762	yellow, cloudy
Post Column 1	SP C-2 IN	Post Column 1	↓	1825	7.28	2792	clear
Post Column 2	SP C-3 IN	Post Column 2	↓	1850	7.41	3895	clear
Effluent	SP C-3 OUT	Effluent	↓	1900	7.55	2797	clear

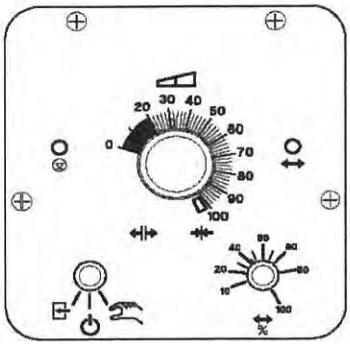
Notes: Sediment deposited at top 2" of carbon in Column 1

Field Log Date: 3/24/2022

Logs	Measurment	TARGET	Units	
FI-101	5.2	5.46	GPH	Average
FI-102	4.9	5.46	GPH	Average
Fi-103	5.0	5.46	GPH	Average

Totalizer: 4389.5

Pulsatron Pump	Actual	TARGET		
Stroke Length	20	22	%	Middle
Stroke Rate	70	65	%	Botttom right



Note: Only adjust while the pump is running or it may damage the pump.

Samples	Port	Sample ID	Date	Time	pH	Conductivity	Visual (Clear/Cloudy/Color)
Influent	SP C-1 IN	Influent	3-24-22	1555	7.13	2732	clear, colorless
Post Column 1	SP C-2 IN	Post column 1	↓	1605	7.24	2595	clear, colorless
Post Column 2	SP C-3 IN	Post column 2	↓	1612	7.05	2584	clear, colorless
Effluent	SP C-3 OUT	Effluent	↓	1630	7.06	2736	clear, colorless

Notes:

Adjusted stroke length to 22

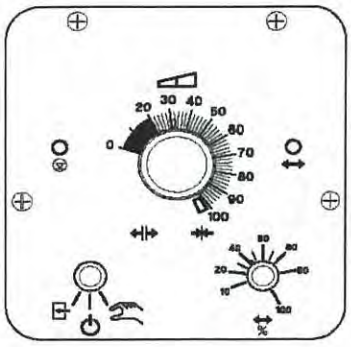
FI-101 5.4
FI-102 5.2
FI-103 5.4

Field Log Date: 3/30/2022

Logs	Measurment	TARGET	Units	
FI-101	5.8	5.46	GPH	Average
FI-102	5.6	5.46	GPH	Average
Fi-103	6.0	5.46	GPH	Average

Totalizer: 5261.9

Pulsatron Pump	Actual	TARGET		
Stroke Length	22	22	%	Middle
Stroke Rate	65	65	%	Botttom right



Note: Only adjust while the pump is running or it may damage the pump.

Samples	Port	Sample ID	Date	Time	pH	Conductivity	Visual (Clear/Cloudy/Color)
Influent	SP C-1 IN	Influent	3/30/22	1735	7.24	2449	slightly cloudy, yellowish
Post Column 1	SP C-2 IN	Post column 1	↓	1746	7.33	2430	clear, colorless
Post Column 2	SP C-3 IN	Post Column 2	↓	1753	7.20	2436	↓
Effluent	SP C-3 OUT	Effluent	↓	1805	7.33	2468	↓

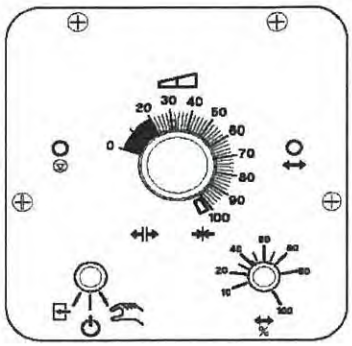
Notes: Column slowly leaking at bottom - not affecting water retention in colums.

Field Log Date: 04/06/22, 9:57

Logs	Measurment	TARGET	Units	
FI-101	5.5	5.46	GPH	Average
FI-102	5.5	5.46	GPH	Average
Fi-103	5.5	5.46	GPH	Average

Totalizer: 7071.3 gal

Pulsatron Pump	Actual	TARGET		
Stroke Length	22	22	%	Middle
Stroke Rate	71	65	%	Botttom right



Note: Only adjust while the pump is running or it may damage the pump.

Samples	Port	Sample ID	Date	Time	pH	Conductivity (µS)	Visual (Clear/Cloudy/Color)	°C
Influent	SP C-1 IN	Influent	04/6/22	10:02	6.85	2412	clear, slight yellow	12.5°C
Post Column 1	SP C-2 IN	PostColumn1	4/6/22	12:57	7.20	2413	clear, colorless	13°C
Post Column 2	SP C-3 IN	PostColumn2	4/6/22	13:10	7.26	2448	clear, colorless	12.5
Effluent	SP C-3 OUT	Effluent	4/6/22	13:16	7.20	2436	clear, colorless	13.1

Notes:

CHAIN OF CUSTODY FORMS

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: J. Wolff-Schneider	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.1
Client Contact: Ms. Bailey Kudla-Williams	Phone: 646-246-3823	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin: NY	Page: Page 1 of 5
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested: normal TAT			
City: Rochester	TAT Requested (days): normal TAT			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
~~C-1~~ IN-JBW Influent	02/16/22	14:30	G	Water			X	X	5	
~~C-2~~ IN-JBW Post Column 1	02/16/22	14:50	G	Water			X	X	5	
~~C-3~~ IN-JBW Post Column 2	02/16/22	15:20	G	Water			X	X	5	
~~C-4~~ OUT-JBW Effluent	02/16/22	16:40	G	Water			X	X	5	
TRIP BLANK	—	—	—	Water			X			
				Water						
				Water						
02/16/22-JBW				Water						
				Water						
				Water						
				Water						

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		02/16/22 1830			2-16-22, 18:10	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: J. Wolff-Schneider	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.2
Client Contact: Ms. Bailey Kudla-Williams	Phone: 646-248-3823	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin: NY	Page: Page 2 of 5
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested: Normal TAT			
City: Rochester	TAT Requested (days): Normal TAT			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
Influent	02/22/22	11:50	G	Water			X	X	5	
Post Column 1	02/22/22	12:20	G	Water			X	X	5	
Post Column 2	02/22/22	12:40	G	Water			X	X	5	
Effluent	02/22/22	13:00	G	Water			X	X	5	
Trip Blank	—	—	—	Water					1	
				Water						
				Water						
JW				Water						
2/22/22				Water						
				Water						
				Water						

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 02/22/22	Time: 15:07	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		02/22/22 15:07			2/22/22 1507	ES-SIR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bailey Kudla-Williams	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.3
Client Contact: Ms. Bailey Kudla-Williams	Phone: 805-501-8053	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: ~~Page 3 of 3~~ 1 of 1
Company: Tetra Tech GEO	PWSID:	Analysis Requested		Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:			Preservation Codes:
City: Rochester	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			Other:
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	A	X	
Influent	3-10-22	1813	G	Water			X	X	5	
Post Column 1	↓	1825	G	Water			X	X	5	
Post Column 2		1850	G	Water			X	X	5	
Effluent		1900	G	Water			X	X	5	
Trip Blank	—	—	—	Water				X	1	
				Water						
				Water						
				Water						
BKW				Water						
				Water						
				Water						

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bailey Kudla-Williams	03/11/22, 09:25		[illegible]	3/11/22 9:25	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Bailey Kudla-Williams	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.4
Client Contact: Ms. Bailey Kudla-Williams	Phone: 805-501-8053	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: ~~Page 4 of 5~~ 1 of 1
Company: Tetra Tech GEO	PWSID:	**Analysis Requested**		Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:			
City: Rochester	TAT Requested (days): Standard			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	A		
Influent	3-24-22	1555	G	Water			X	X	5	
Post Column 1	↓	1605	G	Water			X	X	5	
Post Column 2	↓	1612	G	Water			X	X	5	
Effluent	↓	1630	G	Water			X	X	5	
Trip Blank	—	—	—	Water				X	1	
				Water						
				Water						
BKW				Water						
				Water						
				Water						
				Water						

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3-24-22 1825	TT	[signature]	3-24-22, 1825	[illegible]
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Bailey Kudla-Williams	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.5
Client Contact: Ms. Bailey Kudla-Williams	Phone: 805-501-8053	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: Page ~~5 of 5~~ 1 of 1
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:			
City: Rochester	TAT Requested (days): Standard			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
Influent	3/30/22	1735	G	Water			X	X	5	
Post Column 1	↓	1745	G	↓			X	X	5	
Post Column 2		1753	G				X	X	5	
Effluent		1805	G				X	X	5	
Trip Blank	—	—	—	water				X	1	

480-196310 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bailey Kudla-Williams	3/30/22 1856	TT	R English	3-30-22, 1857	Syr
2	R English	3-31-22, 1900	Syr		4-1-22 800	TT
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 22 ICE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Jon Wolff-Sheidler	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-172378-37315.1
Client Contact: Ms. Bailey Kudla-Williams	Phone: 646-248-3523	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:			
City: Rochester	TAT Requested (days):			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 262-792-1282(Tel)	PO #: 117.2204205.01			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey - method 522	Project #: 48002897			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	522_PREP_1,4-Dioxane_Low	8270D_SIM_MS_1,4-Dioxane	8260C - TCL List OLM04.2	Total Number of containers	Special Instructions/Note:
	Preservation Code:										
Influent	04/06/22	10:01	G	Water				X	X	5	
Post Column 1	↓	12:57	↓	Water				X	X	5	
Post Column 2		13:10		Water				X	X	5	
Effluent		13:16		Water				X	X	5	
Trip Blank	–	–	–	Water				X	X	2	
				Water							
				Water							

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		04/06/22, 17:40			4-6-22, 17:40	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

APPENDIX C
(COMPLETE LABORATORY ANALYTICAL RESULTS)

FEBRUARY 8, 2022 COMLPLETE ANALYTICAL RESULTS

No Analytical Results Presented

FEBRUARY 16, 2022 COMLPLETE ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-195073-1
Client Project/Site: GE Pompey, NY Investigation

For:
Tetra Tech GEO
3136 South Winton Road
Suite 303
Rochester, New York 14623

Attn: Ms. Bailey Kudla-Williams

Authorized for release by:
2/24/2022 2:55:06 PM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-195073-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-195073-1

Comments
No additional comments.

Receipt
The samples were received on 2/17/2022 8:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.6º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: INFLUENT (480-195073-1). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-615343 recovered above the upper control limit for Carbon tetrachloride and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: INFLUENT (480-195073-1), POST COLUMN 1 (480-195073-2), POST COLUMN 2 (480-195073-3), EFFLUENT (480-195073-4) and TRIP BLANK (480-195073-5).

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

GC/MS Semi VOA
Method 8270D SIM ID: The 1,4-Dioxane result reported for sample INFLUENT (480-195073-1) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

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

Detection Summary

Client: Tetra Tech GEO
Job ID: 480-195073-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: INFLUENT — Lab Sample ID: 480-195073-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.5		5.0	4.1	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	37		5.0	1.9	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	200		5.0	4.1	ug/L	5		8260C	Total/NA
Trichloroethene	7.7		5.0	2.3	ug/L	5		8260C	Total/NA
1,4-Dioxane	61	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 1 — Lab Sample ID: 480-195073-2

No Detections.

Client Sample ID: POST COLUMN 2 — Lab Sample ID: 480-195073-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.1	J	10	1.3	ug/L	1		8260C	Total/NA

Client Sample ID: EFFLUENT — Lab Sample ID: 480-195073-4

No Detections.

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-195073-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Client Sample ID: INFLUENT
Date Collected: 02/16/22 14:30
Date Received: 02/17/22 08:30

Lab Sample ID: 480-195073-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**6.5**		5.0	4.1	ug/L			02/18/22 12:50	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			02/18/22 12:50	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			02/18/22 12:50	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			02/18/22 12:50	5
1,1-Dichloroethane	**37**		5.0	1.9	ug/L			02/18/22 12:50	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			02/18/22 12:50	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			02/18/22 12:50	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			02/18/22 12:50	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			02/18/22 12:50	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			02/18/22 12:50	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			02/18/22 12:50	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			02/18/22 12:50	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			02/18/22 12:50	5
2-Butanone (MEK)	ND		50	6.6	ug/L			02/18/22 12:50	5
2-Hexanone	ND		25	6.2	ug/L			02/18/22 12:50	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			02/18/22 12:50	5
Acetone	ND		50	15	ug/L			02/18/22 12:50	5
Benzene	ND		5.0	2.1	ug/L			02/18/22 12:50	5
Bromodichloromethane	ND		5.0	2.0	ug/L			02/18/22 12:50	5
Bromoform	ND		5.0	1.3	ug/L			02/18/22 12:50	5
Bromomethane	ND		5.0	3.5	ug/L			02/18/22 12:50	5
Carbon disulfide	ND		5.0	0.95	ug/L			02/18/22 12:50	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			02/18/22 12:50	5
Chlorobenzene	ND		5.0	3.8	ug/L			02/18/22 12:50	5
Dibromochloromethane	ND		5.0	1.6	ug/L			02/18/22 12:50	5
Chloroethane	ND		5.0	1.6	ug/L			02/18/22 12:50	5
Chloroform	ND		5.0	1.7	ug/L			02/18/22 12:50	5
Chloromethane	ND		5.0	1.8	ug/L			02/18/22 12:50	5
cis-1,2-Dichloroethene	**200**		5.0	4.1	ug/L			02/18/22 12:50	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			02/18/22 12:50	5
Cyclohexane	ND		5.0	0.90	ug/L			02/18/22 12:50	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			02/18/22 12:50	5
Ethylbenzene	ND		5.0	3.7	ug/L			02/18/22 12:50	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			02/18/22 12:50	5
Isopropylbenzene	ND		5.0	4.0	ug/L			02/18/22 12:50	5
Methyl acetate	ND		13	6.5	ug/L			02/18/22 12:50	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			02/18/22 12:50	5
Methylcyclohexane	ND		5.0	0.80	ug/L			02/18/22 12:50	5
Methylene Chloride	ND		5.0	2.2	ug/L			02/18/22 12:50	5
Styrene	ND		5.0	3.7	ug/L			02/18/22 12:50	5
Tetrachloroethene	ND		5.0	1.8	ug/L			02/18/22 12:50	5
Toluene	ND		5.0	2.6	ug/L			02/18/22 12:50	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			02/18/22 12:50	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			02/18/22 12:50	5
Trichloroethene	**7.7**		5.0	2.3	ug/L			02/18/22 12:50	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			02/18/22 12:50	5
Vinyl chloride	ND		5.0	4.5	ug/L			02/18/22 12:50	5
Xylenes, Total	ND		10	3.3	ug/L			02/18/22 12:50	5

Client Sample ID: INFLUENT
Lab Sample ID: 480-195073-1

Date Collected: 02/16/22 14:30
Matrix: Water
Date Received: 02/17/22 08:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*02/18/22 12:50*	*5*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*02/18/22 12:50*	*5*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*		*02/18/22 12:50*	*5*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*02/18/22 12:50*	*5*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	61	E	0.20	0.10	ug/L		02/18/22 15:08	02/21/22 21:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*21*		*15 - 110*	*02/18/22 15:08*	*02/21/22 21:22*	*1*

Client Sample ID: POST COLUMN 1
Lab Sample ID: 480-195073-2

Date Collected: 02/16/22 14:50
Matrix: Water
Date Received: 02/17/22 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/18/22 13:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/18/22 13:34	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/18/22 13:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/18/22 13:34	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/18/22 13:34	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/18/22 13:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/18/22 13:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/18/22 13:34	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/18/22 13:34	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/18/22 13:34	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/18/22 13:34	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/18/22 13:34	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/18/22 13:34	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/18/22 13:34	1
2-Hexanone	ND		5.0	1.2	ug/L			02/18/22 13:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/18/22 13:34	1
Acetone	ND		10	3.0	ug/L			02/18/22 13:34	1
Benzene	ND		1.0	0.41	ug/L			02/18/22 13:34	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/18/22 13:34	1
Bromoform	ND		1.0	0.26	ug/L			02/18/22 13:34	1
Bromomethane	ND		1.0	0.69	ug/L			02/18/22 13:34	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/18/22 13:34	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/18/22 13:34	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/18/22 13:34	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/18/22 13:34	1
Chloroethane	ND		1.0	0.32	ug/L			02/18/22 13:34	1
Chloroform	ND		1.0	0.34	ug/L			02/18/22 13:34	1
Chloromethane	ND		1.0	0.35	ug/L			02/18/22 13:34	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/18/22 13:34	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/18/22 13:34	1
Cyclohexane	ND		1.0	0.18	ug/L			02/18/22 13:34	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/18/22 13:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/18/22 13:34	1

Client Sample ID: POST COLUMN 1

Lab Sample ID: 480-195073-2

Date Collected: 02/16/22 14:50

Matrix: Water

Date Received: 02/17/22 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/18/22 13:34	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/18/22 13:34	1
Methyl acetate	ND		2.5	1.3	ug/L			02/18/22 13:34	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/18/22 13:34	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/18/22 13:34	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/18/22 13:34	1
Styrene	ND		1.0	0.73	ug/L			02/18/22 13:34	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/18/22 13:34	1
Toluene	ND		1.0	0.51	ug/L			02/18/22 13:34	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/18/22 13:34	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/18/22 13:34	1
Trichloroethene	ND		1.0	0.46	ug/L			02/18/22 13:34	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/18/22 13:34	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/18/22 13:34	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/18/22 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*02/18/22 13:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*02/18/22 13:34*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*02/18/22 13:34*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*02/18/22 13:34*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		02/18/22 15:08	02/21/22 21:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*23*		*15 - 110*	*02/18/22 15:08*	*02/21/22 21:44*	*1*

Client Sample ID: POST COLUMN 2

Lab Sample ID: 480-195073-3

Date Collected: 02/16/22 15:20

Matrix: Water

Date Received: 02/17/22 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/18/22 13:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/18/22 13:12	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/18/22 13:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/18/22 13:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/18/22 13:12	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/18/22 13:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/18/22 13:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/18/22 13:12	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/18/22 13:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/18/22 13:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/18/22 13:12	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/18/22 13:12	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/18/22 13:12	1
2-Butanone (MEK)	**4.1**	**J**	10	1.3	ug/L			02/18/22 13:12	1
2-Hexanone	ND		5.0	1.2	ug/L			02/18/22 13:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/18/22 13:12	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Client Sample ID: POST COLUMN 2
Date Collected: 02/16/22 15:20
Date Received: 02/17/22 08:30

Lab Sample ID: 480-195073-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			02/18/22 13:12	1
Benzene	ND		1.0	0.41	ug/L			02/18/22 13:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/18/22 13:12	1
Bromoform	ND		1.0	0.26	ug/L			02/18/22 13:12	1
Bromomethane	ND		1.0	0.69	ug/L			02/18/22 13:12	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/18/22 13:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/18/22 13:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/18/22 13:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/18/22 13:12	1
Chloroethane	ND		1.0	0.32	ug/L			02/18/22 13:12	1
Chloroform	ND		1.0	0.34	ug/L			02/18/22 13:12	1
Chloromethane	ND		1.0	0.35	ug/L			02/18/22 13:12	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/18/22 13:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/18/22 13:12	1
Cyclohexane	ND		1.0	0.18	ug/L			02/18/22 13:12	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/18/22 13:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/18/22 13:12	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/18/22 13:12	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/18/22 13:12	1
Methyl acetate	ND		2.5	1.3	ug/L			02/18/22 13:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/18/22 13:12	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/18/22 13:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/18/22 13:12	1
Styrene	ND		1.0	0.73	ug/L			02/18/22 13:12	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/18/22 13:12	1
Toluene	ND		1.0	0.51	ug/L			02/18/22 13:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/18/22 13:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/18/22 13:12	1
Trichloroethene	ND		1.0	0.46	ug/L			02/18/22 13:12	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/18/22 13:12	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/18/22 13:12	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/18/22 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*02/18/22 13:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*02/18/22 13:12*	*1*
4-Bromofluorobenzene (Surr)	*115*		*73 - 120*		*02/18/22 13:12*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*02/18/22 13:12*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		02/18/22 15:08	02/21/22 22:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*02/18/22 15:08*	*02/21/22 22:05*	*1*

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Client Sample ID: EFFLUENT
Date Collected: 02/16/22 16:40
Date Received: 02/17/22 08:30

Lab Sample ID: 480-195073-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/18/22 13:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/18/22 13:56	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/18/22 13:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/18/22 13:56	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/18/22 13:56	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/18/22 13:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/18/22 13:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/18/22 13:56	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/18/22 13:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/18/22 13:56	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/18/22 13:56	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/18/22 13:56	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/18/22 13:56	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/18/22 13:56	1
2-Hexanone	ND		5.0	1.2	ug/L			02/18/22 13:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/18/22 13:56	1
Acetone	ND		10	3.0	ug/L			02/18/22 13:56	1
Benzene	ND		1.0	0.41	ug/L			02/18/22 13:56	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/18/22 13:56	1
Bromoform	ND		1.0	0.26	ug/L			02/18/22 13:56	1
Bromomethane	ND		1.0	0.69	ug/L			02/18/22 13:56	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/18/22 13:56	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/18/22 13:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/18/22 13:56	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/18/22 13:56	1
Chloroethane	ND		1.0	0.32	ug/L			02/18/22 13:56	1
Chloroform	ND		1.0	0.34	ug/L			02/18/22 13:56	1
Chloromethane	ND		1.0	0.35	ug/L			02/18/22 13:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/18/22 13:56	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/18/22 13:56	1
Cyclohexane	ND		1.0	0.18	ug/L			02/18/22 13:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/18/22 13:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/18/22 13:56	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/18/22 13:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/18/22 13:56	1
Methyl acetate	ND		2.5	1.3	ug/L			02/18/22 13:56	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/18/22 13:56	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/18/22 13:56	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/18/22 13:56	1
Styrene	ND		1.0	0.73	ug/L			02/18/22 13:56	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/18/22 13:56	1
Toluene	ND		1.0	0.51	ug/L			02/18/22 13:56	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/18/22 13:56	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/18/22 13:56	1
Trichloroethene	ND		1.0	0.46	ug/L			02/18/22 13:56	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/18/22 13:56	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/18/22 13:56	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/18/22 13:56	1

Client Sample ID: EFFLUENT

Lab Sample ID: 480-195073-4

Date Collected: 02/16/22 16:40

Matrix: Water

Date Received: 02/17/22 08:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/18/22 13:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*02/18/22 13:56*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*02/18/22 13:56*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*02/18/22 13:56*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		02/18/22 15:08	02/21/22 22:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*02/18/22 15:08*	*02/21/22 22:26*	*1*

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-195073-5

Date Collected: 02/16/22 00:00

Matrix: Water

Date Received: 02/17/22 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/18/22 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/18/22 14:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/18/22 14:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/18/22 14:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/18/22 14:18	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/18/22 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/18/22 14:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/18/22 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/18/22 14:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/18/22 14:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/18/22 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/18/22 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/18/22 14:18	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/18/22 14:18	1
2-Hexanone	ND		5.0	1.2	ug/L			02/18/22 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/18/22 14:18	1
Acetone	ND		10	3.0	ug/L			02/18/22 14:18	1
Benzene	ND		1.0	0.41	ug/L			02/18/22 14:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/18/22 14:18	1
Bromoform	ND		1.0	0.26	ug/L			02/18/22 14:18	1
Bromomethane	ND		1.0	0.69	ug/L			02/18/22 14:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/18/22 14:18	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/18/22 14:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/18/22 14:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/18/22 14:18	1
Chloroethane	ND		1.0	0.32	ug/L			02/18/22 14:18	1
Chloroform	ND		1.0	0.34	ug/L			02/18/22 14:18	1
Chloromethane	ND		1.0	0.35	ug/L			02/18/22 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/18/22 14:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/18/22 14:18	1
Cyclohexane	ND		1.0	0.18	ug/L			02/18/22 14:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/18/22 14:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/18/22 14:18	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Client Sample ID: TRIP BLANK
Date Collected: 02/16/22 00:00
Date Received: 02/17/22 08:30

Lab Sample ID: 480-195073-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/18/22 14:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/18/22 14:18	1
Methyl acetate	ND		2.5	1.3	ug/L			02/18/22 14:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/18/22 14:18	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/18/22 14:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/18/22 14:18	1
Styrene	ND		1.0	0.73	ug/L			02/18/22 14:18	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/18/22 14:18	1
Toluene	ND		1.0	0.51	ug/L			02/18/22 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/18/22 14:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/18/22 14:18	1
Trichloroethene	ND		1.0	0.46	ug/L			02/18/22 14:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/18/22 14:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/18/22 14:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/18/22 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*02/18/22 14:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*02/18/22 14:18*	*1*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*02/18/22 14:18*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*02/18/22 14:18*	*1*

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-195073-1	INFLUENT	99	96	114	102
480-195073-2	POST COLUMN 1	101	98	110	105
480-195073-3	POST COLUMN 2	96	97	115	100
480-195073-4	EFFLUENT	102	99	110	106
480-195073-5	TRIP BLANK	101	101	111	106
LCS 480-615343/5	Lab Control Sample	99	96	109	102
MB 480-615343/7	Method Blank	97	96	113	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Isotope Dilution Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		DXE						
Lab Sample ID	Client Sample ID	(15-110)						
480-195073-1	INFLUENT	21						
480-195073-2	POST COLUMN 1	23						
480-195073-3	POST COLUMN 2	27						
480-195073-4	EFFLUENT	25						
LCS 480-615430/2-A	Lab Control Sample	28						
MB 480-615430/1-A	Method Blank	29						

Surrogate Legend

DXE = 1,4-Dioxane-d8

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

Lab Sample ID: MB 480-615343/7
Matrix: Water
Analysis Batch: 615343

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/18/22 11:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/18/22 11:31	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/18/22 11:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/18/22 11:31	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/18/22 11:31	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/18/22 11:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/18/22 11:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/18/22 11:31	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/18/22 11:31	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/18/22 11:31	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/18/22 11:31	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/18/22 11:31	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/18/22 11:31	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/18/22 11:31	1
2-Hexanone	ND		5.0	1.2	ug/L			02/18/22 11:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/18/22 11:31	1
Acetone	ND		10	3.0	ug/L			02/18/22 11:31	1
Benzene	ND		1.0	0.41	ug/L			02/18/22 11:31	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/18/22 11:31	1
Bromoform	ND		1.0	0.26	ug/L			02/18/22 11:31	1
Bromomethane	ND		1.0	0.69	ug/L			02/18/22 11:31	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/18/22 11:31	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/18/22 11:31	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/18/22 11:31	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/18/22 11:31	1
Chloroethane	ND		1.0	0.32	ug/L			02/18/22 11:31	1
Chloroform	ND		1.0	0.34	ug/L			02/18/22 11:31	1
Chloromethane	ND		1.0	0.35	ug/L			02/18/22 11:31	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/18/22 11:31	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/18/22 11:31	1
Cyclohexane	ND		1.0	0.18	ug/L			02/18/22 11:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/18/22 11:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/18/22 11:31	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/18/22 11:31	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/18/22 11:31	1
Methyl acetate	ND		2.5	1.3	ug/L			02/18/22 11:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/18/22 11:31	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/18/22 11:31	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/18/22 11:31	1
Styrene	ND		1.0	0.73	ug/L			02/18/22 11:31	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/18/22 11:31	1
Toluene	ND		1.0	0.51	ug/L			02/18/22 11:31	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/18/22 11:31	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/18/22 11:31	1
Trichloroethene	ND		1.0	0.46	ug/L			02/18/22 11:31	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/18/22 11:31	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/18/22 11:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/18/22 11:31	1

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

Lab Sample ID: MB 480-615343/7
Matrix: Water
Analysis Batch: 615343

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*97*		*80 - 120*		*02/18/22 11:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*02/18/22 11:31*	*1*
4-Bromofluorobenzene (Surr)	*113*		*73 - 120*		*02/18/22 11:31*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*02/18/22 11:31*	*1*

Lab Sample ID: LCS 480-615343/5
Matrix: Water
Analysis Batch: 615343

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.5		ug/L		98	76 - 120
1,1,2-Trichloroethane	25.0	25.9		ug/L		103	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.5		ug/L		110	61 - 148
1,1-Dichloroethane	25.0	25.1		ug/L		101	77 - 120
1,1-Dichloroethene	25.0	27.4		ug/L		110	66 - 127
1,2,4-Trichlorobenzene	25.0	24.7		ug/L		99	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.0		ug/L		88	56 - 134
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	24.0		ug/L		96	75 - 120
1,2-Dichloropropane	25.0	26.7		ug/L		107	76 - 120
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	77 - 120
1,4-Dichlorobenzene	25.0	25.5		ug/L		102	80 - 120
2-Butanone (MEK)	125	116		ug/L		92	57 - 140
2-Hexanone	125	133		ug/L		107	65 - 127
4-Methyl-2-pentanone (MIBK)	125	112		ug/L		89	71 - 125
Acetone	125	131		ug/L		104	56 - 142
Benzene	25.0	26.2		ug/L		105	71 - 124
Bromodichloromethane	25.0	27.7		ug/L		111	80 - 122
Bromoform	25.0	29.3		ug/L		117	61 - 132
Bromomethane	25.0	30.4		ug/L		122	55 - 144
Carbon disulfide	25.0	27.3		ug/L		109	59 - 134
Carbon tetrachloride	25.0	30.2		ug/L		121	72 - 134
Chlorobenzene	25.0	26.5		ug/L		106	80 - 120
Dibromochloromethane	25.0	28.5		ug/L		114	75 - 125
Chloroethane	25.0	25.1		ug/L		101	69 - 136
Chloroform	25.0	25.1		ug/L		101	73 - 127
Chloromethane	25.0	23.6		ug/L		94	68 - 124
cis-1,2-Dichloroethene	25.0	26.6		ug/L		106	74 - 124
cis-1,3-Dichloropropene	25.0	28.3		ug/L		113	74 - 124
Cyclohexane	25.0	25.7		ug/L		103	59 - 135
Dichlorodifluoromethane	25.0	27.6		ug/L		110	59 - 135
Ethylbenzene	25.0	26.3		ug/L		105	77 - 123
1,2-Dibromoethane	25.0	26.2		ug/L		105	77 - 120
Isopropylbenzene	25.0	25.2		ug/L		101	77 - 122
Methyl acetate	50.0	41.9		ug/L		84	74 - 133
Methyl tert-butyl ether	25.0	26.0		ug/L		104	77 - 120
Methylcyclohexane	25.0	27.0		ug/L		108	68 - 134

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

Lab Sample ID: LCS 480-615343/5
Matrix: Water
Analysis Batch: 615343

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	25.0	27.4		ug/L		110	75 - 124
Styrene	25.0	27.7		ug/L		111	80 - 120
Tetrachloroethene	25.0	26.7		ug/L		107	74 - 122
Toluene	25.0	25.6		ug/L		103	80 - 122
trans-1,2-Dichloroethene	25.0	26.6		ug/L		106	73 - 127
trans-1,3-Dichloropropene	25.0	26.4		ug/L		106	80 - 120
Trichloroethene	25.0	26.6		ug/L		106	74 - 123
Trichlorofluoromethane	25.0	28.9		ug/L		116	62 - 150
Vinyl chloride	25.0	27.9		ug/L		112	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-615430/1-A
Matrix: Water
Analysis Batch: 615542

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		02/18/22 15:08	02/21/22 17:47	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*02/18/22 15:08*	*02/21/22 17:47*	*1*

Lab Sample ID: LCS 480-615430/2-A
Matrix: Water
Analysis Batch: 615542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	2.15		ug/L		108	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*28*		*15 - 110*

QC Association Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

GC/MS VOA

Analysis Batch: 615343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195073-1	INFLUENT	Total/NA	Water	8260C	
480-195073-2	POST COLUMN 1	Total/NA	Water	8260C	
480-195073-3	POST COLUMN 2	Total/NA	Water	8260C	
480-195073-4	EFFLUENT	Total/NA	Water	8260C	
480-195073-5	TRIP BLANK	Total/NA	Water	8260C	
MB 480-615343/7	Method Blank	Total/NA	Water	8260C	
LCS 480-615343/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 615430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195073-1	INFLUENT	Total/NA	Water	3510C	
480-195073-2	POST COLUMN 1	Total/NA	Water	3510C	
480-195073-3	POST COLUMN 2	Total/NA	Water	3510C	
480-195073-4	EFFLUENT	Total/NA	Water	3510C	
MB 480-615430/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-615430/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 615542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195073-1	INFLUENT	Total/NA	Water	8270D SIM ID	615430
480-195073-2	POST COLUMN 1	Total/NA	Water	8270D SIM ID	615430
480-195073-3	POST COLUMN 2	Total/NA	Water	8270D SIM ID	615430
480-195073-4	EFFLUENT	Total/NA	Water	8270D SIM ID	615430
MB 480-615430/1-A	Method Blank	Total/NA	Water	8270D SIM ID	615430
LCS 480-615430/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	615430

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 480-195073-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: INFLUENT
Lab Sample ID: 480-195073-1
Date Collected: 02/16/22 14:30
Matrix: Water
Date Received: 02/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	615343	02/18/22 12:50	AXK	TAL BUF
Total/NA	Prep	3510C			615430	02/18/22 15:08	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	615542	02/21/22 21:22	RJS	TAL BUF

Client Sample ID: POST COLUMN 1
Lab Sample ID: 480-195073-2
Date Collected: 02/16/22 14:50
Matrix: Water
Date Received: 02/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615343	02/18/22 13:34	AXK	TAL BUF
Total/NA	Prep	3510C			615430	02/18/22 15:08	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	615542	02/21/22 21:44	RJS	TAL BUF

Client Sample ID: POST COLUMN 2
Lab Sample ID: 480-195073-3
Date Collected: 02/16/22 15:20
Matrix: Water
Date Received: 02/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615343	02/18/22 13:12	AXK	TAL BUF
Total/NA	Prep	3510C			615430	02/18/22 15:08	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	615542	02/21/22 22:05	RJS	TAL BUF

Client Sample ID: EFFLUENT
Lab Sample ID: 480-195073-4
Date Collected: 02/16/22 16:40
Matrix: Water
Date Received: 02/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615343	02/18/22 13:56	AXK	TAL BUF
Total/NA	Prep	3510C			615430	02/18/22 15:08	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	615542	02/21/22 22:26	RJS	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-195073-5
Date Collected: 02/16/22 00:00
Matrix: Water
Date Received: 02/17/22 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615343	02/18/22 14:18	AXK	TAL BUF

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-195073-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-NY044	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,4-Dichlorobenzene
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone (MIBK)
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Bromomethane
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Cyclohexane
8260C		Water	Dibromochloromethane
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethylbenzene
8260C		Water	Isopropylbenzene
8260C		Water	Methyl acetate
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylcyclohexane
8260C		Water	Methylene Chloride
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-195073-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total
8270D SIM ID	3510C	Water	1,4-Dioxane

Method Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195073-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-195073-1	INFLUENT	Water	02/16/22 14:30	02/17/22 08:30
480-195073-2	POST COLUMN 1	Water	02/16/22 14:50	02/17/22 08:30
480-195073-3	POST COLUMN 2	Water	02/16/22 15:20	02/17/22 08:30
480-195073-4	EFFLUENT	Water	02/16/22 16:40	02/17/22 08:30
480-195073-5	TRIP BLANK	Water	02/16/22 00:00	02/17/22 08:30

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: J. Wolff-Schneider	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.1
Client Contact: Ms. Bailey Kudla-Williams	Phone: 646-246-3823	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin: NY	Page: Page 1 of 5
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested: normal TAT			
City: Rochester	TAT Requested (days): normal TAT			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
~~C-1~~ INFJBW Influent	02/16/22	14:30	G	Water			X	X	5	
C-2~~X~~ NJBW Post Column 1	02/16/22	14:50	G	Water			X	X	5	
C-3~~IN~~JBW Post Column 2	02/16/22	15:20	G	Water			X	X	5	
C-~~3~~4~~OUT~~JBW Effluent	02/16/22	16:40	G	Water			X	X	5	
TRIP BLANK	—	—	—	Water			X			
				Water						
				Water						
02/16/22 JBW				Water						
				Water						
				Water						
				Water						

480-195073 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
1		02/16/22 18:10		Received by:	2-16-22 18:10	
2	Relinquished by:	Date/Time: 2-16-22 18:10	Company	Received by:	Date/Time: 2-17-22 8:30	Company TTAB
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.1 ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 480-195073-1

Login Number: 195073

List Source: Eurofins Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	tetra tech
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

FEBRUARY 22, 2022 COMLPLETE ANALYTICAL RESULTS

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ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-195229-1
Client Project/Site: GE Pompey, NY Investigation

For:
Tetra Tech GEO
3136 South Winton Road
Suite 303
Rochester, New York 14623

Attn: Ms. Bailey Kudla-Williams

Authorized for release by:
2/28/2022 1:59:49 PM

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-195229-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-195229-1

Comments
No additional comments.

Receipt
The samples were received on 2/23/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: INFLUENT (480-195229-1), (480-195229-C-1 MS) and (480-195229-C-1 MSD). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method 8270D SIM ID: The 1,4-Dioxane result reported for sample INFLUENT (480-195229-1) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-615911.

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

Detection Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Client Sample ID: INFLUENT — Lab Sample ID: 480-195229-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	22		4.0	1.5	ug/L	4		8260C	Total/NA
Chloroform	1.5	J	4.0	1.4	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	140		4.0	3.2	ug/L	4		8260C	Total/NA
Trichloroethene	4.6		4.0	1.8	ug/L	4		8260C	Total/NA
1,4-Dioxane	71	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 1 — Lab Sample ID: 480-195229-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.66		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 2 — Lab Sample ID: 480-195229-3

No Detections.

Client Sample ID: EFFLUENT — Lab Sample ID: 480-195229-4

No Detections.

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-195229-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Client Sample ID: INFLUENT

Date Collected: 02/22/22 11:50
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			02/23/22 18:04	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			02/23/22 18:04	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			02/23/22 18:04	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			02/23/22 18:04	4
1,1-Dichloroethane	**22**		4.0	1.5	ug/L			02/23/22 18:04	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			02/23/22 18:04	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			02/23/22 18:04	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			02/23/22 18:04	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			02/23/22 18:04	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			02/23/22 18:04	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			02/23/22 18:04	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			02/23/22 18:04	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			02/23/22 18:04	4
2-Butanone (MEK)	ND		40	5.3	ug/L			02/23/22 18:04	4
2-Hexanone	ND		20	5.0	ug/L			02/23/22 18:04	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			02/23/22 18:04	4
Acetone	ND		40	12	ug/L			02/23/22 18:04	4
Benzene	ND		4.0	1.6	ug/L			02/23/22 18:04	4
Bromodichloromethane	ND		4.0	1.6	ug/L			02/23/22 18:04	4
Bromoform	ND		4.0	1.0	ug/L			02/23/22 18:04	4
Bromomethane	ND		4.0	2.8	ug/L			02/23/22 18:04	4
Carbon disulfide	ND		4.0	0.76	ug/L			02/23/22 18:04	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			02/23/22 18:04	4
Chlorobenzene	ND		4.0	3.0	ug/L			02/23/22 18:04	4
Dibromochloromethane	ND		4.0	1.3	ug/L			02/23/22 18:04	4
Chloroethane	ND		4.0	1.3	ug/L			02/23/22 18:04	4
Chloroform	**1.5**	**J**	4.0	1.4	ug/L			02/23/22 18:04	4
Chloromethane	ND		4.0	1.4	ug/L			02/23/22 18:04	4
cis-1,2-Dichloroethene	**140**		4.0	3.2	ug/L			02/23/22 18:04	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			02/23/22 18:04	4
Cyclohexane	ND		4.0	0.72	ug/L			02/23/22 18:04	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			02/23/22 18:04	4
Ethylbenzene	ND		4.0	3.0	ug/L			02/23/22 18:04	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			02/23/22 18:04	4
Isopropylbenzene	ND		4.0	3.2	ug/L			02/23/22 18:04	4
Methyl acetate	ND		10	5.2	ug/L			02/23/22 18:04	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			02/23/22 18:04	4
Methylcyclohexane	ND		4.0	0.64	ug/L			02/23/22 18:04	4
Methylene Chloride	ND		4.0	1.8	ug/L			02/23/22 18:04	4
Styrene	ND		4.0	2.9	ug/L			02/23/22 18:04	4
Tetrachloroethene	ND		4.0	1.4	ug/L			02/23/22 18:04	4
Toluene	ND		4.0	2.0	ug/L			02/23/22 18:04	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			02/23/22 18:04	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			02/23/22 18:04	4
Trichloroethene	**4.6**		4.0	1.8	ug/L			02/23/22 18:04	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			02/23/22 18:04	4
Vinyl chloride	ND		4.0	3.6	ug/L			02/23/22 18:04	4
Xylenes, Total	ND		8.0	2.6	ug/L			02/23/22 18:04	4

Client Sample ID: INFLUENT

Lab Sample ID: 480-195229-1

Date Collected: 02/22/22 11:50

Matrix: Water

Date Received: 02/23/22 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*02/23/22 18:04*	*4*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*02/23/22 18:04*	*4*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*02/23/22 18:04*	*4*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*02/23/22 18:04*	*4*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	71	E	0.20	0.10	ug/L		02/24/22 09:05	02/25/22 19:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*02/24/22 09:05*	*02/25/22 19:39*	*1*

Client Sample ID: POST COLUMN 1

Lab Sample ID: 480-195229-2

Date Collected: 02/22/22 12:20

Matrix: Water

Date Received: 02/23/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/23/22 18:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/23/22 18:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/23/22 18:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/23/22 18:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/23/22 18:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/23/22 18:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/23/22 18:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/23/22 18:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/23/22 18:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/23/22 18:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/23/22 18:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/23/22 18:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/23/22 18:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/23/22 18:27	1
2-Hexanone	ND		5.0	1.2	ug/L			02/23/22 18:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/23/22 18:27	1
Acetone	ND		10	3.0	ug/L			02/23/22 18:27	1
Benzene	ND		1.0	0.41	ug/L			02/23/22 18:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/23/22 18:27	1
Bromoform	ND		1.0	0.26	ug/L			02/23/22 18:27	1
Bromomethane	ND		1.0	0.69	ug/L			02/23/22 18:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/23/22 18:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/23/22 18:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/23/22 18:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/23/22 18:27	1
Chloroethane	ND		1.0	0.32	ug/L			02/23/22 18:27	1
Chloroform	ND		1.0	0.34	ug/L			02/23/22 18:27	1
Chloromethane	ND		1.0	0.35	ug/L			02/23/22 18:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/23/22 18:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/23/22 18:27	1
Cyclohexane	ND		1.0	0.18	ug/L			02/23/22 18:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/23/22 18:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/23/22 18:27	1

Client Sample ID: POST COLUMN 1

Lab Sample ID: 480-195229-2

Date Collected: 02/22/22 12:20
Matrix: Water
Date Received: 02/23/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/23/22 18:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/23/22 18:27	1
Methyl acetate	ND		2.5	1.3	ug/L			02/23/22 18:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/23/22 18:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/23/22 18:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/23/22 18:27	1
Styrene	ND		1.0	0.73	ug/L			02/23/22 18:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/23/22 18:27	1
Toluene	ND		1.0	0.51	ug/L			02/23/22 18:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/23/22 18:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/23/22 18:27	1
Trichloroethene	ND		1.0	0.46	ug/L			02/23/22 18:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/23/22 18:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/23/22 18:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/23/22 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 120*		*02/23/22 18:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*02/23/22 18:27*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*02/23/22 18:27*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*02/23/22 18:27*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.66**		0.20	0.10	ug/L		02/24/22 09:05	02/25/22 20:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*02/24/22 09:05*	*02/25/22 20:00*	*1*

Client Sample ID: POST COLUMN 2

Lab Sample ID: 480-195229-3

Date Collected: 02/22/22 12:40
Matrix: Water
Date Received: 02/23/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/23/22 18:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/23/22 18:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/23/22 18:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/23/22 18:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/23/22 18:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/23/22 18:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/23/22 18:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/23/22 18:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/23/22 18:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/23/22 18:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/23/22 18:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/23/22 18:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/23/22 18:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/23/22 18:50	1
2-Hexanone	ND		5.0	1.2	ug/L			02/23/22 18:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/23/22 18:50	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Client Sample ID: POST COLUMN 2
Date Collected: 02/22/22 12:40
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			02/23/22 18:50	1
Benzene	ND		1.0	0.41	ug/L			02/23/22 18:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/23/22 18:50	1
Bromoform	ND		1.0	0.26	ug/L			02/23/22 18:50	1
Bromomethane	ND		1.0	0.69	ug/L			02/23/22 18:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/23/22 18:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/23/22 18:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/23/22 18:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/23/22 18:50	1
Chloroethane	ND		1.0	0.32	ug/L			02/23/22 18:50	1
Chloroform	ND		1.0	0.34	ug/L			02/23/22 18:50	1
Chloromethane	ND		1.0	0.35	ug/L			02/23/22 18:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/23/22 18:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/23/22 18:50	1
Cyclohexane	ND		1.0	0.18	ug/L			02/23/22 18:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/23/22 18:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/23/22 18:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/23/22 18:50	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/23/22 18:50	1
Methyl acetate	ND		2.5	1.3	ug/L			02/23/22 18:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/23/22 18:50	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/23/22 18:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/23/22 18:50	1
Styrene	ND		1.0	0.73	ug/L			02/23/22 18:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/23/22 18:50	1
Toluene	ND		1.0	0.51	ug/L			02/23/22 18:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/23/22 18:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/23/22 18:50	1
Trichloroethene	ND		1.0	0.46	ug/L			02/23/22 18:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/23/22 18:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/23/22 18:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/23/22 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*02/23/22 18:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*02/23/22 18:50*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*02/23/22 18:50*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*02/23/22 18:50*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		02/24/22 09:05	02/25/22 20:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*02/24/22 09:05*	*02/25/22 20:22*	*1*

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Client Sample ID: EFFLUENT
Date Collected: 02/22/22 13:00
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/23/22 19:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/23/22 19:13	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/23/22 19:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/23/22 19:13	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/23/22 19:13	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/23/22 19:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/23/22 19:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/23/22 19:13	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/23/22 19:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/23/22 19:13	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/23/22 19:13	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/23/22 19:13	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/23/22 19:13	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/23/22 19:13	1
2-Hexanone	ND		5.0	1.2	ug/L			02/23/22 19:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/23/22 19:13	1
Acetone	ND		10	3.0	ug/L			02/23/22 19:13	1
Benzene	ND		1.0	0.41	ug/L			02/23/22 19:13	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/23/22 19:13	1
Bromoform	ND		1.0	0.26	ug/L			02/23/22 19:13	1
Bromomethane	ND		1.0	0.69	ug/L			02/23/22 19:13	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/23/22 19:13	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/23/22 19:13	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/23/22 19:13	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/23/22 19:13	1
Chloroethane	ND		1.0	0.32	ug/L			02/23/22 19:13	1
Chloroform	ND		1.0	0.34	ug/L			02/23/22 19:13	1
Chloromethane	ND		1.0	0.35	ug/L			02/23/22 19:13	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/23/22 19:13	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/23/22 19:13	1
Cyclohexane	ND		1.0	0.18	ug/L			02/23/22 19:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/23/22 19:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/23/22 19:13	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/23/22 19:13	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/23/22 19:13	1
Methyl acetate	ND		2.5	1.3	ug/L			02/23/22 19:13	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/23/22 19:13	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/23/22 19:13	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/23/22 19:13	1
Styrene	ND		1.0	0.73	ug/L			02/23/22 19:13	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/23/22 19:13	1
Toluene	ND		1.0	0.51	ug/L			02/23/22 19:13	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/23/22 19:13	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/23/22 19:13	1
Trichloroethene	ND		1.0	0.46	ug/L			02/23/22 19:13	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/23/22 19:13	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/23/22 19:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/23/22 19:13	1

Client Sample ID: EFFLUENT

Lab Sample ID: 480-195229-4

Date Collected: 02/22/22 13:00

Matrix: Water

Date Received: 02/23/22 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/23/22 19:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*02/23/22 19:13*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*02/23/22 19:13*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*02/23/22 19:13*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		02/24/22 09:05	02/25/22 20:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*02/24/22 09:05*	*02/25/22 20:43*	*1*

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-195229-5

Date Collected: 02/22/22 00:00

Matrix: Water

Date Received: 02/23/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/23/22 19:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/23/22 19:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/23/22 19:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/23/22 19:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/23/22 19:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/23/22 19:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/23/22 19:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/23/22 19:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/23/22 19:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/23/22 19:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/23/22 19:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/23/22 19:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/23/22 19:35	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/23/22 19:35	1
2-Hexanone	ND		5.0	1.2	ug/L			02/23/22 19:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/23/22 19:35	1
Acetone	ND		10	3.0	ug/L			02/23/22 19:35	1
Benzene	ND		1.0	0.41	ug/L			02/23/22 19:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/23/22 19:35	1
Bromoform	ND		1.0	0.26	ug/L			02/23/22 19:35	1
Bromomethane	ND		1.0	0.69	ug/L			02/23/22 19:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/23/22 19:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/23/22 19:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/23/22 19:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/23/22 19:35	1
Chloroethane	ND		1.0	0.32	ug/L			02/23/22 19:35	1
Chloroform	ND		1.0	0.34	ug/L			02/23/22 19:35	1
Chloromethane	ND		1.0	0.35	ug/L			02/23/22 19:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/23/22 19:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/23/22 19:35	1
Cyclohexane	ND		1.0	0.18	ug/L			02/23/22 19:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/23/22 19:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/23/22 19:35	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Client Sample ID: TRIP BLANK
Date Collected: 02/22/22 00:00
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/23/22 19:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/23/22 19:35	1
Methyl acetate	ND		2.5	1.3	ug/L			02/23/22 19:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/23/22 19:35	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/23/22 19:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/23/22 19:35	1
Styrene	ND		1.0	0.73	ug/L			02/23/22 19:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/23/22 19:35	1
Toluene	ND		1.0	0.51	ug/L			02/23/22 19:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/23/22 19:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/23/22 19:35	1
Trichloroethene	ND		1.0	0.46	ug/L			02/23/22 19:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/23/22 19:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/23/22 19:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/23/22 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/23/22 19:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*02/23/22 19:35*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*02/23/22 19:35*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*02/23/22 19:35*	*1*

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-195229-1	INFLUENT	100	104	99	102
480-195229-1 MS	INFLUENT	102	103	100	104
480-195229-1 MSD	INFLUENT	103	105	103	108
480-195229-2	POST COLUMN 1	103	103	102	106
480-195229-3	POST COLUMN 2	101	109	102	108
480-195229-4	EFFLUENT	102	102	101	101
480-195229-5	TRIP BLANK	102	104	98	103
LCS 480-615769/5	Lab Control Sample	102	102	106	108
MB 480-615769/8	Method Blank	102	102	102	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Isotope Dilution Summary

Client: Tetra Tech GEO
Job ID: 480-195229-1
Project/Site: GE Pompey, NY Investigation

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	DXE (15-110)						
480-195229-1	INFLUENT	31						
480-195229-2	POST COLUMN 1	31						
480-195229-3	POST COLUMN 2	31						
480-195229-4	EFFLUENT	30						
LCS 480-615911/2-A	Lab Control Sample	32						
LCSD 480-615911/3-A	Lab Control Sample Dup	32						
MB 480-615911/1-A	Method Blank	36						

Surrogate Legend

DXE = 1,4-Dioxane-d8

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

Lab Sample ID: MB 480-615769/8
Matrix: Water
Analysis Batch: 615769

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/23/22 11:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/23/22 11:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/23/22 11:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/23/22 11:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/23/22 11:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/23/22 11:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/23/22 11:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/23/22 11:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/23/22 11:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/23/22 11:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/23/22 11:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/23/22 11:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/23/22 11:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/23/22 11:09	1
2-Hexanone	ND		5.0	1.2	ug/L			02/23/22 11:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/23/22 11:09	1
Acetone	ND		10	3.0	ug/L			02/23/22 11:09	1
Benzene	ND		1.0	0.41	ug/L			02/23/22 11:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/23/22 11:09	1
Bromoform	ND		1.0	0.26	ug/L			02/23/22 11:09	1
Bromomethane	ND		1.0	0.69	ug/L			02/23/22 11:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/23/22 11:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/23/22 11:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/23/22 11:09	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/23/22 11:09	1
Chloroethane	ND		1.0	0.32	ug/L			02/23/22 11:09	1
Chloroform	ND		1.0	0.34	ug/L			02/23/22 11:09	1
Chloromethane	ND		1.0	0.35	ug/L			02/23/22 11:09	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/23/22 11:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/23/22 11:09	1
Cyclohexane	ND		1.0	0.18	ug/L			02/23/22 11:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/23/22 11:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/23/22 11:09	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/23/22 11:09	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/23/22 11:09	1
Methyl acetate	ND		2.5	1.3	ug/L			02/23/22 11:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/23/22 11:09	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/23/22 11:09	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/23/22 11:09	1
Styrene	ND		1.0	0.73	ug/L			02/23/22 11:09	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/23/22 11:09	1
Toluene	ND		1.0	0.51	ug/L			02/23/22 11:09	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/23/22 11:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/23/22 11:09	1
Trichloroethene	ND		1.0	0.46	ug/L			02/23/22 11:09	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/23/22 11:09	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/23/22 11:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/23/22 11:09	1

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

Lab Sample ID: MB 480-615769/8
Matrix: Water
Analysis Batch: 615769

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/23/22 11:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*02/23/22 11:09*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*02/23/22 11:09*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*02/23/22 11:09*	*1*

Lab Sample ID: LCS 480-615769/5
Matrix: Water
Analysis Batch: 615769

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.4		ug/L		94	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	76 - 120
1,1,2-Trichloroethane	25.0	24.1		ug/L		96	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.1		ug/L		96	61 - 148
1,1-Dichloroethane	25.0	23.7		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	23.4		ug/L		94	66 - 127
1,2,4-Trichlorobenzene	25.0	23.8		ug/L		95	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.2		ug/L		93	56 - 134
1,2-Dichlorobenzene	25.0	23.1		ug/L		93	80 - 124
1,2-Dichloroethane	25.0	23.6		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	24.2		ug/L		97	76 - 120
1,3-Dichlorobenzene	25.0	23.6		ug/L		95	77 - 120
1,4-Dichlorobenzene	25.0	23.7		ug/L		95	80 - 120
2-Butanone (MEK)	125	136		ug/L		109	57 - 140
2-Hexanone	125	138		ug/L		110	65 - 127
4-Methyl-2-pentanone (MIBK)	125	131		ug/L		105	71 - 125
Acetone	125	154		ug/L		123	56 - 142
Benzene	25.0	24.1		ug/L		96	71 - 124
Bromodichloromethane	25.0	25.5		ug/L		102	80 - 122
Bromoform	25.0	24.5		ug/L		98	61 - 132
Bromomethane	25.0	23.0		ug/L		92	55 - 144
Carbon disulfide	25.0	23.8		ug/L		95	59 - 134
Carbon tetrachloride	25.0	23.5		ug/L		94	72 - 134
Chlorobenzene	25.0	23.4		ug/L		93	80 - 120
Dibromochloromethane	25.0	24.7		ug/L		99	75 - 125
Chloroethane	25.0	22.6		ug/L		91	69 - 136
Chloroform	25.0	23.7		ug/L		95	73 - 127
Chloromethane	25.0	24.6		ug/L		98	68 - 124
cis-1,2-Dichloroethene	25.0	23.4		ug/L		94	74 - 124
cis-1,3-Dichloropropene	25.0	25.1		ug/L		100	74 - 124
Cyclohexane	25.0	22.5		ug/L		90	59 - 135
Dichlorodifluoromethane	25.0	30.4		ug/L		122	59 - 135
Ethylbenzene	25.0	23.6		ug/L		94	77 - 123
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120
Isopropylbenzene	25.0	22.1		ug/L		88	77 - 122
Methyl acetate	50.0	48.7		ug/L		97	74 - 133
Methyl tert-butyl ether	25.0	24.5		ug/L		98	77 - 120
Methylcyclohexane	25.0	22.7		ug/L		91	68 - 134

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

Lab Sample ID: LCS 480-615769/5
Matrix: Water
Analysis Batch: 615769

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	25.0	24.6		ug/L		98	75 - 124
Styrene	25.0	23.9		ug/L		96	80 - 120
Tetrachloroethene	25.0	23.1		ug/L		93	74 - 122
Toluene	25.0	23.7		ug/L		95	80 - 122
trans-1,2-Dichloroethene	25.0	23.0		ug/L		92	73 - 127
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	80 - 120
Trichloroethene	25.0	24.2		ug/L		97	74 - 123
Trichlorofluoromethane	25.0	27.0		ug/L		108	62 - 150
Vinyl chloride	25.0	26.3		ug/L		105	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*
Dibromofluoromethane (Surr)	*108*		*75 - 123*

Lab Sample ID: 480-195229-1 MS
Matrix: Water
Analysis Batch: 615769

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		100	108		ug/L		108	73 - 126
1,1,2,2-Tetrachloroethane	ND		100	107		ug/L		107	76 - 120
1,1,2-Trichloroethane	ND		100	105		ug/L		105	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	102		ug/L		102	61 - 148
1,1-Dichloroethane	22		100	123		ug/L		101	77 - 120
1,1-Dichloroethene	ND		100	105		ug/L		105	66 - 127
1,2,4-Trichlorobenzene	ND		100	100		ug/L		100	79 - 122
1,2-Dibromo-3-Chloropropane	ND		100	101		ug/L		101	56 - 134
1,2-Dichlorobenzene	ND		100	106		ug/L		106	80 - 124
1,2-Dichloroethane	ND		100	102		ug/L		102	75 - 120
1,2-Dichloropropane	ND		100	104		ug/L		104	76 - 120
1,3-Dichlorobenzene	ND		100	107		ug/L		107	77 - 120
1,4-Dichlorobenzene	ND		100	104		ug/L		104	78 - 124
2-Butanone (MEK)	ND		500	571		ug/L		114	57 - 140
2-Hexanone	ND		500	563		ug/L		113	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		500	568		ug/L		114	71 - 125
Acetone	ND		500	604		ug/L		121	56 - 142
Benzene	ND		100	105		ug/L		105	71 - 124
Bromodichloromethane	ND		100	107		ug/L		107	80 - 122
Bromoform	ND		100	101		ug/L		101	61 - 132
Bromomethane	ND		100	99.9		ug/L		100	55 - 144
Carbon disulfide	ND		100	102		ug/L		102	59 - 134
Carbon tetrachloride	ND		100	103		ug/L		103	72 - 134
Chlorobenzene	ND		100	104		ug/L		104	80 - 120
Dibromochloromethane	ND		100	106		ug/L		106	75 - 125
Chloroethane	ND		100	100		ug/L		100	69 - 136
Chloroform	1.5	J	100	101		ug/L		99	73 - 127

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

Lab Sample ID: 480-195229-1 MS
Matrix: Water
Analysis Batch: 615769

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	ND		100	110		ug/L		110	68 - 124
cis-1,2-Dichloroethene	140		100	232		ug/L		95	74 - 124
cis-1,3-Dichloropropene	ND		100	102		ug/L		102	74 - 124
Cyclohexane	ND		100	99.3		ug/L		99	59 - 135
Dichlorodifluoromethane	ND		100	128		ug/L		128	59 - 135
Ethylbenzene	ND		100	107		ug/L		107	77 - 123
1,2-Dibromoethane	ND		100	105		ug/L		105	77 - 120
Isopropylbenzene	ND		100	105		ug/L		105	77 - 122
Methyl acetate	ND		200	220		ug/L		110	74 - 133
Methyl tert-butyl ether	ND		100	104		ug/L		104	77 - 120
Methylcyclohexane	ND		100	97.9		ug/L		98	68 - 134
Methylene Chloride	ND		100	104		ug/L		104	75 - 124
Styrene	ND		100	106		ug/L		106	80 - 120
Tetrachloroethene	ND		100	104		ug/L		104	74 - 122
Toluene	ND		100	105		ug/L		105	80 - 122
trans-1,2-Dichloroethene	ND		100	104		ug/L		104	73 - 127
trans-1,3-Dichloropropene	ND		100	104		ug/L		104	80 - 120
Trichloroethene	4.6		100	110		ug/L		106	74 - 123
Trichlorofluoromethane	ND		100	115		ug/L		115	62 - 150
Vinyl chloride	ND		100	119		ug/L		119	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 123*

Lab Sample ID: 480-195229-1 MSD
Matrix: Water
Analysis Batch: 615769

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		100	98.7		ug/L		99	73 - 126	9	15
1,1,2,2-Tetrachloroethane	ND		100	107		ug/L		107	76 - 120	0	15
1,1,2-Trichloroethane	ND		100	100		ug/L		100	76 - 122	4	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	101		ug/L		101	61 - 148	1	20
1,1-Dichloroethane	22		100	118		ug/L		96	77 - 120	5	20
1,1-Dichloroethene	ND		100	96.9		ug/L		97	66 - 127	8	16
1,2,4-Trichlorobenzene	ND		100	96.1		ug/L		96	79 - 122	4	20
1,2-Dibromo-3-Chloropropane	ND		100	103		ug/L		103	56 - 134	2	15
1,2-Dichlorobenzene	ND		100	98.5		ug/L		99	80 - 124	8	20
1,2-Dichloroethane	ND		100	100		ug/L		100	75 - 120	2	20
1,2-Dichloropropane	ND		100	102		ug/L		102	76 - 120	2	20
1,3-Dichlorobenzene	ND		100	99.9		ug/L		100	77 - 120	7	20
1,4-Dichlorobenzene	ND		100	97.6		ug/L		98	78 - 124	6	20
2-Butanone (MEK)	ND		500	593		ug/L		119	57 - 140	4	20
2-Hexanone	ND		500	559		ug/L		112	65 - 127	1	15
4-Methyl-2-pentanone (MIBK)	ND		500	559		ug/L		112	71 - 125	2	35

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

Lab Sample ID: 480-195229-1 MSD
Matrix: Water
Analysis Batch: 615769

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		500	678		ug/L		136	56 - 142	12	15
Benzene	ND		100	100		ug/L		100	71 - 124	4	13
Bromodichloromethane	ND		100	102		ug/L		102	80 - 122	5	15
Bromoform	ND		100	98.4		ug/L		98	61 - 132	3	15
Bromomethane	ND		100	97.9		ug/L		98	55 - 144	2	15
Carbon disulfide	ND		100	94.1		ug/L		94	59 - 134	8	15
Carbon tetrachloride	ND		100	97.8		ug/L		98	72 - 134	5	15
Chlorobenzene	ND		100	97.4		ug/L		97	80 - 120	7	25
Dibromochloromethane	ND		100	101		ug/L		101	75 - 125	4	15
Chloroethane	ND		100	93.8		ug/L		94	69 - 136	6	15
Chloroform	1.5	J	100	96.5		ug/L		95	73 - 127	4	20
Chloromethane	ND		100	102		ug/L		102	68 - 124	7	15
cis-1,2-Dichloroethene	140		100	222		ug/L		85	74 - 124	4	15
cis-1,3-Dichloropropene	ND		100	100		ug/L		100	74 - 124	2	15
Cyclohexane	ND		100	91.9		ug/L		92	59 - 135	8	20
Dichlorodifluoromethane	ND		100	122		ug/L		122	59 - 135	5	20
Ethylbenzene	ND		100	98.6		ug/L		99	77 - 123	8	15
1,2-Dibromoethane	ND		100	103		ug/L		103	77 - 120	1	15
Isopropylbenzene	ND		100	95.1		ug/L		95	77 - 122	10	20
Methyl acetate	ND		200	219		ug/L		109	74 - 133	1	20
Methyl tert-butyl ether	ND		100	105		ug/L		105	77 - 120	1	37
Methylcyclohexane	ND		100	92.7		ug/L		93	68 - 134	5	20
Methylene Chloride	ND		100	102		ug/L		102	75 - 124	2	15
Styrene	ND		100	99.5		ug/L		99	80 - 120	7	20
Tetrachloroethene	ND		100	94.9		ug/L		95	74 - 122	10	20
Toluene	ND		100	100		ug/L		100	80 - 122	5	15
trans-1,2-Dichloroethene	ND		100	96.6		ug/L		97	73 - 127	8	20
trans-1,3-Dichloropropene	ND		100	101		ug/L		101	80 - 120	4	15
Trichloroethene	4.6		100	103		ug/L		99	74 - 123	6	16
Trichlorofluoromethane	ND		100	112		ug/L		112	62 - 150	3	20
Vinyl chloride	ND		100	112		ug/L		112	65 - 133	6	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*
Dibromofluoromethane (Surr)	*108*		*75 - 123*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-615911/1-A
Matrix: Water
Analysis Batch: 616101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		02/24/22 09:05	02/25/22 18:33	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*36*		*15 - 110*	*02/24/22 09:05*	*02/25/22 18:33*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: LCS 480-615911/2-A
Matrix: Water
Analysis Batch: 616101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615911

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	2.19		ug/L		109	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*32*		*15 - 110*

Lab Sample ID: LCSD 480-615911/3-A
Matrix: Water
Analysis Batch: 616101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 615911

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	2.15		ug/L		107	40 - 140	2	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*32*		*15 - 110*

QC Association Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

GC/MS VOA

Analysis Batch: 615769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195229-1	INFLUENT	Total/NA	Water	8260C	
480-195229-2	POST COLUMN 1	Total/NA	Water	8260C	
480-195229-3	POST COLUMN 2	Total/NA	Water	8260C	
480-195229-4	EFFLUENT	Total/NA	Water	8260C	
480-195229-5	TRIP BLANK	Total/NA	Water	8260C	
MB 480-615769/8	Method Blank	Total/NA	Water	8260C	
LCS 480-615769/5	Lab Control Sample	Total/NA	Water	8260C	
480-195229-1 MS	INFLUENT	Total/NA	Water	8260C	
480-195229-1 MSD	INFLUENT	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 615911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195229-1	INFLUENT	Total/NA	Water	3510C	
480-195229-2	POST COLUMN 1	Total/NA	Water	3510C	
480-195229-3	POST COLUMN 2	Total/NA	Water	3510C	
480-195229-4	EFFLUENT	Total/NA	Water	3510C	
MB 480-615911/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-615911/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-615911/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 616101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195229-1	INFLUENT	Total/NA	Water	8270D SIM ID	615911
480-195229-2	POST COLUMN 1	Total/NA	Water	8270D SIM ID	615911
480-195229-3	POST COLUMN 2	Total/NA	Water	8270D SIM ID	615911
480-195229-4	EFFLUENT	Total/NA	Water	8270D SIM ID	615911
MB 480-615911/1-A	Method Blank	Total/NA	Water	8270D SIM ID	615911
LCS 480-615911/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	615911
LCSD 480-615911/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	615911

Lab Chronicle

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Client Sample ID: INFLUENT
Date Collected: 02/22/22 11:50
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	615769	02/23/22 18:04	LCH	TAL BUF
Total/NA	Prep	3510C			615911	02/24/22 09:05	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	616101	02/25/22 19:39	PJQ	TAL BUF

Client Sample ID: POST COLUMN 1
Date Collected: 02/22/22 12:20
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615769	02/23/22 18:27	LCH	TAL BUF
Total/NA	Prep	3510C			615911	02/24/22 09:05	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	616101	02/25/22 20:00	PJQ	TAL BUF

Client Sample ID: POST COLUMN 2
Date Collected: 02/22/22 12:40
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615769	02/23/22 18:50	LCH	TAL BUF
Total/NA	Prep	3510C			615911	02/24/22 09:05	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	616101	02/25/22 20:22	PJQ	TAL BUF

Client Sample ID: EFFLUENT
Date Collected: 02/22/22 13:00
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615769	02/23/22 19:13	LCH	TAL BUF
Total/NA	Prep	3510C			615911	02/24/22 09:05	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	616101	02/25/22 20:43	PJQ	TAL BUF

Client Sample ID: TRIP BLANK
Date Collected: 02/22/22 00:00
Date Received: 02/23/22 08:00

Lab Sample ID: 480-195229-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	615769	02/23/22 19:35	LCH	TAL BUF

Laboratory References:
TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-195229-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-NY044	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,4-Dichlorobenzene
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone (MIBK)
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Bromomethane
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Cyclohexane
8260C		Water	Dibromochloromethane
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethylbenzene
8260C		Water	Isopropylbenzene
8260C		Water	Methyl acetate
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylcyclohexane
8260C		Water	Methylene Chloride
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-195229-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total
8270D SIM ID	3510C	Water	1,4-Dioxane

Method Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195229-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-195229-1	INFLUENT	Water	02/22/22 11:50	02/23/22 08:00
480-195229-2	POST COLUMN 1	Water	02/22/22 12:20	02/23/22 08:00
480-195229-3	POST COLUMN 2	Water	02/22/22 12:40	02/23/22 08:00
480-195229-4	EFFLUENT	Water	02/22/22 13:00	02/23/22 08:00
480-195229-5	TRIP BLANK	Water	02/22/22 00:00	02/23/22 08:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information			
Client Contact: Ms. Bailey Kudla-Williams	Sampler: J. Wolff-Schneider	Lab PM: Fischer, Brian J	Carrier Tracking No(s):
Company: Tetra Tech GEO	Phone: 646 248-3823	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin: NY
Address: 3136 South Winton Road Suite 303	Due Date Requested: Normal TAT	PWSID:	
City: Rochester	TAT Requested (days): Normal TAT		
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No		
Phone: 805-501-8053(Tel)	PO #: 510875		
Email: bailey.kudlawilliams@tetratech.com	WO #:		
Project Name: GE Pompey, NY Investigation	Project #: 48023743		
Site:	SSOW#:		

COC No: 480-169454-36972.2
Page: Page 2 of 5
Job #:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3

480-195229 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
Influent	02/22/22	11:50	G	Water			X	X	5	
Post Column 1	02/22/22	12:20	G	Water			X	X	5	
Post Column 2	02/22/22	12:40	G	Water			X	X	5	
Effluent	02/22/22	13:00	G	Water			X	X	5	
Trip Blank	—	—	—	Water					1	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

JW 2/22/22

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

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

Deliverable Requested: I, II, III, IV, Other (specify)
Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: 02/22/22 | Time: 15:07 | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	02/22/22, 15:07		[signature]	2/22/22 1507	ES-SYR
K Englunh	2-23-22, 1900	Eyn	[signature] IKOLP	2/23/22 800	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.2 #1 ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 480-195229-1

Login Number: 195229
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TT
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

MARCH 10, 2022 COMLPLETE ANALYTICAL RESULTS

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ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-195732-1
Client Project/Site: GE Pompey, NY Investigation

For:
Tetra Tech GEO
3136 South Winton Road
Suite 303
Rochester, New York 14623

Attn: Ms. Bailey Kudla-Williams

Authorized for release by:
3/17/2022 1:30:36 PM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Job ID: 480-195732-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-195732-1

Comments
No additional comments.

Receipt
The samples were received on 3/12/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: INFLUENT (480-195732-1). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: (CCV 480-617790/5). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method 8270D SIM ID: The 1,4-Dioxane result reported for samples INFLUENT (480-195732-1) and POST COLUMN 1 (480-195732-2) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

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

Detection Summary

Client: Tetra Tech GEO
Job ID: 480-195732-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: INFLUENT — Lab Sample ID: 480-195732-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	35		4.0	1.5	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	240		4.0	3.2	ug/L	4		8260C	Total/NA
Trichloroethene	5.0		4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	37		4.0	3.6	ug/L	4		8260C	Total/NA
1,4-Dioxane	84	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 1 — Lab Sample ID: 480-195732-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.19	J	1.0	0.19	ug/L	1		8260C	Total/NA
1,4-Dioxane	44	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 2 — Lab Sample ID: 480-195732-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.39		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: EFFLUENT — Lab Sample ID: 480-195732-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.22	J	1.0	0.19	ug/L	1		8260C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-195732-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Client Sample ID: INFLUENT
Date Collected: 03/10/22 18:13
Date Received: 03/12/22 08:00

Lab Sample ID: 480-195732-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			03/15/22 03:14	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			03/15/22 03:14	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			03/15/22 03:14	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			03/15/22 03:14	4
1,1-Dichloroethane	**35**		4.0	1.5	ug/L			03/15/22 03:14	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			03/15/22 03:14	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			03/15/22 03:14	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			03/15/22 03:14	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			03/15/22 03:14	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			03/15/22 03:14	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			03/15/22 03:14	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			03/15/22 03:14	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			03/15/22 03:14	4
2-Butanone (MEK)	ND		40	5.3	ug/L			03/15/22 03:14	4
2-Hexanone	ND		20	5.0	ug/L			03/15/22 03:14	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			03/15/22 03:14	4
Acetone	ND		40	12	ug/L			03/15/22 03:14	4
Benzene	ND		4.0	1.6	ug/L			03/15/22 03:14	4
Bromodichloromethane	ND		4.0	1.6	ug/L			03/15/22 03:14	4
Bromoform	ND		4.0	1.0	ug/L			03/15/22 03:14	4
Bromomethane	ND		4.0	2.8	ug/L			03/15/22 03:14	4
Carbon disulfide	ND		4.0	0.76	ug/L			03/15/22 03:14	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			03/15/22 03:14	4
Chlorobenzene	ND		4.0	3.0	ug/L			03/15/22 03:14	4
Dibromochloromethane	ND		4.0	1.3	ug/L			03/15/22 03:14	4
Chloroethane	ND		4.0	1.3	ug/L			03/15/22 03:14	4
Chloroform	ND		4.0	1.4	ug/L			03/15/22 03:14	4
Chloromethane	ND		4.0	1.4	ug/L			03/15/22 03:14	4
cis-1,2-Dichloroethene	**240**		4.0	3.2	ug/L			03/15/22 03:14	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			03/15/22 03:14	4
Cyclohexane	ND		4.0	0.72	ug/L			03/15/22 03:14	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			03/15/22 03:14	4
Ethylbenzene	ND		4.0	3.0	ug/L			03/15/22 03:14	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			03/15/22 03:14	4
Isopropylbenzene	ND		4.0	3.2	ug/L			03/15/22 03:14	4
Methyl acetate	ND		10	5.2	ug/L			03/15/22 03:14	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			03/15/22 03:14	4
Methylcyclohexane	ND		4.0	0.64	ug/L			03/15/22 03:14	4
Methylene Chloride	ND		4.0	1.8	ug/L			03/15/22 03:14	4
Styrene	ND		4.0	2.9	ug/L			03/15/22 03:14	4
Tetrachloroethene	ND		4.0	1.4	ug/L			03/15/22 03:14	4
Toluene	ND		4.0	2.0	ug/L			03/15/22 03:14	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			03/15/22 03:14	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			03/15/22 03:14	4
Trichloroethene	**5.0**		4.0	1.8	ug/L			03/15/22 03:14	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			03/15/22 03:14	4
Vinyl chloride	**37**		4.0	3.6	ug/L			03/15/22 03:14	4
Xylenes, Total	ND		8.0	2.6	ug/L			03/15/22 03:14	4

Client Sample ID: INFLUENT

Lab Sample ID: 480-195732-1

Date Collected: 03/10/22 18:13

Matrix: Water

Date Received: 03/12/22 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/15/22 03:14*	*4*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*03/15/22 03:14*	*4*
4-Bromofluorobenzene (Surr)	*88*		*73 - 120*		*03/15/22 03:14*	*4*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*03/15/22 03:14*	*4*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**84**	**E**	0.20	0.10	ug/L		03/14/22 09:43	03/15/22 21:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*21*		*15 - 110*	*03/14/22 09:43*	*03/15/22 21:43*	*1*

Client Sample ID: POST COLUMN 1

Lab Sample ID: 480-195732-2

Date Collected: 03/10/22 18:25

Matrix: Water

Date Received: 03/12/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/15/22 03:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/15/22 03:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/15/22 03:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/15/22 03:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/15/22 03:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/15/22 03:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/15/22 03:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/15/22 03:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/15/22 03:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/15/22 03:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/15/22 03:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/15/22 03:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/15/22 03:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/15/22 03:36	1
2-Hexanone	ND		5.0	1.2	ug/L			03/15/22 03:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/15/22 03:36	1
Acetone	ND		10	3.0	ug/L			03/15/22 03:36	1
Benzene	ND		1.0	0.41	ug/L			03/15/22 03:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/15/22 03:36	1
Bromoform	ND		1.0	0.26	ug/L			03/15/22 03:36	1
Bromomethane	ND		1.0	0.69	ug/L			03/15/22 03:36	1
Carbon disulfide	**0.19**	**J**	1.0	0.19	ug/L			03/15/22 03:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/15/22 03:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/15/22 03:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/15/22 03:36	1
Chloroethane	ND		1.0	0.32	ug/L			03/15/22 03:36	1
Chloroform	ND		1.0	0.34	ug/L			03/15/22 03:36	1
Chloromethane	ND		1.0	0.35	ug/L			03/15/22 03:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/15/22 03:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/15/22 03:36	1
Cyclohexane	ND		1.0	0.18	ug/L			03/15/22 03:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/15/22 03:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/15/22 03:36	1

Client Sample ID: POST COLUMN 1

Lab Sample ID: 480-195732-2

Date Collected: 03/10/22 18:25

Matrix: Water

Date Received: 03/12/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/15/22 03:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/15/22 03:36	1
Methyl acetate	ND		2.5	1.3	ug/L			03/15/22 03:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/15/22 03:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/15/22 03:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/15/22 03:36	1
Styrene	ND		1.0	0.73	ug/L			03/15/22 03:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/15/22 03:36	1
Toluene	ND		1.0	0.51	ug/L			03/15/22 03:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/15/22 03:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/15/22 03:36	1
Trichloroethene	ND		1.0	0.46	ug/L			03/15/22 03:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/15/22 03:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/15/22 03:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/15/22 03:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/15/22 03:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*03/15/22 03:36*	*1*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*03/15/22 03:36*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*03/15/22 03:36*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**44**	**E**	0.20	0.10	ug/L		03/14/22 09:43	03/15/22 22:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*03/14/22 09:43*	*03/15/22 22:06*	*1*

Client Sample ID: POST COLUMN 2

Lab Sample ID: 480-195732-3

Date Collected: 03/10/22 18:50

Matrix: Water

Date Received: 03/12/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/15/22 03:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/15/22 03:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/15/22 03:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/15/22 03:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/15/22 03:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/15/22 03:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/15/22 03:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/15/22 03:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/15/22 03:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/15/22 03:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/15/22 03:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/15/22 03:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/15/22 03:58	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/15/22 03:58	1
2-Hexanone	ND		5.0	1.2	ug/L			03/15/22 03:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/15/22 03:58	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Client Sample ID: POST COLUMN 2
Date Collected: 03/10/22 18:50
Date Received: 03/12/22 08:00

Lab Sample ID: 480-195732-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			03/15/22 03:58	1
Benzene	ND		1.0	0.41	ug/L			03/15/22 03:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/15/22 03:58	1
Bromoform	ND		1.0	0.26	ug/L			03/15/22 03:58	1
Bromomethane	ND		1.0	0.69	ug/L			03/15/22 03:58	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/15/22 03:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/15/22 03:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/15/22 03:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/15/22 03:58	1
Chloroethane	ND		1.0	0.32	ug/L			03/15/22 03:58	1
Chloroform	ND		1.0	0.34	ug/L			03/15/22 03:58	1
Chloromethane	ND		1.0	0.35	ug/L			03/15/22 03:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/15/22 03:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/15/22 03:58	1
Cyclohexane	ND		1.0	0.18	ug/L			03/15/22 03:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/15/22 03:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/15/22 03:58	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/15/22 03:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/15/22 03:58	1
Methyl acetate	ND		2.5	1.3	ug/L			03/15/22 03:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/15/22 03:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/15/22 03:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/15/22 03:58	1
Styrene	ND		1.0	0.73	ug/L			03/15/22 03:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/15/22 03:58	1
Toluene	ND		1.0	0.51	ug/L			03/15/22 03:58	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/15/22 03:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/15/22 03:58	1
Trichloroethene	ND		1.0	0.46	ug/L			03/15/22 03:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/15/22 03:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/15/22 03:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/15/22 03:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 120*		*03/15/22 03:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*03/15/22 03:58*	*1*
4-Bromofluorobenzene (Surr)	*88*		*73 - 120*		*03/15/22 03:58*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 123*		*03/15/22 03:58*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.39**		0.20	0.10	ug/L		03/14/22 09:43	03/15/22 22:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*03/14/22 09:43*	*03/15/22 22:28*	*1*

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Client Sample ID: EFFLUENT
Date Collected: 03/10/22 18:00
Date Received: 03/12/22 08:00

Lab Sample ID: 480-195732-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/15/22 04:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/15/22 04:20	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/15/22 04:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/15/22 04:20	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/15/22 04:20	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/15/22 04:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/15/22 04:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/15/22 04:20	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/15/22 04:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/15/22 04:20	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/15/22 04:20	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/15/22 04:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/15/22 04:20	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/15/22 04:20	1
2-Hexanone	ND		5.0	1.2	ug/L			03/15/22 04:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/15/22 04:20	1
Acetone	ND		10	3.0	ug/L			03/15/22 04:20	1
Benzene	ND		1.0	0.41	ug/L			03/15/22 04:20	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/15/22 04:20	1
Bromoform	ND		1.0	0.26	ug/L			03/15/22 04:20	1
Bromomethane	ND		1.0	0.69	ug/L			03/15/22 04:20	1
Carbon disulfide	**0.22**	**J**	1.0	0.19	ug/L			03/15/22 04:20	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/15/22 04:20	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/15/22 04:20	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/15/22 04:20	1
Chloroethane	ND		1.0	0.32	ug/L			03/15/22 04:20	1
Chloroform	ND		1.0	0.34	ug/L			03/15/22 04:20	1
Chloromethane	ND		1.0	0.35	ug/L			03/15/22 04:20	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/15/22 04:20	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/15/22 04:20	1
Cyclohexane	ND		1.0	0.18	ug/L			03/15/22 04:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/15/22 04:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/15/22 04:20	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/15/22 04:20	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/15/22 04:20	1
Methyl acetate	ND		2.5	1.3	ug/L			03/15/22 04:20	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/15/22 04:20	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/15/22 04:20	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/15/22 04:20	1
Styrene	ND		1.0	0.73	ug/L			03/15/22 04:20	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/15/22 04:20	1
Toluene	ND		1.0	0.51	ug/L			03/15/22 04:20	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/15/22 04:20	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/15/22 04:20	1
Trichloroethene	ND		1.0	0.46	ug/L			03/15/22 04:20	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/15/22 04:20	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/15/22 04:20	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/15/22 04:20	1

Client Sample ID: EFFLUENT
Lab Sample ID: 480-195732-4

Date Collected: 03/10/22 18:00
Matrix: Water
Date Received: 03/12/22 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/15/22 04:20*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*03/15/22 04:20*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*03/15/22 04:20*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*03/15/22 04:20*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		03/14/22 09:43	03/15/22 22:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*19*		*15 - 110*	*03/14/22 09:43*	*03/15/22 22:50*	*1*

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-195732-5

Date Collected: 03/10/22 00:00
Matrix: Water
Date Received: 03/12/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/15/22 04:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/15/22 04:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/15/22 04:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/15/22 04:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/15/22 04:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/15/22 04:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/15/22 04:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/15/22 04:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/15/22 04:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/15/22 04:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/15/22 04:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/15/22 04:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/15/22 04:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/15/22 04:42	1
2-Hexanone	ND		5.0	1.2	ug/L			03/15/22 04:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/15/22 04:42	1
Acetone	ND		10	3.0	ug/L			03/15/22 04:42	1
Benzene	ND		1.0	0.41	ug/L			03/15/22 04:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/15/22 04:42	1
Bromoform	ND		1.0	0.26	ug/L			03/15/22 04:42	1
Bromomethane	ND		1.0	0.69	ug/L			03/15/22 04:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/15/22 04:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/15/22 04:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/15/22 04:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/15/22 04:42	1
Chloroethane	ND		1.0	0.32	ug/L			03/15/22 04:42	1
Chloroform	ND		1.0	0.34	ug/L			03/15/22 04:42	1
Chloromethane	ND		1.0	0.35	ug/L			03/15/22 04:42	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/15/22 04:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/15/22 04:42	1
Cyclohexane	ND		1.0	0.18	ug/L			03/15/22 04:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/15/22 04:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/15/22 04:42	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Client Sample ID: TRIP BLANK
Date Collected: 03/10/22 00:00
Date Received: 03/12/22 08:00

Lab Sample ID: 480-195732-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/15/22 04:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/15/22 04:42	1
Methyl acetate	ND		2.5	1.3	ug/L			03/15/22 04:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/15/22 04:42	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/15/22 04:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/15/22 04:42	1
Styrene	ND		1.0	0.73	ug/L			03/15/22 04:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/15/22 04:42	1
Toluene	ND		1.0	0.51	ug/L			03/15/22 04:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/15/22 04:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/15/22 04:42	1
Trichloroethene	ND		1.0	0.46	ug/L			03/15/22 04:42	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/15/22 04:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/15/22 04:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/15/22 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/15/22 04:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*03/15/22 04:42*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*03/15/22 04:42*	*1*
Dibromofluoromethane (Surr)	*113*		*75 - 123*		*03/15/22 04:42*	*1*

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-195732-1	INFLUENT	102	110	88	112
480-195732-2	POST COLUMN 1	101	111	92	110
480-195732-3	POST COLUMN 2	103	111	88	115
480-195732-4	EFFLUENT	96	111	96	108
480-195732-5	TRIP BLANK	102	112	89	113
LCS 480-617790/6	Lab Control Sample	102	102	92	101
MB 480-617790/8	Method Blank	96	104	96	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Isotope Dilution Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(15-110)
480-195732-1	INFLUENT	21
480-195732-2	POST COLUMN 1	27
480-195732-3	POST COLUMN 2	27
480-195732-4	EFFLUENT	19
LCS 480-617715/2-A	Lab Control Sample	35
MB 480-617715/1-A	Method Blank	35

Surrogate Legend

DXE = 1,4-Dioxane-d8

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

Lab Sample ID: MB 480-617790/8
Matrix: Water
Analysis Batch: 617790

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/14/22 23:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/14/22 23:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/14/22 23:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/14/22 23:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/14/22 23:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/14/22 23:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/14/22 23:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/14/22 23:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/14/22 23:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/14/22 23:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/14/22 23:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/14/22 23:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/14/22 23:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/14/22 23:54	1
2-Hexanone	ND		5.0	1.2	ug/L			03/14/22 23:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/14/22 23:54	1
Acetone	ND		10	3.0	ug/L			03/14/22 23:54	1
Benzene	ND		1.0	0.41	ug/L			03/14/22 23:54	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/14/22 23:54	1
Bromoform	ND		1.0	0.26	ug/L			03/14/22 23:54	1
Bromomethane	ND		1.0	0.69	ug/L			03/14/22 23:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/14/22 23:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/14/22 23:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/14/22 23:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/14/22 23:54	1
Chloroethane	ND		1.0	0.32	ug/L			03/14/22 23:54	1
Chloroform	ND		1.0	0.34	ug/L			03/14/22 23:54	1
Chloromethane	ND		1.0	0.35	ug/L			03/14/22 23:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/14/22 23:54	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/14/22 23:54	1
Cyclohexane	ND		1.0	0.18	ug/L			03/14/22 23:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/14/22 23:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/14/22 23:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/14/22 23:54	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/14/22 23:54	1
Methyl acetate	ND		2.5	1.3	ug/L			03/14/22 23:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/14/22 23:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/14/22 23:54	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/14/22 23:54	1
Styrene	ND		1.0	0.73	ug/L			03/14/22 23:54	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/14/22 23:54	1
Toluene	ND		1.0	0.51	ug/L			03/14/22 23:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/14/22 23:54	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/14/22 23:54	1
Trichloroethene	ND		1.0	0.46	ug/L			03/14/22 23:54	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/14/22 23:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/14/22 23:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/14/22 23:54	1

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

Lab Sample ID: MB 480-617790/8
Matrix: Water
Analysis Batch: 617790

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/14/22 23:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*03/14/22 23:54*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*03/14/22 23:54*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*03/14/22 23:54*	*1*

Lab Sample ID: LCS 480-617790/6
Matrix: Water
Analysis Batch: 617790

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.9		ug/L		96	73 - 126
1,1,2,2-Tetrachloroethane	25.0	27.5		ug/L		110	76 - 120
1,1,2-Trichloroethane	25.0	25.4		ug/L		102	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.0		ug/L		92	61 - 148
1,1-Dichloroethane	25.0	25.7		ug/L		103	77 - 120
1,1-Dichloroethene	25.0	23.8		ug/L		95	66 - 127
1,2,4-Trichlorobenzene	25.0	25.4		ug/L		102	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	27.4		ug/L		109	56 - 134
1,2-Dichlorobenzene	25.0	25.9		ug/L		104	80 - 124
1,2-Dichloroethane	25.0	25.6		ug/L		103	75 - 120
1,2-Dichloropropane	25.0	24.6		ug/L		99	76 - 120
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	77 - 120
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	80 - 120
2-Butanone (MEK)	125	132		ug/L		106	57 - 140
2-Hexanone	125	124		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	125	135		ug/L		108	71 - 125
Acetone	125	139		ug/L		111	56 - 142
Benzene	25.0	24.7		ug/L		99	71 - 124
Bromodichloromethane	25.0	25.4		ug/L		101	80 - 122
Bromoform	25.0	24.3		ug/L		97	61 - 132
Bromomethane	25.0	26.8		ug/L		107	55 - 144
Carbon disulfide	25.0	24.6		ug/L		98	59 - 134
Carbon tetrachloride	25.0	23.2		ug/L		93	72 - 134
Chlorobenzene	25.0	23.8		ug/L		95	80 - 120
Dibromochloromethane	25.0	25.9		ug/L		104	75 - 125
Chloroethane	25.0	27.7		ug/L		111	69 - 136
Chloroform	25.0	24.8		ug/L		99	73 - 127
Chloromethane	25.0	28.2		ug/L		113	68 - 124
cis-1,2-Dichloroethene	25.0	24.9		ug/L		99	74 - 124
cis-1,3-Dichloropropene	25.0	25.2		ug/L		101	74 - 124
Cyclohexane	25.0	23.4		ug/L		93	59 - 135
Dichlorodifluoromethane	25.0	26.4		ug/L		106	59 - 135
Ethylbenzene	25.0	24.2		ug/L		97	77 - 123
1,2-Dibromoethane	25.0	25.7		ug/L		103	77 - 120
Isopropylbenzene	25.0	27.6		ug/L		110	77 - 122
Methyl acetate	50.0	54.6		ug/L		109	74 - 133
Methyl tert-butyl ether	25.0	26.0		ug/L		104	77 - 120
Methylcyclohexane	25.0	22.9		ug/L		92	68 - 134

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

Lab Sample ID: LCS 480-617790/6
Matrix: Water
Analysis Batch: 617790

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Chloride			25.0	26.1		ug/L		104	75 - 124		
Styrene			25.0	24.8		ug/L		99	80 - 120		
Tetrachloroethene			25.0	22.5		ug/L		90	74 - 122		
Toluene			25.0	24.7		ug/L		99	80 - 122		
trans-1,2-Dichloroethene			25.0	24.9		ug/L		100	73 - 127		
trans-1,3-Dichloropropene			25.0	25.6		ug/L		103	80 - 120		
Trichloroethene			25.0	24.0		ug/L		96	74 - 123		
Trichlorofluoromethane			25.0	26.5		ug/L		106	62 - 150		
Vinyl chloride			25.0	27.0		ug/L		108	65 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-617715/1-A
Matrix: Water
Analysis Batch: 617896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617715

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		03/14/22 09:36	03/15/22 14:23	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 110*	*03/14/22 09:36*	*03/15/22 14:23*	*1*

Lab Sample ID: LCS 480-617715/2-A
Matrix: Water
Analysis Batch: 617896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617715

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	2.16		ug/L		108	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*35*		*15 - 110*

QC Association Summary

Client: Tetra Tech GEO
Job ID: 480-195732-1
Project/Site: GE Pompey, NY Investigation

GC/MS VOA

Analysis Batch: 617790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195732-1	INFLUENT	Total/NA	Water	8260C	
480-195732-2	POST COLUMN 1	Total/NA	Water	8260C	
480-195732-3	POST COLUMN 2	Total/NA	Water	8260C	
480-195732-4	EFFLUENT	Total/NA	Water	8260C	
480-195732-5	TRIP BLANK	Total/NA	Water	8260C	
MB 480-617790/8	Method Blank	Total/NA	Water	8260C	
LCS 480-617790/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 617715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195732-1	INFLUENT	Total/NA	Water	3510C	
480-195732-2	POST COLUMN 1	Total/NA	Water	3510C	
480-195732-3	POST COLUMN 2	Total/NA	Water	3510C	
480-195732-4	EFFLUENT	Total/NA	Water	3510C	
MB 480-617715/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-617715/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 617896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195732-1	INFLUENT	Total/NA	Water	8270D SIM ID	617715
480-195732-2	POST COLUMN 1	Total/NA	Water	8270D SIM ID	617715
480-195732-3	POST COLUMN 2	Total/NA	Water	8270D SIM ID	617715
480-195732-4	EFFLUENT	Total/NA	Water	8270D SIM ID	617715
MB 480-617715/1-A	Method Blank	Total/NA	Water	8270D SIM ID	617715
LCS 480-617715/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	617715

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 480-195732-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: INFLUENT
Lab Sample ID: 480-195732-1
Date Collected: 03/10/22 18:13
Matrix: Water
Date Received: 03/12/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	617790	03/15/22 03:14	AXK	TAL BUF
Total/NA	Prep	3510C			617715	03/14/22 09:43	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	617896	03/15/22 21:43	PJQ	TAL BUF

Client Sample ID: POST COLUMN 1
Lab Sample ID: 480-195732-2
Date Collected: 03/10/22 18:25
Matrix: Water
Date Received: 03/12/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	617790	03/15/22 03:36	AXK	TAL BUF
Total/NA	Prep	3510C			617715	03/14/22 09:43	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	617896	03/15/22 22:06	PJQ	TAL BUF

Client Sample ID: POST COLUMN 2
Lab Sample ID: 480-195732-3
Date Collected: 03/10/22 18:50
Matrix: Water
Date Received: 03/12/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	617790	03/15/22 03:58	AXK	TAL BUF
Total/NA	Prep	3510C			617715	03/14/22 09:43	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	617896	03/15/22 22:28	PJQ	TAL BUF

Client Sample ID: EFFLUENT
Lab Sample ID: 480-195732-4
Date Collected: 03/10/22 18:00
Matrix: Water
Date Received: 03/12/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	617790	03/15/22 04:20	AXK	TAL BUF
Total/NA	Prep	3510C			617715	03/14/22 09:43	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	617896	03/15/22 22:50	PJQ	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-195732-5
Date Collected: 03/10/22 00:00
Matrix: Water
Date Received: 03/12/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	617790	03/15/22 04:42	AXK	TAL BUF

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-195732-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-NY044	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,4-Dichlorobenzene
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone (MIBK)
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Bromomethane
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Cyclohexane
8260C		Water	Dibromochloromethane
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethylbenzene
8260C		Water	Isopropylbenzene
8260C		Water	Methyl acetate
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylcyclohexane
8260C		Water	Methylene Chloride
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-195732-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total
8270D SIM ID	3510C	Water	1,4-Dioxane

Method Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-195732-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-195732-1	INFLUENT	Water	03/10/22 18:13	03/12/22 08:00
480-195732-2	POST COLUMN 1	Water	03/10/22 18:25	03/12/22 08:00
480-195732-3	POST COLUMN 2	Water	03/10/22 18:50	03/12/22 08:00
480-195732-4	EFFLUENT	Water	03/10/22 18:00	03/12/22 08:00
480-195732-5	TRIP BLANK	Water	03/10/22 00:00	03/12/22 08:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Bailey Kudla-Williams	Lab PM: Fischer, Brian J	Carrier Tracking No(s): Syracuse #225	COC No: 480-169454-36972.3
Client Contact: Ms. Bailey Kudla-Williams	Phone: 805-501-8053	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: Page ~~3 of 3~~ 1 of 1
Company: Tetra Tech GEO	PWSID:	Analysis Requested		Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:			Preservation Codes:
City: Rochester	TAT Requested (days): Standard			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
Influent	3-10-22	1813	G	Water			X	X	5	
Post Column 1	↓	1825	G	Water			X	X	5	
Post Column 2		1850	G	Water			X	X	5	
Effluent		1900	G	Water			X	X	5	
Trip Blank	—	—	—	Water				X	1	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

BKW

480-195732 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 03/11/22, 09:25	Company	Received by:	Date/Time: 3/11/22 9:25	Company
Relinquished by: Relinquish	Date/Time: 3-11-22, 1900	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 3/12/22 800	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3 #1

Ver: 06/08/2021

MARCH 24, 2022 COMLPLETE ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-196137-1
Client Project/Site: GE Pompey, NY Investigation

For:
Tetra Tech GEO
3136 South Winton Road
Suite 303
Rochester, New York 14623

Attn: Ms. Bailey Kudla-Williams

Authorized for release by:
4/1/2022 12:10:33 PM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-196137-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-196137-1

Comments
No additional comments.

Receipt
The samples were received on 3/25/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Influent (480-196137-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method 8270D SIM ID: The 1,4-Dioxane result reported for samples Influent (480-196137-1), Post Column 1 (480-196137-2) and Post Column 2 (480-196137-3) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

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

Detection Summary

Client: Tetra Tech GEO
Job ID: 480-196137-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: Influent — Lab Sample ID: 480-196137-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	24		4.0	1.5	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	170		4.0	3.2	ug/L	4		8260C	Total/NA
Trichloroethene	3.3	J	4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	5.3		4.0	3.6	ug/L	4		8260C	Total/NA
1,4-Dioxane	76	E	0.21	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: Post Column 1 — Lab Sample ID: 480-196137-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.9	J	10	3.0	ug/L	1		8260C	Total/NA
Carbon disulfide	0.41	J	1.0	0.19	ug/L	1		8260C	Total/NA
1,4-Dioxane	91	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: Post Column 2 — Lab Sample ID: 480-196137-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	130		10	1.3	ug/L	1		8260C	Total/NA
Acetone	65		10	3.0	ug/L	1		8260C	Total/NA
Carbon disulfide	0.39	J	1.0	0.19	ug/L	1		8260C	Total/NA
1,4-Dioxane	20	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: Effluent — Lab Sample ID: 480-196137-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.7		1.0	0.19	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.26		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-196137-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Client Sample ID: Influent
Date Collected: 03/24/22 15:55
Date Received: 03/25/22 10:00

Lab Sample ID: 480-196137-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			03/26/22 05:45	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			03/26/22 05:45	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			03/26/22 05:45	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			03/26/22 05:45	4
1,1-Dichloroethane	**24**		4.0	1.5	ug/L			03/26/22 05:45	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			03/26/22 05:45	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			03/26/22 05:45	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			03/26/22 05:45	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			03/26/22 05:45	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			03/26/22 05:45	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			03/26/22 05:45	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			03/26/22 05:45	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			03/26/22 05:45	4
2-Butanone (MEK)	ND		40	5.3	ug/L			03/26/22 05:45	4
2-Hexanone	ND		20	5.0	ug/L			03/26/22 05:45	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			03/26/22 05:45	4
Acetone	ND		40	12	ug/L			03/26/22 05:45	4
Benzene	ND		4.0	1.6	ug/L			03/26/22 05:45	4
Bromodichloromethane	ND		4.0	1.6	ug/L			03/26/22 05:45	4
Bromoform	ND		4.0	1.0	ug/L			03/26/22 05:45	4
Bromomethane	ND		4.0	2.8	ug/L			03/26/22 05:45	4
Carbon disulfide	ND		4.0	0.76	ug/L			03/26/22 05:45	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			03/26/22 05:45	4
Chlorobenzene	ND		4.0	3.0	ug/L			03/26/22 05:45	4
Dibromochloromethane	ND		4.0	1.3	ug/L			03/26/22 05:45	4
Chloroethane	ND		4.0	1.3	ug/L			03/26/22 05:45	4
Chloroform	ND		4.0	1.4	ug/L			03/26/22 05:45	4
Chloromethane	ND		4.0	1.4	ug/L			03/26/22 05:45	4
cis-1,2-Dichloroethene	**170**		4.0	3.2	ug/L			03/26/22 05:45	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			03/26/22 05:45	4
Cyclohexane	ND		4.0	0.72	ug/L			03/26/22 05:45	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			03/26/22 05:45	4
Ethylbenzene	ND		4.0	3.0	ug/L			03/26/22 05:45	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			03/26/22 05:45	4
Isopropylbenzene	ND		4.0	3.2	ug/L			03/26/22 05:45	4
Methyl acetate	ND		10	5.2	ug/L			03/26/22 05:45	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			03/26/22 05:45	4
Methylcyclohexane	ND		4.0	0.64	ug/L			03/26/22 05:45	4
Methylene Chloride	ND		4.0	1.8	ug/L			03/26/22 05:45	4
Styrene	ND		4.0	2.9	ug/L			03/26/22 05:45	4
Tetrachloroethene	ND		4.0	1.4	ug/L			03/26/22 05:45	4
Toluene	ND		4.0	2.0	ug/L			03/26/22 05:45	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			03/26/22 05:45	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			03/26/22 05:45	4
Trichloroethene	**3.3**	**J**	4.0	1.8	ug/L			03/26/22 05:45	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			03/26/22 05:45	4
Vinyl chloride	**5.3**		4.0	3.6	ug/L			03/26/22 05:45	4
Xylenes, Total	ND		8.0	2.6	ug/L			03/26/22 05:45	4

Client Sample ID: Influent
Lab Sample ID: 480-196137-1

Date Collected: 03/24/22 15:55
Matrix: Water
Date Received: 03/25/22 10:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*03/26/22 05:45*	*4*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*03/26/22 05:45*	*4*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*03/26/22 05:45*	*4*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*03/26/22 05:45*	*4*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**76**	**E**	0.21	0.10	ug/L		03/29/22 09:29	03/30/22 15:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*03/29/22 09:29*	*03/30/22 15:00*	*1*

Client Sample ID: Post Column 1
Lab Sample ID: 480-196137-2

Date Collected: 03/24/22 16:05
Matrix: Water
Date Received: 03/25/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/26/22 06:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/26/22 06:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/26/22 06:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/26/22 06:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/26/22 06:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/26/22 06:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/26/22 06:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/26/22 06:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/26/22 06:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/26/22 06:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/26/22 06:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/26/22 06:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/26/22 06:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/26/22 06:07	1
2-Hexanone	ND		5.0	1.2	ug/L			03/26/22 06:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/26/22 06:07	1
Acetone	**5.9**	**J**	10	3.0	ug/L			03/26/22 06:07	1
Benzene	ND		1.0	0.41	ug/L			03/26/22 06:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/26/22 06:07	1
Bromoform	ND		1.0	0.26	ug/L			03/26/22 06:07	1
Bromomethane	ND		1.0	0.69	ug/L			03/26/22 06:07	1
Carbon disulfide	**0.41**	**J**	1.0	0.19	ug/L			03/26/22 06:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/26/22 06:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/26/22 06:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/26/22 06:07	1
Chloroethane	ND		1.0	0.32	ug/L			03/26/22 06:07	1
Chloroform	ND		1.0	0.34	ug/L			03/26/22 06:07	1
Chloromethane	ND		1.0	0.35	ug/L			03/26/22 06:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/26/22 06:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/26/22 06:07	1
Cyclohexane	ND		1.0	0.18	ug/L			03/26/22 06:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/26/22 06:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/26/22 06:07	1

Client Sample ID: Post Column 1

Lab Sample ID: 480-196137-2

Date Collected: 03/24/22 16:05

Matrix: Water

Date Received: 03/25/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/26/22 06:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/26/22 06:07	1
Methyl acetate	ND		2.5	1.3	ug/L			03/26/22 06:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/26/22 06:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/26/22 06:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/26/22 06:07	1
Styrene	ND		1.0	0.73	ug/L			03/26/22 06:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/26/22 06:07	1
Toluene	ND		1.0	0.51	ug/L			03/26/22 06:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/26/22 06:07	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/26/22 06:07	1
Trichloroethene	ND		1.0	0.46	ug/L			03/26/22 06:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/26/22 06:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/26/22 06:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/26/22 06:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/26/22 06:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*03/26/22 06:07*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*03/26/22 06:07*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*03/26/22 06:07*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**91**	**E**	0.20	0.10	ug/L		03/29/22 09:29	03/30/22 15:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*28*		*15 - 110*	*03/29/22 09:29*	*03/30/22 15:22*	*1*

Client Sample ID: Post Column 2

Lab Sample ID: 480-196137-3

Date Collected: 03/24/22 16:12

Matrix: Water

Date Received: 03/25/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/26/22 06:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/26/22 06:30	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/26/22 06:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/26/22 06:30	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/26/22 06:30	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/26/22 06:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/26/22 06:30	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/26/22 06:30	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/26/22 06:30	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/26/22 06:30	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/26/22 06:30	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/26/22 06:30	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/26/22 06:30	1
2-Butanone (MEK)	**130**		10	1.3	ug/L			03/26/22 06:30	1
2-Hexanone	ND		5.0	1.2	ug/L			03/26/22 06:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/26/22 06:30	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Client Sample ID: Post Column 2
Date Collected: 03/24/22 16:12
Date Received: 03/25/22 10:00

Lab Sample ID: 480-196137-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**65**		10	3.0	ug/L			03/26/22 06:30	1
Benzene	ND		1.0	0.41	ug/L			03/26/22 06:30	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/26/22 06:30	1
Bromoform	ND		1.0	0.26	ug/L			03/26/22 06:30	1
Bromomethane	ND		1.0	0.69	ug/L			03/26/22 06:30	1
Carbon disulfide	**0.39**	**J**	1.0	0.19	ug/L			03/26/22 06:30	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/26/22 06:30	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/26/22 06:30	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/26/22 06:30	1
Chloroethane	ND		1.0	0.32	ug/L			03/26/22 06:30	1
Chloroform	ND		1.0	0.34	ug/L			03/26/22 06:30	1
Chloromethane	ND		1.0	0.35	ug/L			03/26/22 06:30	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/26/22 06:30	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/26/22 06:30	1
Cyclohexane	ND		1.0	0.18	ug/L			03/26/22 06:30	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/26/22 06:30	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/26/22 06:30	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/26/22 06:30	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/26/22 06:30	1
Methyl acetate	ND		2.5	1.3	ug/L			03/26/22 06:30	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/26/22 06:30	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/26/22 06:30	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/26/22 06:30	1
Styrene	ND		1.0	0.73	ug/L			03/26/22 06:30	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/26/22 06:30	1
Toluene	ND		1.0	0.51	ug/L			03/26/22 06:30	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/26/22 06:30	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/26/22 06:30	1
Trichloroethene	ND		1.0	0.46	ug/L			03/26/22 06:30	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/26/22 06:30	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/26/22 06:30	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/26/22 06:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/26/22 06:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*03/26/22 06:30*	*1*
4-Bromofluorobenzene (Surr)	*85*		*73 - 120*		*03/26/22 06:30*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*03/26/22 06:30*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**20**	**E**	0.20	0.10	ug/L		03/29/22 09:29	03/30/22 15:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*03/29/22 09:29*	*03/30/22 15:44*	*1*

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Client Sample ID: Effluent
Date Collected: 03/24/22 16:30
Date Received: 03/25/22 10:00

Lab Sample ID: 480-196137-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/26/22 06:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/26/22 06:52	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/26/22 06:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/26/22 06:52	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/26/22 06:52	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/26/22 06:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/26/22 06:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/26/22 06:52	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/26/22 06:52	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/26/22 06:52	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/26/22 06:52	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/26/22 06:52	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/26/22 06:52	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/26/22 06:52	1
2-Hexanone	ND		5.0	1.2	ug/L			03/26/22 06:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/26/22 06:52	1
Acetone	ND		10	3.0	ug/L			03/26/22 06:52	1
Benzene	ND		1.0	0.41	ug/L			03/26/22 06:52	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/26/22 06:52	1
Bromoform	ND		1.0	0.26	ug/L			03/26/22 06:52	1
Bromomethane	ND		1.0	0.69	ug/L			03/26/22 06:52	1
Carbon disulfide	**1.7**		1.0	0.19	ug/L			03/26/22 06:52	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/26/22 06:52	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/26/22 06:52	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/26/22 06:52	1
Chloroethane	ND		1.0	0.32	ug/L			03/26/22 06:52	1
Chloroform	ND		1.0	0.34	ug/L			03/26/22 06:52	1
Chloromethane	ND		1.0	0.35	ug/L			03/26/22 06:52	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/26/22 06:52	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/26/22 06:52	1
Cyclohexane	ND		1.0	0.18	ug/L			03/26/22 06:52	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/26/22 06:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/26/22 06:52	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/26/22 06:52	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/26/22 06:52	1
Methyl acetate	ND		2.5	1.3	ug/L			03/26/22 06:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/26/22 06:52	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/26/22 06:52	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/26/22 06:52	1
Styrene	ND		1.0	0.73	ug/L			03/26/22 06:52	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/26/22 06:52	1
Toluene	ND		1.0	0.51	ug/L			03/26/22 06:52	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/26/22 06:52	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/26/22 06:52	1
Trichloroethene	ND		1.0	0.46	ug/L			03/26/22 06:52	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/26/22 06:52	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/26/22 06:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/26/22 06:52	1

Client Sample ID: Effluent
Lab Sample ID: 480-196137-4

Date Collected: 03/24/22 16:30
Matrix: Water
Date Received: 03/25/22 10:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/22 06:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*03/26/22 06:52*	*1*
4-Bromofluorobenzene (Surr)	*82*		*73 - 120*		*03/26/22 06:52*	*1*
Dibromofluoromethane (Surr)	*116*		*75 - 123*		*03/26/22 06:52*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.26**		0.20	0.10	ug/L		03/29/22 09:29	03/30/22 16:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*28*		*15 - 110*	*03/29/22 09:29*	*03/30/22 16:06*	*1*

Client Sample ID: Trip Blank
Lab Sample ID: 480-196137-5

Date Collected: 03/24/22 00:00
Matrix: Water
Date Received: 03/25/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/26/22 07:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/26/22 07:14	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/26/22 07:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/26/22 07:14	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/26/22 07:14	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/26/22 07:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/26/22 07:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/26/22 07:14	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/26/22 07:14	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/26/22 07:14	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/26/22 07:14	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/26/22 07:14	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/26/22 07:14	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/26/22 07:14	1
2-Hexanone	ND		5.0	1.2	ug/L			03/26/22 07:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/26/22 07:14	1
Acetone	ND		10	3.0	ug/L			03/26/22 07:14	1
Benzene	ND		1.0	0.41	ug/L			03/26/22 07:14	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/26/22 07:14	1
Bromoform	ND		1.0	0.26	ug/L			03/26/22 07:14	1
Bromomethane	ND		1.0	0.69	ug/L			03/26/22 07:14	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/26/22 07:14	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/26/22 07:14	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/26/22 07:14	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/26/22 07:14	1
Chloroethane	ND		1.0	0.32	ug/L			03/26/22 07:14	1
Chloroform	ND		1.0	0.34	ug/L			03/26/22 07:14	1
Chloromethane	ND		1.0	0.35	ug/L			03/26/22 07:14	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/26/22 07:14	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/26/22 07:14	1
Cyclohexane	ND		1.0	0.18	ug/L			03/26/22 07:14	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/26/22 07:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/26/22 07:14	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Client Sample ID: Trip Blank
Date Collected: 03/24/22 00:00
Date Received: 03/25/22 10:00

Lab Sample ID: 480-196137-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/26/22 07:14	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/26/22 07:14	1
Methyl acetate	ND		2.5	1.3	ug/L			03/26/22 07:14	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/26/22 07:14	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/26/22 07:14	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/26/22 07:14	1
Styrene	ND		1.0	0.73	ug/L			03/26/22 07:14	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/26/22 07:14	1
Toluene	ND		1.0	0.51	ug/L			03/26/22 07:14	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/26/22 07:14	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/26/22 07:14	1
Trichloroethene	ND		1.0	0.46	ug/L			03/26/22 07:14	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/26/22 07:14	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/26/22 07:14	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/26/22 07:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/26/22 07:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*03/26/22 07:14*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*03/26/22 07:14*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 123*		*03/26/22 07:14*	*1*

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-196137-1	Influent	95	112	90	110
480-196137-2	Post Column 1	96	111	87	111
480-196137-3	Post Column 2	98	113	85	111
480-196137-4	Effluent	99	113	82	116
480-196137-5	Trip Blank	96	114	86	115
LCS 480-619200/6	Lab Control Sample	96	102	91	97
MB 480-619200/8	Method Blank	100	109	85	109

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Isotope Dilution Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(15-110)
480-196137-1	Influent	29
480-196137-2	Post Column 1	28
480-196137-3	Post Column 2	30
480-196137-4	Effluent	28
LCS 480-619488/2-A	Lab Control Sample	33
MB 480-619488/1-A	Method Blank	32

Surrogate Legend

DXE = 1,4-Dioxane-d8

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

Lab Sample ID: MB 480-619200/8
Matrix: Water
Analysis Batch: 619200

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/26/22 00:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/26/22 00:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/26/22 00:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/26/22 00:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/26/22 00:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/26/22 00:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/26/22 00:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/26/22 00:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/26/22 00:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/26/22 00:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/26/22 00:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/26/22 00:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/26/22 00:35	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/26/22 00:35	1
2-Hexanone	ND		5.0	1.2	ug/L			03/26/22 00:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/26/22 00:35	1
Acetone	ND		10	3.0	ug/L			03/26/22 00:35	1
Benzene	ND		1.0	0.41	ug/L			03/26/22 00:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/26/22 00:35	1
Bromoform	ND		1.0	0.26	ug/L			03/26/22 00:35	1
Bromomethane	ND		1.0	0.69	ug/L			03/26/22 00:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/26/22 00:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/26/22 00:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/26/22 00:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/26/22 00:35	1
Chloroethane	ND		1.0	0.32	ug/L			03/26/22 00:35	1
Chloroform	ND		1.0	0.34	ug/L			03/26/22 00:35	1
Chloromethane	ND		1.0	0.35	ug/L			03/26/22 00:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/26/22 00:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/26/22 00:35	1
Cyclohexane	ND		1.0	0.18	ug/L			03/26/22 00:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/26/22 00:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/26/22 00:35	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/26/22 00:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/26/22 00:35	1
Methyl acetate	ND		2.5	1.3	ug/L			03/26/22 00:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/26/22 00:35	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/26/22 00:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/26/22 00:35	1
Styrene	ND		1.0	0.73	ug/L			03/26/22 00:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/26/22 00:35	1
Toluene	ND		1.0	0.51	ug/L			03/26/22 00:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/26/22 00:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/26/22 00:35	1
Trichloroethene	ND		1.0	0.46	ug/L			03/26/22 00:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/26/22 00:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/26/22 00:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/26/22 00:35	1

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

Lab Sample ID: MB 480-619200/8
Matrix: Water
Analysis Batch: 619200

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/22 00:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*03/26/22 00:35*	*1*
4-Bromofluorobenzene (Surr)	*85*		*73 - 120*		*03/26/22 00:35*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*03/26/22 00:35*	*1*

Lab Sample ID: LCS 480-619200/6
Matrix: Water
Analysis Batch: 619200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	21.9		ug/L		88	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.4		ug/L		105	76 - 120
1,1,2-Trichloroethane	25.0	24.3		ug/L		97	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	20.1		ug/L		80	61 - 148
1,1-Dichloroethane	25.0	23.3		ug/L		93	77 - 120
1,1-Dichloroethene	25.0	20.9		ug/L		83	66 - 127
1,2,4-Trichlorobenzene	25.0	23.8		ug/L		95	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	28.7		ug/L		115	56 - 134
1,2-Dichlorobenzene	25.0	23.8		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	25.2		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	23.7		ug/L		95	76 - 120
1,3-Dichlorobenzene	25.0	23.2		ug/L		93	77 - 120
1,4-Dichlorobenzene	25.0	23.1		ug/L		92	80 - 120
2-Butanone (MEK)	125	136		ug/L		108	57 - 140
2-Hexanone	125	141		ug/L		113	65 - 127
4-Methyl-2-pentanone (MIBK)	125	140		ug/L		112	71 - 125
Acetone	125	136		ug/L		109	56 - 142
Benzene	25.0	22.8		ug/L		91	71 - 124
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	25.0		ug/L		100	61 - 132
Bromomethane	25.0	25.3		ug/L		101	55 - 144
Carbon disulfide	25.0	20.8		ug/L		83	59 - 134
Carbon tetrachloride	25.0	21.8		ug/L		87	72 - 134
Chlorobenzene	25.0	22.4		ug/L		90	80 - 120
Dibromochloromethane	25.0	25.2		ug/L		101	75 - 125
Chloroethane	25.0	26.8		ug/L		107	69 - 136
Chloroform	25.0	22.7		ug/L		91	73 - 127
Chloromethane	25.0	26.6		ug/L		106	68 - 124
cis-1,2-Dichloroethene	25.0	21.8		ug/L		87	74 - 124
cis-1,3-Dichloropropene	25.0	24.5		ug/L		98	74 - 124
Cyclohexane	25.0	21.2		ug/L		85	59 - 135
Dichlorodifluoromethane	25.0	23.5		ug/L		94	59 - 135
Ethylbenzene	25.0	22.4		ug/L		90	77 - 123
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120
Isopropylbenzene	25.0	24.2		ug/L		97	77 - 122
Methyl acetate	50.0	53.8		ug/L		108	74 - 133
Methyl tert-butyl ether	25.0	23.7		ug/L		95	77 - 120
Methylcyclohexane	25.0	20.1		ug/L		80	68 - 134

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

Lab Sample ID: LCS 480-619200/6
Matrix: Water
Analysis Batch: 619200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	25.0	23.4		ug/L		93	75 - 124
Styrene	25.0	24.2		ug/L		97	80 - 120
Tetrachloroethene	25.0	20.3		ug/L		81	74 - 122
Toluene	25.0	22.6		ug/L		91	80 - 122
trans-1,2-Dichloroethene	25.0	21.9		ug/L		87	73 - 127
trans-1,3-Dichloropropene	25.0	24.9		ug/L		100	80 - 120
Trichloroethene	25.0	22.0		ug/L		88	74 - 123
Trichlorofluoromethane	25.0	26.5		ug/L		106	62 - 150
Vinyl chloride	25.0	25.6		ug/L		102	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*
Dibromofluoromethane (Surr)	*97*		*75 - 123*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-619488/1-A
Matrix: Water
Analysis Batch: 619703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619488

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		03/29/22 09:29	03/30/22 13:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*32*		*15 - 110*	*03/29/22 09:29*	*03/30/22 13:08*	*1*

Lab Sample ID: LCS 480-619488/2-A
Matrix: Water
Analysis Batch: 619703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	2.19		ug/L		110	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*33*		*15 - 110*

QC Association Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

GC/MS VOA

Analysis Batch: 619200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196137-1	Influent	Total/NA	Water	8260C	
480-196137-2	Post Column 1	Total/NA	Water	8260C	
480-196137-3	Post Column 2	Total/NA	Water	8260C	
480-196137-4	Effluent	Total/NA	Water	8260C	
480-196137-5	Trip Blank	Total/NA	Water	8260C	
MB 480-619200/8	Method Blank	Total/NA	Water	8260C	
LCS 480-619200/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 619488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196137-1	Influent	Total/NA	Water	3510C	
480-196137-2	Post Column 1	Total/NA	Water	3510C	
480-196137-3	Post Column 2	Total/NA	Water	3510C	
480-196137-4	Effluent	Total/NA	Water	3510C	
MB 480-619488/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-619488/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 619703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196137-1	Influent	Total/NA	Water	8270D SIM ID	619488
480-196137-2	Post Column 1	Total/NA	Water	8270D SIM ID	619488
480-196137-3	Post Column 2	Total/NA	Water	8270D SIM ID	619488
480-196137-4	Effluent	Total/NA	Water	8270D SIM ID	619488
MB 480-619488/1-A	Method Blank	Total/NA	Water	8270D SIM ID	619488
LCS 480-619488/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	619488

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 480-196137-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: Influent
Lab Sample ID: 480-196137-1
Date Collected: 03/24/22 15:55
Matrix: Water
Date Received: 03/25/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	619200	03/26/22 05:45	CRL	TAL BUF
Total/NA	Prep	3510C			619488	03/29/22 09:29	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	619703	03/30/22 15:00	PJQ	TAL BUF

Client Sample ID: Post Column 1
Lab Sample ID: 480-196137-2
Date Collected: 03/24/22 16:05
Matrix: Water
Date Received: 03/25/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	619200	03/26/22 06:07	CRL	TAL BUF
Total/NA	Prep	3510C			619488	03/29/22 09:29	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	619703	03/30/22 15:22	PJQ	TAL BUF

Client Sample ID: Post Column 2
Lab Sample ID: 480-196137-3
Date Collected: 03/24/22 16:12
Matrix: Water
Date Received: 03/25/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	619200	03/26/22 06:30	CRL	TAL BUF
Total/NA	Prep	3510C			619488	03/29/22 09:29	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	619703	03/30/22 15:44	PJQ	TAL BUF

Client Sample ID: Effluent
Lab Sample ID: 480-196137-4
Date Collected: 03/24/22 16:30
Matrix: Water
Date Received: 03/25/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	619200	03/26/22 06:52	CRL	TAL BUF
Total/NA	Prep	3510C			619488	03/29/22 09:29	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	619703	03/30/22 16:06	PJQ	TAL BUF

Client Sample ID: Trip Blank
Lab Sample ID: 480-196137-5
Date Collected: 03/24/22 00:00
Matrix: Water
Date Received: 03/25/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	619200	03/26/22 07:14	CRL	TAL BUF

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-196137-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-NY044	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,4-Dichlorobenzene
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone (MIBK)
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Bromomethane
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Cyclohexane
8260C		Water	Dibromochloromethane
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethylbenzene
8260C		Water	Isopropylbenzene
8260C		Water	Methyl acetate
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylcyclohexane
8260C		Water	Methylene Chloride
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-196137-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total
8270D SIM ID	3510C	Water	1,4-Dioxane

Method Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196137-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-196137-1	Influent	Water	03/24/22 15:55	03/25/22 10:00
480-196137-2	Post Column 1	Water	03/24/22 16:05	03/25/22 10:00
480-196137-3	Post Column 2	Water	03/24/22 16:12	03/25/22 10:00
480-196137-4	Effluent	Water	03/24/22 16:30	03/25/22 10:00
480-196137-5	Trip Blank	Water	03/24/22 00:00	03/25/22 10:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Bailey Kudla-Williams	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.4
Client Contact: Ms. Bailey Kudla-Williams	Phone: 805-501-8053	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: ~~Page 4 of 5~~ 1 of 1
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:			
City: Rochester	TAT Requested (days): Standard			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Analysis Requested

480-196137 Chain of Custody

Preservation Codes:
A - HCl
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
Influent	3-24-22	1555	G	Water			X	X	5	
Post Column1		1605	G	Water			X	X	5	
Post Column2		1612	G	Water			X	X	5	
Effluent		1630	G	Water			X	X	5	
Trip Blank	—	—	—	Water				X	1	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

BKW

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3-24-22 1825	T+		3-24-22, 18:25	Eyn
2	Relinquished by:	3-24-22, 1900	Eyn	Received by:	3/25/22 1000	TA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3 # ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 480-196137-1

Login Number: 196137

List Source: Eurofins Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

MARCH 30, 2022 COMLPLETE ANALYTICAL RESULTS

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ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-196310-1
Client Project/Site: GE Pompey, NY Investigation

For:
Tetra Tech GEO
3136 South Winton Road
Suite 303
Rochester, New York 14623

Attn: Ms. Bailey Kudla-Williams

Authorized for release by:
4/8/2022 12:00:03 PM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@et.eurofinsus.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: Tetra Tech GEO
Job ID: 480-196310-1
Project/Site: GE Pompey, NY Investigation

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-196310-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-196310-1

Comments
No additional comments.

Receipt
The samples were received on 4/1/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: INFLUENT (480-196310-1), (480-196310-C-1 MS) and (480-196310-C-1 MSD). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method 8270D SIM ID: The 1,4-Dioxane result reported for sample POST COLUMN 2 (480-196310-3) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

Method 8270D SIM ID: The following samples were diluted to bring the concentration of target analytes within the calibration range: INFLUENT (480-196310-1) and POST COLUMN 1 (480-196310-2). Elevated reporting limits (RLs) are provided.

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

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

Detection Summary

Client: Tetra Tech GEO
Job ID: 480-196310-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: INFLUENT — Lab Sample ID: 480-196310-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	12		4.0	1.5	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	99	F1	4.0	3.2	ug/L	4		8260C	Total/NA
Vinyl chloride	5.3		4.0	3.6	ug/L	4		8260C	Total/NA
1,4-Dioxane	70		1.0	0.50	ug/L	5		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 1 — Lab Sample ID: 480-196310-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	81		1.0	0.50	ug/L	5		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 2 — Lab Sample ID: 480-196310-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.7	J	10	1.3	ug/L	1		8260C	Total/NA
Acetone	4.4	J	10	3.0	ug/L	1		8260C	Total/NA
1,4-Dioxane	49	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: EFFLUENT — Lab Sample ID: 480-196310-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.9		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-196310-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

Client Sample ID: INFLUENT
Date Collected: 03/30/22 17:35
Date Received: 04/01/22 08:00

Lab Sample ID: 480-196310-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			04/02/22 18:27	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			04/02/22 18:27	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			04/02/22 18:27	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			04/02/22 18:27	4
1,1-Dichloroethane	**12**		4.0	1.5	ug/L			04/02/22 18:27	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			04/02/22 18:27	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			04/02/22 18:27	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			04/02/22 18:27	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			04/02/22 18:27	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			04/02/22 18:27	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			04/02/22 18:27	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			04/02/22 18:27	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			04/02/22 18:27	4
2-Butanone (MEK)	ND		40	5.3	ug/L			04/02/22 18:27	4
2-Hexanone	ND		20	5.0	ug/L			04/02/22 18:27	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			04/02/22 18:27	4
Acetone	ND		40	12	ug/L			04/02/22 18:27	4
Benzene	ND		4.0	1.6	ug/L			04/02/22 18:27	4
Bromodichloromethane	ND		4.0	1.6	ug/L			04/02/22 18:27	4
Bromoform	ND		4.0	1.0	ug/L			04/02/22 18:27	4
Bromomethane	ND		4.0	2.8	ug/L			04/02/22 18:27	4
Carbon disulfide	ND		4.0	0.76	ug/L			04/02/22 18:27	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			04/02/22 18:27	4
Chlorobenzene	ND		4.0	3.0	ug/L			04/02/22 18:27	4
Dibromochloromethane	ND		4.0	1.3	ug/L			04/02/22 18:27	4
Chloroethane	ND		4.0	1.3	ug/L			04/02/22 18:27	4
Chloroform	ND		4.0	1.4	ug/L			04/02/22 18:27	4
Chloromethane	ND		4.0	1.4	ug/L			04/02/22 18:27	4
cis-1,2-Dichloroethene	**99**	**F1**	4.0	3.2	ug/L			04/02/22 18:27	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			04/02/22 18:27	4
Cyclohexane	ND		4.0	0.72	ug/L			04/02/22 18:27	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			04/02/22 18:27	4
Ethylbenzene	ND		4.0	3.0	ug/L			04/02/22 18:27	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			04/02/22 18:27	4
Isopropylbenzene	ND		4.0	3.2	ug/L			04/02/22 18:27	4
Methyl acetate	ND		10	5.2	ug/L			04/02/22 18:27	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			04/02/22 18:27	4
Methylcyclohexane	ND		4.0	0.64	ug/L			04/02/22 18:27	4
Methylene Chloride	ND		4.0	1.8	ug/L			04/02/22 18:27	4
Styrene	ND		4.0	2.9	ug/L			04/02/22 18:27	4
Tetrachloroethene	ND		4.0	1.4	ug/L			04/02/22 18:27	4
Toluene	ND		4.0	2.0	ug/L			04/02/22 18:27	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			04/02/22 18:27	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			04/02/22 18:27	4
Trichloroethene	ND		4.0	1.8	ug/L			04/02/22 18:27	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			04/02/22 18:27	4
Vinyl chloride	**5.3**		4.0	3.6	ug/L			04/02/22 18:27	4
Xylenes, Total	ND		8.0	2.6	ug/L			04/02/22 18:27	4

Client Sample ID: INFLUENT
Lab Sample ID: 480-196310-1

Date Collected: 03/30/22 17:35
Matrix: Water
Date Received: 04/01/22 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*80 - 120*		*04/02/22 18:27*	*4*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*04/02/22 18:27*	*4*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*04/02/22 18:27*	*4*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/02/22 18:27*	*4*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	70		1.0	0.50	ug/L		04/01/22 15:29	04/07/22 14:19	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*04/01/22 15:29*	*04/07/22 14:19*	*5*

Client Sample ID: POST COLUMN 1
Lab Sample ID: 480-196310-2

Date Collected: 03/30/22 17:45
Matrix: Water
Date Received: 04/01/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/02/22 18:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/02/22 18:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/02/22 18:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/02/22 18:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/02/22 18:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/02/22 18:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/02/22 18:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/02/22 18:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/02/22 18:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/02/22 18:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/02/22 18:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/02/22 18:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/02/22 18:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/02/22 18:50	1
2-Hexanone	ND		5.0	1.2	ug/L			04/02/22 18:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/02/22 18:50	1
Acetone	ND		10	3.0	ug/L			04/02/22 18:50	1
Benzene	ND		1.0	0.41	ug/L			04/02/22 18:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/02/22 18:50	1
Bromoform	ND		1.0	0.26	ug/L			04/02/22 18:50	1
Bromomethane	ND		1.0	0.69	ug/L			04/02/22 18:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/02/22 18:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/02/22 18:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/02/22 18:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/02/22 18:50	1
Chloroethane	ND		1.0	0.32	ug/L			04/02/22 18:50	1
Chloroform	ND		1.0	0.34	ug/L			04/02/22 18:50	1
Chloromethane	ND		1.0	0.35	ug/L			04/02/22 18:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/02/22 18:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/02/22 18:50	1
Cyclohexane	ND		1.0	0.18	ug/L			04/02/22 18:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/02/22 18:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/02/22 18:50	1

Client Sample ID: POST COLUMN 1

Lab Sample ID: 480-196310-2

Date Collected: 03/30/22 17:45

Matrix: Water

Date Received: 04/01/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/02/22 18:50	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/02/22 18:50	1
Methyl acetate	ND		2.5	1.3	ug/L			04/02/22 18:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/02/22 18:50	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/02/22 18:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/02/22 18:50	1
Styrene	ND		1.0	0.73	ug/L			04/02/22 18:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/02/22 18:50	1
Toluene	ND		1.0	0.51	ug/L			04/02/22 18:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/02/22 18:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/02/22 18:50	1
Trichloroethene	ND		1.0	0.46	ug/L			04/02/22 18:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/02/22 18:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/02/22 18:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/02/22 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/02/22 18:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/02/22 18:50*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/02/22 18:50*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 123*		*04/02/22 18:50*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**81**		1.0	0.50	ug/L		04/01/22 16:00	04/07/22 14:42	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*23*		*15 - 110*	*04/01/22 16:00*	*04/07/22 14:42*	*5*

Client Sample ID: POST COLUMN 2

Lab Sample ID: 480-196310-3

Date Collected: 03/30/22 17:53

Matrix: Water

Date Received: 04/01/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/02/22 19:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/02/22 19:13	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/02/22 19:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/02/22 19:13	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/02/22 19:13	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/02/22 19:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/02/22 19:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/02/22 19:13	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/02/22 19:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/02/22 19:13	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/02/22 19:13	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/02/22 19:13	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/02/22 19:13	1
2-Butanone (MEK)	**5.7**	**J**	10	1.3	ug/L			04/02/22 19:13	1
2-Hexanone	ND		5.0	1.2	ug/L			04/02/22 19:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/02/22 19:13	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

Client Sample ID: POST COLUMN 2
Date Collected: 03/30/22 17:53
Date Received: 04/01/22 08:00

Lab Sample ID: 480-196310-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	4.4	J	10	3.0	ug/L			04/02/22 19:13	1
Benzene	ND		1.0	0.41	ug/L			04/02/22 19:13	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/02/22 19:13	1
Bromoform	ND		1.0	0.26	ug/L			04/02/22 19:13	1
Bromomethane	ND		1.0	0.69	ug/L			04/02/22 19:13	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/02/22 19:13	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/02/22 19:13	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/02/22 19:13	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/02/22 19:13	1
Chloroethane	ND		1.0	0.32	ug/L			04/02/22 19:13	1
Chloroform	ND		1.0	0.34	ug/L			04/02/22 19:13	1
Chloromethane	ND		1.0	0.35	ug/L			04/02/22 19:13	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/02/22 19:13	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/02/22 19:13	1
Cyclohexane	ND		1.0	0.18	ug/L			04/02/22 19:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/02/22 19:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/02/22 19:13	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/02/22 19:13	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/02/22 19:13	1
Methyl acetate	ND		2.5	1.3	ug/L			04/02/22 19:13	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/02/22 19:13	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/02/22 19:13	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/02/22 19:13	1
Styrene	ND		1.0	0.73	ug/L			04/02/22 19:13	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/02/22 19:13	1
Toluene	ND		1.0	0.51	ug/L			04/02/22 19:13	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/02/22 19:13	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/02/22 19:13	1
Trichloroethene	ND		1.0	0.46	ug/L			04/02/22 19:13	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/02/22 19:13	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/02/22 19:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/02/22 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/02/22 19:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/02/22 19:13*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/02/22 19:13*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*04/02/22 19:13*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	49	E	0.20	0.10	ug/L		04/01/22 15:29	04/06/22 21:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*23*		*15 - 110*	*04/01/22 15:29*	*04/06/22 21:28*	*1*

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

Client Sample ID: EFFLUENT
Date Collected: 03/30/22 18:05
Date Received: 04/01/22 08:00

Lab Sample ID: 480-196310-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/02/22 19:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/02/22 19:38	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/02/22 19:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/02/22 19:38	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/02/22 19:38	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/02/22 19:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/02/22 19:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/02/22 19:38	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/02/22 19:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/02/22 19:38	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/02/22 19:38	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/02/22 19:38	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/02/22 19:38	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/02/22 19:38	1
2-Hexanone	ND		5.0	1.2	ug/L			04/02/22 19:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/02/22 19:38	1
Acetone	ND		10	3.0	ug/L			04/02/22 19:38	1
Benzene	ND		1.0	0.41	ug/L			04/02/22 19:38	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/02/22 19:38	1
Bromoform	ND		1.0	0.26	ug/L			04/02/22 19:38	1
Bromomethane	ND		1.0	0.69	ug/L			04/02/22 19:38	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/02/22 19:38	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/02/22 19:38	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/02/22 19:38	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/02/22 19:38	1
Chloroethane	ND		1.0	0.32	ug/L			04/02/22 19:38	1
Chloroform	ND		1.0	0.34	ug/L			04/02/22 19:38	1
Chloromethane	ND		1.0	0.35	ug/L			04/02/22 19:38	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/02/22 19:38	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/02/22 19:38	1
Cyclohexane	ND		1.0	0.18	ug/L			04/02/22 19:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/02/22 19:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/02/22 19:38	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/02/22 19:38	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/02/22 19:38	1
Methyl acetate	ND		2.5	1.3	ug/L			04/02/22 19:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/02/22 19:38	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/02/22 19:38	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/02/22 19:38	1
Styrene	ND		1.0	0.73	ug/L			04/02/22 19:38	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/02/22 19:38	1
Toluene	ND		1.0	0.51	ug/L			04/02/22 19:38	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/02/22 19:38	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/02/22 19:38	1
Trichloroethene	ND		1.0	0.46	ug/L			04/02/22 19:38	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/02/22 19:38	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/02/22 19:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/02/22 19:38	1

Client Sample ID: EFFLUENT
Lab Sample ID: 480-196310-4

Date Collected: 03/30/22 18:05
Matrix: Water
Date Received: 04/01/22 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/02/22 19:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/02/22 19:38*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*04/02/22 19:38*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*04/02/22 19:38*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.9		0.20	0.10	ug/L		04/01/22 15:29	04/06/22 21:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*04/01/22 15:29*	*04/06/22 21:51*	*1*

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-196310-5

Date Collected: 03/30/22 00:00
Matrix: Water
Date Received: 04/01/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/02/22 20:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/02/22 20:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/02/22 20:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/02/22 20:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/02/22 20:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/02/22 20:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/02/22 20:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/02/22 20:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/02/22 20:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/02/22 20:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/02/22 20:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/02/22 20:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/02/22 20:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/02/22 20:03	1
2-Hexanone	ND		5.0	1.2	ug/L			04/02/22 20:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/02/22 20:03	1
Acetone	ND		10	3.0	ug/L			04/02/22 20:03	1
Benzene	ND		1.0	0.41	ug/L			04/02/22 20:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/02/22 20:03	1
Bromoform	ND		1.0	0.26	ug/L			04/02/22 20:03	1
Bromomethane	ND		1.0	0.69	ug/L			04/02/22 20:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/02/22 20:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/02/22 20:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/02/22 20:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/02/22 20:03	1
Chloroethane	ND		1.0	0.32	ug/L			04/02/22 20:03	1
Chloroform	ND		1.0	0.34	ug/L			04/02/22 20:03	1
Chloromethane	ND		1.0	0.35	ug/L			04/02/22 20:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/02/22 20:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/02/22 20:03	1
Cyclohexane	ND		1.0	0.18	ug/L			04/02/22 20:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/02/22 20:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/02/22 20:03	1

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

Client Sample ID: TRIP BLANK
Date Collected: 03/30/22 00:00
Date Received: 04/01/22 08:00

Lab Sample ID: 480-196310-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/02/22 20:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/02/22 20:03	1
Methyl acetate	ND		2.5	1.3	ug/L			04/02/22 20:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/02/22 20:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/02/22 20:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/02/22 20:03	1
Styrene	ND		1.0	0.73	ug/L			04/02/22 20:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/02/22 20:03	1
Toluene	ND		1.0	0.51	ug/L			04/02/22 20:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/02/22 20:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/02/22 20:03	1
Trichloroethene	ND		1.0	0.46	ug/L			04/02/22 20:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/02/22 20:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/02/22 20:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/02/22 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/02/22 20:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*04/02/22 20:03*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/02/22 20:03*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*04/02/22 20:03*	*1*

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-196310-1	INFLUENT	105	112	103	102
480-196310-1 MS	INFLUENT	100	105	104	95
480-196310-1 MSD	INFLUENT	100	103	97	93
480-196310-2	POST COLUMN 1	98	101	98	93
480-196310-3	POST COLUMN 2	101	102	101	97
480-196310-4	EFFLUENT	101	101	97	94
480-196310-5	TRIP BLANK	102	105	98	95
LCS 480-620181/4	Lab Control Sample	99	104	97	101
MB 480-620181/6	Method Blank	100	103	100	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Isotope Dilution Summary

Client: Tetra Tech GEO
Job ID: 480-196310-1
Project/Site: GE Pompey, NY Investigation

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		DXE						
Lab Sample ID	Client Sample ID	(15-110)						
480-196310-1	INFLUENT	27						
480-196310-2	POST COLUMN 1	23						
480-196310-3	POST COLUMN 2	23						
480-196310-4	EFFLUENT	27						
LCS 480-620117/2-A	Lab Control Sample	34						
LCSD 480-620117/3-A	Lab Control Sample Dup	35						
MB 480-620117/1-A	Method Blank	38						

Surrogate Legend

DXE = 1,4-Dioxane-d8

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

Lab Sample ID: MB 480-620181/6
Matrix: Water
Analysis Batch: 620181

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/02/22 15:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/02/22 15:28	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/02/22 15:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/02/22 15:28	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/02/22 15:28	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/02/22 15:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/02/22 15:28	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/02/22 15:28	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/02/22 15:28	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/02/22 15:28	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/02/22 15:28	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/02/22 15:28	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/02/22 15:28	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/02/22 15:28	1
2-Hexanone	ND		5.0	1.2	ug/L			04/02/22 15:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/02/22 15:28	1
Acetone	ND		10	3.0	ug/L			04/02/22 15:28	1
Benzene	ND		1.0	0.41	ug/L			04/02/22 15:28	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/02/22 15:28	1
Bromoform	ND		1.0	0.26	ug/L			04/02/22 15:28	1
Bromomethane	ND		1.0	0.69	ug/L			04/02/22 15:28	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/02/22 15:28	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/02/22 15:28	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/02/22 15:28	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/02/22 15:28	1
Chloroethane	ND		1.0	0.32	ug/L			04/02/22 15:28	1
Chloroform	ND		1.0	0.34	ug/L			04/02/22 15:28	1
Chloromethane	ND		1.0	0.35	ug/L			04/02/22 15:28	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/02/22 15:28	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/02/22 15:28	1
Cyclohexane	ND		1.0	0.18	ug/L			04/02/22 15:28	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/02/22 15:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/02/22 15:28	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/02/22 15:28	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/02/22 15:28	1
Methyl acetate	ND		2.5	1.3	ug/L			04/02/22 15:28	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/02/22 15:28	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/02/22 15:28	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/02/22 15:28	1
Styrene	ND		1.0	0.73	ug/L			04/02/22 15:28	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/02/22 15:28	1
Toluene	ND		1.0	0.51	ug/L			04/02/22 15:28	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/02/22 15:28	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/02/22 15:28	1
Trichloroethene	ND		1.0	0.46	ug/L			04/02/22 15:28	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/02/22 15:28	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/02/22 15:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/02/22 15:28	1

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

Lab Sample ID: MB 480-620181/6
Matrix: Water
Analysis Batch: 620181

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/02/22 15:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/02/22 15:28*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/02/22 15:28*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*04/02/22 15:28*	*1*

Lab Sample ID: LCS 480-620181/4
Matrix: Water
Analysis Batch: 620181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	24.6		ug/L		98	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.6		ug/L		98	76 - 120
1,1,2-Trichloroethane	25.0	23.9		ug/L		96	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.3		ug/L		93	61 - 148
1,1-Dichloroethane	25.0	23.0		ug/L		92	77 - 120
1,1-Dichloroethene	25.0	24.1		ug/L		96	66 - 127
1,2,4-Trichlorobenzene	25.0	24.2		ug/L		97	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	56 - 134
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	24.1		ug/L		96	75 - 120
1,2-Dichloropropane	25.0	23.1		ug/L		92	76 - 120
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	77 - 120
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	80 - 120
2-Butanone (MEK)	125	92.0		ug/L		74	57 - 140
2-Hexanone	125	120		ug/L		96	65 - 127
4-Methyl-2-pentanone (MIBK)	125	114		ug/L		91	71 - 125
Acetone	125	85.8		ug/L		69	56 - 142
Benzene	25.0	24.0		ug/L		96	71 - 124
Bromodichloromethane	25.0	25.8		ug/L		103	80 - 122
Bromoform	25.0	22.8		ug/L		91	61 - 132
Bromomethane	25.0	25.8		ug/L		103	55 - 144
Carbon disulfide	25.0	23.6		ug/L		94	59 - 134
Carbon tetrachloride	25.0	24.3		ug/L		97	72 - 134
Chlorobenzene	25.0	23.9		ug/L		96	80 - 120
Dibromochloromethane	25.0	23.6		ug/L		95	75 - 125
Chloroethane	25.0	21.9		ug/L		88	69 - 136
Chloroform	25.0	24.7		ug/L		99	73 - 127
Chloromethane	25.0	21.3		ug/L		85	68 - 124
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	24.7		ug/L		99	74 - 124
Cyclohexane	25.0	20.8		ug/L		83	59 - 135
Dichlorodifluoromethane	25.0	20.2		ug/L		81	59 - 135
Ethylbenzene	25.0	24.6		ug/L		98	77 - 123
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120
Isopropylbenzene	25.0	24.9		ug/L		99	77 - 122
Methyl acetate	50.0	56.1		ug/L		112	74 - 133
Methyl tert-butyl ether	25.0	24.1		ug/L		96	77 - 120
Methylcyclohexane	25.0	21.9		ug/L		87	68 - 134

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

Lab Sample ID: LCS 480-620181/4
Matrix: Water
Analysis Batch: 620181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	25.0	22.7		ug/L		91	75 - 124
Styrene	25.0	25.1		ug/L		100	80 - 120
Tetrachloroethene	25.0	23.1		ug/L		92	74 - 122
Toluene	25.0	23.4		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	23.3		ug/L		93	73 - 127
trans-1,3-Dichloropropene	25.0	25.2		ug/L		101	80 - 120
Trichloroethene	25.0	24.3		ug/L		97	74 - 123
Trichlorofluoromethane	25.0	22.2		ug/L		89	62 - 150
Vinyl chloride	25.0	20.2		ug/L		81	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

Lab Sample ID: 480-196310-1 MS
Matrix: Water
Analysis Batch: 620181

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		100	94.6		ug/L		95	73 - 126
1,1,2,2-Tetrachloroethane	ND		100	103		ug/L		103	76 - 120
1,1,2-Trichloroethane	ND		100	104		ug/L		104	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	86.7		ug/L		87	61 - 148
1,1-Dichloroethane	12		100	111		ug/L		99	77 - 120
1,1-Dichloroethene	ND		100	91.1		ug/L		91	66 - 127
1,2,4-Trichlorobenzene	ND		100	86.5		ug/L		87	79 - 122
1,2-Dibromo-3-Chloropropane	ND		100	99.9		ug/L		100	56 - 134
1,2-Dichlorobenzene	ND		100	91.9		ug/L		92	80 - 124
1,2-Dichloroethane	ND		100	101		ug/L		101	75 - 120
1,2-Dichloropropane	ND		100	99.5		ug/L		99	76 - 120
1,3-Dichlorobenzene	ND		100	99.3		ug/L		99	77 - 120
1,4-Dichlorobenzene	ND		100	97.9		ug/L		98	78 - 124
2-Butanone (MEK)	ND		500	562		ug/L		112	57 - 140
2-Hexanone	ND		500	602		ug/L		120	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		500	548		ug/L		110	71 - 125
Acetone	ND		500	437		ug/L		87	56 - 142
Benzene	ND		100	98.0		ug/L		98	71 - 124
Bromodichloromethane	ND		100	103		ug/L		103	80 - 122
Bromoform	ND		100	83.9		ug/L		84	61 - 132
Bromomethane	ND		100	78.1		ug/L		78	55 - 144
Carbon disulfide	ND		100	86.5		ug/L		87	59 - 134
Carbon tetrachloride	ND		100	89.1		ug/L		89	72 - 134
Chlorobenzene	ND		100	101		ug/L		101	80 - 120
Dibromochloromethane	ND		100	93.6		ug/L		94	75 - 125
Chloroethane	ND		100	86.3		ug/L		86	69 - 136
Chloroform	ND		100	95.0		ug/L		95	73 - 127

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

Lab Sample ID: 480-196310-1 MS
Matrix: Water
Analysis Batch: 620181

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	ND		100	78.4		ug/L		78	68 - 124
cis-1,2-Dichloroethene	99	F1	100	249	F1	ug/L		149	74 - 124
cis-1,3-Dichloropropene	ND		100	102		ug/L		102	74 - 124
Cyclohexane	ND		100	76.3		ug/L		76	59 - 135
Dichlorodifluoromethane	ND		100	69.2		ug/L		69	59 - 135
Ethylbenzene	ND		100	104		ug/L		104	77 - 123
1,2-Dibromoethane	ND		100	107		ug/L		107	77 - 120
Isopropylbenzene	ND		100	93.3		ug/L		93	77 - 122
Methyl acetate	ND		200	200		ug/L		100	74 - 133
Methyl tert-butyl ether	ND		100	89.8		ug/L		90	77 - 120
Methylcyclohexane	ND		100	75.6		ug/L		76	68 - 134
Methylene Chloride	ND		100	86.8		ug/L		87	75 - 124
Styrene	ND		100	106		ug/L		106	80 - 120
Tetrachloroethene	ND		100	96.7		ug/L		97	74 - 122
Toluene	ND		100	98.6		ug/L		99	80 - 122
trans-1,2-Dichloroethene	ND		100	88.2		ug/L		88	73 - 127
trans-1,3-Dichloropropene	ND		100	106		ug/L		106	80 - 120
Trichloroethene	ND		100	104		ug/L		104	74 - 123
Trichlorofluoromethane	ND		100	88.4		ug/L		88	62 - 150
Vinyl chloride	5.3		100	88.2		ug/L		83	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*95*		*75 - 123*

Lab Sample ID: 480-196310-1 MSD
Matrix: Water
Analysis Batch: 620181

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		100	88.7		ug/L		89	73 - 126	6	15
1,1,2,2-Tetrachloroethane	ND		100	103		ug/L		103	76 - 120	0	15
1,1,2-Trichloroethane	ND		100	98.3		ug/L		98	76 - 122	6	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	74.7		ug/L		75	61 - 148	15	20
1,1-Dichloroethane	12		100	104		ug/L		92	77 - 120	6	20
1,1-Dichloroethene	ND		100	82.4		ug/L		82	66 - 127	10	16
1,2,4-Trichlorobenzene	ND		100	90.7		ug/L		91	79 - 122	5	20
1,2-Dibromo-3-Chloropropane	ND		100	101		ug/L		101	56 - 134	1	15
1,2-Dichlorobenzene	ND		100	93.9		ug/L		94	80 - 124	2	20
1,2-Dichloroethane	ND		100	96.6		ug/L		97	75 - 120	4	20
1,2-Dichloropropane	ND		100	93.8		ug/L		94	76 - 120	6	20
1,3-Dichlorobenzene	ND		100	97.0		ug/L		97	77 - 120	2	20
1,4-Dichlorobenzene	ND		100	98.5		ug/L		98	78 - 124	1	20
2-Butanone (MEK)	ND		500	535		ug/L		107	57 - 140	5	20
2-Hexanone	ND		500	558		ug/L		112	65 - 127	7	15
4-Methyl-2-pentanone (MIBK)	ND		500	522		ug/L		104	71 - 125	5	35

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

Lab Sample ID: 480-196310-1 MSD
Matrix: Water
Analysis Batch: 620181

Client Sample ID: INFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND		500	451		ug/L		90	56 - 142	3	15
Benzene	ND		100	91.7		ug/L		92	71 - 124	7	13
Bromodichloromethane	ND		100	99.2		ug/L		99	80 - 122	4	15
Bromoform	ND		100	89.8		ug/L		90	61 - 132	7	15
Bromomethane	ND		100	75.5		ug/L		75	55 - 144	3	15
Carbon disulfide	ND		100	76.5		ug/L		76	59 - 134	12	15
Carbon tetrachloride	ND		100	85.8		ug/L		86	72 - 134	4	15
Chlorobenzene	ND		100	96.8		ug/L		97	80 - 120	4	25
Dibromochloromethane	ND		100	97.8		ug/L		98	75 - 125	4	15
Chloroethane	ND		100	82.8		ug/L		83	69 - 136	4	15
Chloroform	ND		100	91.4		ug/L		91	73 - 127	4	20
Chloromethane	ND		100	75.3		ug/L		75	68 - 124	4	15
cis-1,2-Dichloroethene	99	F1	100	242	F1	ug/L		142	74 - 124	3	15
cis-1,3-Dichloropropene	ND		100	99.0		ug/L		99	74 - 124	3	15
Cyclohexane	ND		100	70.7		ug/L		71	59 - 135	8	20
Dichlorodifluoromethane	ND		100	64.4		ug/L		64	59 - 135	7	20
Ethylbenzene	ND		100	97.5		ug/L		97	77 - 123	6	15
1,2-Dibromoethane	ND		100	104		ug/L		104	77 - 120	3	15
Isopropylbenzene	ND		100	93.0		ug/L		93	77 - 122	0	20
Methyl acetate	ND		200	188		ug/L		94	74 - 133	6	20
Methyl tert-butyl ether	ND		100	86.3		ug/L		86	77 - 120	4	37
Methylcyclohexane	ND		100	71.2		ug/L		71	68 - 134	6	20
Methylene Chloride	ND		100	82.5		ug/L		83	75 - 124	5	15
Styrene	ND		100	104		ug/L		104	80 - 120	2	20
Tetrachloroethene	ND		100	91.0		ug/L		91	74 - 122	6	20
Toluene	ND		100	96.5		ug/L		97	80 - 122	2	15
trans-1,2-Dichloroethene	ND		100	82.4		ug/L		82	73 - 127	7	20
trans-1,3-Dichloropropene	ND		100	104		ug/L		104	80 - 120	2	15
Trichloroethene	ND		100	96.5		ug/L		97	74 - 123	8	16
Trichlorofluoromethane	ND		100	81.9		ug/L		82	62 - 150	8	20
Vinyl chloride	5.3		100	82.8		ug/L		78	65 - 133	6	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Dibromofluoromethane (Surr)	*93*		*75 - 123*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-620117/1-A
Matrix: Water
Analysis Batch: 620693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/01/22 15:29	04/06/22 19:39	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*38*		*15 - 110*	*04/01/22 15:29*	*04/06/22 19:39*	*1*

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: LCS 480-620117/2-A
Matrix: Water
Analysis Batch: 620693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620117

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			2.00	2.17		ug/L		109	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*34*		*15 - 110*

Lab Sample ID: LCSD 480-620117/3-A
Matrix: Water
Analysis Batch: 620693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620117

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			2.00	2.21		ug/L		110	40 - 140	2	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*35*		*15 - 110*

QC Association Summary

Client: Tetra Tech GEO
Job ID: 480-196310-1
Project/Site: GE Pompey, NY Investigation

GC/MS VOA

Analysis Batch: 620181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196310-1	INFLUENT	Total/NA	Water	8260C	
480-196310-2	POST COLUMN 1	Total/NA	Water	8260C	
480-196310-3	POST COLUMN 2	Total/NA	Water	8260C	
480-196310-4	EFFLUENT	Total/NA	Water	8260C	
480-196310-5	TRIP BLANK	Total/NA	Water	8260C	
MB 480-620181/6	Method Blank	Total/NA	Water	8260C	
LCS 480-620181/4	Lab Control Sample	Total/NA	Water	8260C	
480-196310-1 MS	INFLUENT	Total/NA	Water	8260C	
480-196310-1 MSD	INFLUENT	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 620117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196310-1	INFLUENT	Total/NA	Water	3510C	
480-196310-2	POST COLUMN 1	Total/NA	Water	3510C	
480-196310-3	POST COLUMN 2	Total/NA	Water	3510C	
480-196310-4	EFFLUENT	Total/NA	Water	3510C	
MB 480-620117/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-620117/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-620117/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 620693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196310-3	POST COLUMN 2	Total/NA	Water	8270D SIM ID	620117
480-196310-4	EFFLUENT	Total/NA	Water	8270D SIM ID	620117
MB 480-620117/1-A	Method Blank	Total/NA	Water	8270D SIM ID	620117
LCS 480-620117/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	620117
LCSD 480-620117/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	620117

Analysis Batch: 620823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196310-1	INFLUENT	Total/NA	Water	8270D SIM ID	620117
480-196310-2	POST COLUMN 1	Total/NA	Water	8270D SIM ID	620117

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 480-196310-1
Project/Site: GE Pompey, NY Investigation

Client Sample ID: INFLUENT
Lab Sample ID: 480-196310-1
Date Collected: 03/30/22 17:35
Matrix: Water
Date Received: 04/01/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	620181	04/02/22 18:27	CRL	TAL BUF
Total/NA	Prep	3510C			620117	04/01/22 15:29	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		5	620823	04/07/22 14:19	PJQ	TAL BUF

Client Sample ID: POST COLUMN 1
Lab Sample ID: 480-196310-2
Date Collected: 03/30/22 17:45
Matrix: Water
Date Received: 04/01/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	620181	04/02/22 18:50	CRL	TAL BUF
Total/NA	Prep	3510C			620117	04/01/22 16:00	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		5	620823	04/07/22 14:42	PJQ	TAL BUF

Client Sample ID: POST COLUMN 2
Lab Sample ID: 480-196310-3
Date Collected: 03/30/22 17:53
Matrix: Water
Date Received: 04/01/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	620181	04/02/22 19:13	CRL	TAL BUF
Total/NA	Prep	3510C			620117	04/01/22 15:29	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	620693	04/06/22 21:28	PJQ	TAL BUF

Client Sample ID: EFFLUENT
Lab Sample ID: 480-196310-4
Date Collected: 03/30/22 18:05
Matrix: Water
Date Received: 04/01/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	620181	04/02/22 19:38	CRL	TAL BUF
Total/NA	Prep	3510C			620117	04/01/22 15:29	CMC	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	620693	04/06/22 21:51	PJQ	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-196310-5
Date Collected: 03/30/22 00:00
Matrix: Water
Date Received: 04/01/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	620181	04/02/22 20:03	CRL	TAL BUF

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-196310-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-NY044	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,4-Dichlorobenzene
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Hexanone
8260C		Water	4-Methyl-2-pentanone (MIBK)
8260C		Water	Acetone
8260C		Water	Benzene
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Bromomethane
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Cyclohexane
8260C		Water	Dibromochloromethane
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethylbenzene
8260C		Water	Isopropylbenzene
8260C		Water	Methyl acetate
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylcyclohexane
8260C		Water	Methylene Chloride
8260C		Water	Styrene
8260C		Water	Tetrachloroethene
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene

Accreditation/Certification Summary

Client: Tetra Tech GEO
Job ID: 480-196310-1
Project/Site: GE Pompey, NY Investigation

Laboratory: Eurofins Buffalo (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride
8260C		Water	Xylenes, Total
8270D SIM ID	3510C	Water	1,4-Dioxane

Method Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey, NY Investigation

Job ID: 480-196310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-196310-1	INFLUENT	Water	03/30/22 17:35	04/01/22 08:00
480-196310-2	POST COLUMN 1	Water	03/30/22 17:45	04/01/22 08:00
480-196310-3	POST COLUMN 2	Water	03/30/22 17:53	04/01/22 08:00
480-196310-4	EFFLUENT	Water	03/30/22 18:05	04/01/22 08:00
480-196310-5	TRIP BLANK	Water	03/30/22 00:00	04/01/22 08:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Bailey Kudla-Williams	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-169454-36972.5
Client Contact: Ms. Bailey Kudla-Williams	Phone: 805-501-8053	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: Page ~~5 of 5~~ 1 of 1
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:			
City: Rochester	TAT Requested (days): Standard			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 805-501-8053(Tel)	PO #: 510875			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey, NY Investigation	Project #: 48023743			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
Influent	3/30/22	1735	G	Water			X	X	5	
Post Column 1	↓	1745	G	↓			X	X	5	
Post Column 2		1753	G				X	X	5	
Effluent		1905	G				X	X	5	
Trip Blank	—	—	—	water				X	1	

480-196310 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

	Date/Time	Company		Date/Time	Company
Relinquished by: Bailey Kudla-Williams	3/30/22 1856	TT	Received by: R English	3-30-22, 1852	Eyn
Relinquished by: R English	3-31-22, 1900	Eyn	Received by: Eyn	4-1-22 800	TTB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 22 ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 480-196310-1

Login Number: 196310

List Source: Eurofins Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TETRA TECH
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

APRIL 6, 2022 COMLPLETE ANALYTICAL RESULTS

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ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-196514-1
Client Project/Site: GE Pompey

For:
Tetra Tech GEO
175 N Corporate Drive
Suite 100
Brookfield, Wisconsin 53045

Attn: Michael Noel

Authorized for release by:
4/21/2022 1:41:11 PM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@et.eurofinsus.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@et.eurofinsus.com

Table of Contents

Sample Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-196514-1	INFLUENT	Water	04/06/22 10:02	04/07/22 10:00
480-196514-2	POST COLUMN 1	Water	04/06/22 12:57	04/07/22 10:00
480-196514-3	POST COLUMN 2	Water	04/06/22 13:10	04/07/22 10:00
480-196514-4	EFFLUENT	Water	04/06/22 13:16	04/07/22 10:00
480-196514-5	TRIP BLANK	Water	04/06/22 00:00	04/07/22 10:00

Method Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-196514-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-196514-1

Comments
No additional comments.

Receipt
The samples were received on 4/7/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.7º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: INFLUENT (480-196514-1). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-620950 recovered outside acceptance criteria, low biased, for trans-1,2-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte, the data are reported. The associated samples are impacted: INFLUENT (480-196514-1), POST COLUMN 1 (480-196514-2), POST COLUMN 2 (480-196514-3), EFFLUENT (480-196514-4) and TRIP BLANK (480-196514-5).

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

GC/MS Semi VOA
Method 8270D SIM ID: The following samples were diluted to bring the concentration of target analytes within the calibration range: INFLUENT (480-196514-1), POST COLUMN 1 (480-196514-2) and POST COLUMN 2 (480-196514-3). Elevated reporting limits (RLs) are provided.

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

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

Detection Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Client Sample ID: INFLUENT — Lab Sample ID: 480-196514-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	19		4.0	1.5	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	140		4.0	3.2	ug/L	4		8260C	Total/NA
Trichloroethene	4.0		4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	4.1		4.0	3.6	ug/L	4		8260C	Total/NA
1,4-Dioxane	67		2.0	1.0	ug/L	10		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 1 — Lab Sample ID: 480-196514-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	89		2.0	1.0	ug/L	10		8270D SIM ID	Total/NA

Client Sample ID: POST COLUMN 2 — Lab Sample ID: 480-196514-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	71		2.0	1.0	ug/L	10		8270D SIM ID	Total/NA

Client Sample ID: EFFLUENT — Lab Sample ID: 480-196514-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	15		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-196514-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Client Sample ID: INFLUENT
Date Collected: 04/06/22 10:02
Date Received: 04/07/22 10:00

Lab Sample ID: 480-196514-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			04/08/22 19:19	4
1,1-Dichloroethane	**19**		4.0	1.5	ug/L			04/08/22 19:19	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			04/08/22 19:19	4
Chloromethane	ND		4.0	1.4	ug/L			04/08/22 19:19	4
cis-1,2-Dichloroethene	**140**		4.0	3.2	ug/L			04/08/22 19:19	4
Ethylbenzene	ND		4.0	3.0	ug/L			04/08/22 19:19	4
m,p-Xylene	ND		8.0	2.6	ug/L			04/08/22 19:19	4
o-Xylene	ND		4.0	3.0	ug/L			04/08/22 19:19	4
Tetrachloroethene	ND		4.0	1.4	ug/L			04/08/22 19:19	4
Toluene	ND		4.0	2.0	ug/L			04/08/22 19:19	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			04/08/22 19:19	4
Trichloroethene	**4.0**		4.0	1.8	ug/L			04/08/22 19:19	4
Vinyl chloride	**4.1**		4.0	3.6	ug/L			04/08/22 19:19	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*04/08/22 19:19*	*4*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*04/08/22 19:19*	*4*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/08/22 19:19*	*4*
Dibromofluoromethane (Surr)	*92*		*75 - 123*		*04/08/22 19:19*	*4*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**67**		2.0	1.0	ug/L		04/08/22 14:44	04/12/22 11:02	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 110*	*04/08/22 14:44*	*04/12/22 11:02*	*10*

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Client Sample ID: POST COLUMN 1
Date Collected: 04/06/22 12:57
Date Received: 04/07/22 10:00

Lab Sample ID: 480-196514-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/08/22 19:41	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/08/22 19:41	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/08/22 19:41	1
Chloromethane	ND		1.0	0.35	ug/L			04/08/22 19:41	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/08/22 19:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/08/22 19:41	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/08/22 19:41	1
o-Xylene	ND		1.0	0.76	ug/L			04/08/22 19:41	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/08/22 19:41	1
Toluene	ND		1.0	0.51	ug/L			04/08/22 19:41	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/08/22 19:41	1
Trichloroethene	ND		1.0	0.46	ug/L			04/08/22 19:41	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/08/22 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*04/08/22 19:41*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*04/08/22 19:41*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/08/22 19:41*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*04/08/22 19:41*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	89		2.0	1.0	ug/L		04/08/22 14:44	04/12/22 11:24	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*04/08/22 14:44*	*04/12/22 11:24*	*10*

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Client Sample ID: POST COLUMN 2
Date Collected: 04/06/22 13:10
Date Received: 04/07/22 10:00

Lab Sample ID: 480-196514-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/08/22 20:04	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/08/22 20:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/08/22 20:04	1
Chloromethane	ND		1.0	0.35	ug/L			04/08/22 20:04	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/08/22 20:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/08/22 20:04	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/08/22 20:04	1
o-Xylene	ND		1.0	0.76	ug/L			04/08/22 20:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/08/22 20:04	1
Toluene	ND		1.0	0.51	ug/L			04/08/22 20:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/08/22 20:04	1
Trichloroethene	ND		1.0	0.46	ug/L			04/08/22 20:04	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/08/22 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*04/08/22 20:04*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*04/08/22 20:04*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/08/22 20:04*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 123*		*04/08/22 20:04*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	71		2.0	1.0	ug/L		04/08/22 14:44	04/12/22 11:46	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*04/08/22 14:44*	*04/12/22 11:46*	*10*

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Client Sample ID: EFFLUENT
Date Collected: 04/06/22 13:16
Date Received: 04/07/22 10:00

Lab Sample ID: 480-196514-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/08/22 20:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/08/22 20:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/08/22 20:27	1
Chloromethane	ND		1.0	0.35	ug/L			04/08/22 20:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/08/22 20:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/08/22 20:27	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/08/22 20:27	1
o-Xylene	ND		1.0	0.76	ug/L			04/08/22 20:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/08/22 20:27	1
Toluene	ND		1.0	0.51	ug/L			04/08/22 20:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/08/22 20:27	1
Trichloroethene	ND		1.0	0.46	ug/L			04/08/22 20:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/08/22 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*04/08/22 20:27*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*04/08/22 20:27*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/08/22 20:27*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*04/08/22 20:27*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**15**		0.20	0.10	ug/L		04/08/22 14:44	04/11/22 13:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*04/08/22 14:44*	*04/11/22 13:54*	*1*

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Client Sample ID: TRIP BLANK
Date Collected: 04/06/22 00:00
Date Received: 04/07/22 10:00

Lab Sample ID: 480-196514-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/08/22 20:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/08/22 20:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/08/22 20:50	1
Chloromethane	ND		1.0	0.35	ug/L			04/08/22 20:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/08/22 20:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/08/22 20:50	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/08/22 20:50	1
o-Xylene	ND		1.0	0.76	ug/L			04/08/22 20:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/08/22 20:50	1
Toluene	ND		1.0	0.51	ug/L			04/08/22 20:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/08/22 20:50	1
Trichloroethene	ND		1.0	0.46	ug/L			04/08/22 20:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/08/22 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/08/22 20:50*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/08/22 20:50*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/08/22 20:50*	*1*
Dibromofluoromethane (Surr)	*90*		*75 - 123*		*04/08/22 20:50*	*1*

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-196514-1	INFLUENT	107	97	97	92
480-196514-2	POST COLUMN 1	111	97	99	94
480-196514-3	POST COLUMN 2	107	97	96	93
480-196514-4	EFFLUENT	109	95	99	96
480-196514-5	TRIP BLANK	104	99	97	90
LCS 480-620950/5	Lab Control Sample	105	100	99	91
MB 480-620950/7	Method Blank	104	99	98	93

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Lab Sample ID: MB 480-620950/7
Matrix: Water
Analysis Batch: 620950

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/08/22 12:51	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/08/22 12:51	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/08/22 12:51	1
Chloromethane	ND		1.0	0.35	ug/L			04/08/22 12:51	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/08/22 12:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/08/22 12:51	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/08/22 12:51	1
o-Xylene	ND		1.0	0.76	ug/L			04/08/22 12:51	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/08/22 12:51	1
Toluene	ND		1.0	0.51	ug/L			04/08/22 12:51	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/08/22 12:51	1
Trichloroethene	ND		1.0	0.46	ug/L			04/08/22 12:51	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/08/22 12:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/08/22 12:51*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/08/22 12:51*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/08/22 12:51*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 123*		*04/08/22 12:51*	*1*

Lab Sample ID: LCS 480-620950/5
Matrix: Water
Analysis Batch: 620950

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1-Trichloroethane			25.0	20.9		ug/L		84	73 - 126		
1,1-Dichloroethane			25.0	21.7		ug/L		87	77 - 120		
1,1-Dichloroethene			25.0	20.2		ug/L		81	66 - 127		
Chloromethane			25.0	20.9		ug/L		83	68 - 124		
Ethylbenzene			25.0	26.2		ug/L		105	77 - 123		
Tetrachloroethene			25.0	23.4		ug/L		94	74 - 122		
Toluene			25.0	24.6		ug/L		99	80 - 122		
trans-1,2-Dichloroethene			25.0	19.3		ug/L		77	73 - 127		
Trichloroethene			25.0	23.3		ug/L		93	74 - 123		
Vinyl chloride			25.0	20.5		ug/L		82	65 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*75 - 123*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-621020/1-A
Matrix: Water
Analysis Batch: 621161

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621020

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/08/22 14:44	04/11/22 10:57	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*15 - 110*	*04/08/22 14:44*	*04/11/22 10:57*	*1*

Lab Sample ID: LCS 480-621020/2-A
Matrix: Water
Analysis Batch: 621161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621020

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			2.00	2.19		ug/L		109	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*37*		*15 - 110*

Lab Sample ID: LCSD 480-621020/3-A
Matrix: Water
Analysis Batch: 621161

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621020

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			2.00	2.23		ug/L		112	40 - 140	2	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*40*		*15 - 110*

QC Association Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

GC/MS VOA

Analysis Batch: 620950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196514-1	INFLUENT	Total/NA	Water	8260C	
480-196514-2	POST COLUMN 1	Total/NA	Water	8260C	
480-196514-3	POST COLUMN 2	Total/NA	Water	8260C	
480-196514-4	EFFLUENT	Total/NA	Water	8260C	
480-196514-5	TRIP BLANK	Total/NA	Water	8260C	
MB 480-620950/7	Method Blank	Total/NA	Water	8260C	
LCS 480-620950/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 621020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196514-1	INFLUENT	Total/NA	Water	3510C	
480-196514-2	POST COLUMN 1	Total/NA	Water	3510C	
480-196514-3	POST COLUMN 2	Total/NA	Water	3510C	
480-196514-4	EFFLUENT	Total/NA	Water	3510C	
MB 480-621020/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-621020/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-621020/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 621161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196514-4	EFFLUENT	Total/NA	Water	8270D SIM ID	621020
MB 480-621020/1-A	Method Blank	Total/NA	Water	8270D SIM ID	621020
LCS 480-621020/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	621020
LCSD 480-621020/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	621020

Analysis Batch: 621325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196514-1	INFLUENT	Total/NA	Water	8270D SIM ID	621020
480-196514-2	POST COLUMN 1	Total/NA	Water	8270D SIM ID	621020
480-196514-3	POST COLUMN 2	Total/NA	Water	8270D SIM ID	621020

Accreditation/Certification Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Syracuse #225

Client Information	Sampler: Jon Wolff-Schreiber	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-172378-37315.1
Client Contact: Ms. Bailey Kudla-Williams	Phone: 646-248-3523	E-Mail: Brian.Fischer@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Tetra Tech GEO	PWSID:			Job #:
Address: 3136 South Winton Road Suite 303	Due Date Requested:	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric, M - Hexane, N - None
City: Rochester	TAT Requested (days):			
State, Zip: NY, 14623	Compliance Project: Δ Yes Δ No			
Phone: 262-792-1282(Tel)	PO #: 117.2204205.01			
Email: bailey.kudlawilliams@tetratech.com	WO #:			
Project Name: GE Pompey - method 522	Project #: 48002897			
Site: New York	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	522_PREC_1,4-Dioxane_SIM	8270D_SIM_MS_ID-1,4-Dioxane	8260C - TCL 1ST OLM04.2	Total Number of	Special Instructions/Note:
			Preservation Code:								
Influent	04/06/22	10:02	G	Water				X	X	5	
Post Column 1		12:57		Water				X	X	5	
Post Column 2		13:10		Water				X	X	5	
Effluent		13:16		Water				X	X	5	
Trip Blank	-	-	-	Water				X	X	2	
				Water							
				Water							

4-6-22

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 04/06/22, 17:40	Company	Received by:	Date/Time: 4-6-22, 17:40	Company
Relinquished by: RELINQUISHED	Date/Time: 4-6-22, 1900	Company	Received by:	Date/Time: 4/7/22 1000	Company
Relinquished by	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7 #1 ICE

Ver: 06/08/2021

480-196514 Chain of Custody

Isotope Dilution Summary

Client: Tetra Tech GEO
Project/Site: GE Pompey

Job ID: 480-196514-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		DXE						
Lab Sample ID	Client Sample ID	(15-110)						
480-196514-1	INFLUENT	35						
480-196514-2	POST COLUMN 1	31						
480-196514-3	POST COLUMN 2	34						
480-196514-4	EFFLUENT	31						
LCS 480-621020/2-A	Lab Control Sample	37						
LCSD 480-621020/3-A	Lab Control Sample Dup	40						
MB 480-621020/1-A	Method Blank	37						

Surrogate Legend

DXE = 1,4-Dioxane-d8