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January 29, 2020

George Momberger, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway,
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(*electronic copy via email*)

Lynn M. Winterberger, P.E.
Chief, RCRA Permitting Section
New York State Department of Environmental Conservation
625 Broadway,
Albany, NY 12233-7256
(*electronic copy via email*)

Re: Maintenance and Monitoring Report
GE Global Research Center
River Road, Niskayuna, New York
NYSDEC Site Number: 447013A
USEPA ID Number: NYD071094197

Dear Mr. Momberger and Ms. Winterberger:

Enclosed please find a Maintenance and Monitoring Report prepared by Arcadis of New York, Inc. on behalf of the General Electric Company. This report summarizes the monitoring activities completed in 2019, in accordance with the June 2016 Site Maintenance and Monitoring Work Plan.

If you have any questions regarding this report, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Lewis S. Streeter'.

Lewis S. Streeter
Senior Project Manager

cc: Paul Guilmette, GE GRC, (*electronic copy*)
 Doug Weeks, Arcadis, (*electronic copy*)

General Electric Company

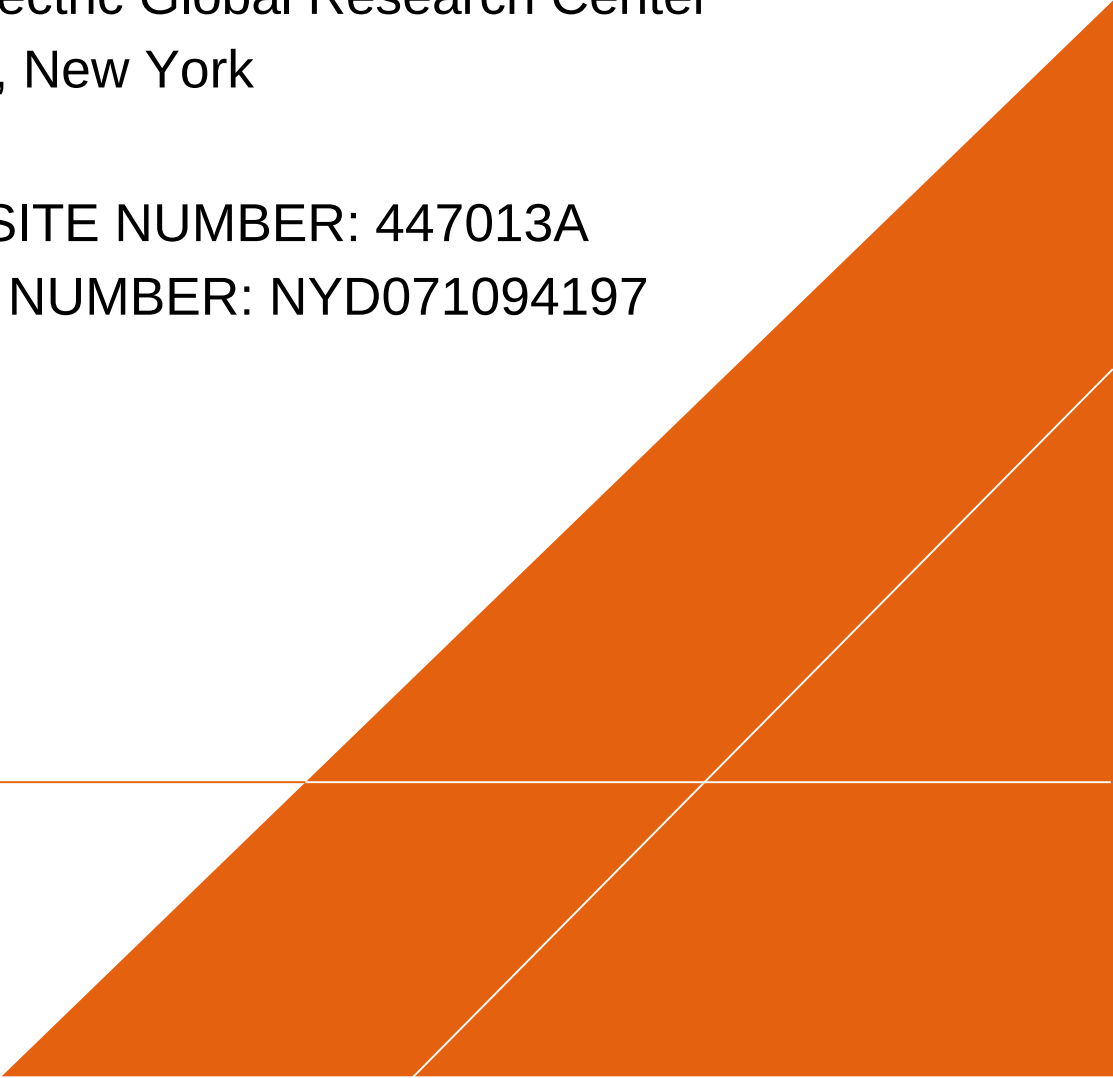
2019 SITE MAINTENANCE AND MONITORING REPORT

General Electric Global Research Center
Niskayuna, New York

NYSDEC SITE NUMBER: 447013A

USEPA ID NUMBER: NYD071094197

January 29, 2020

A large, solid orange geometric shape, resembling a stylized triangle or a section of a larger triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangles, creating a complex, angular form that extends from the bottom edge towards the top right corner.

2019 SITE MAINTENANCE AND MONITORING REPORT

Prepared for:

General Electric Company
Global Research Center
River Road
Niskayuna, New York

Prepared by:

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30006150 (formerly AP015012.4000)

Date:

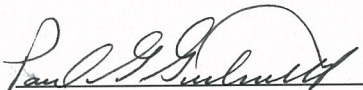
January 29, 2020

CERTIFICATION OF INSPECTION

In accordance with Appendix III-E of the Resource Conservation and Recovery Act Part 373 Permit for the General Electric Global Research Center, Program Identification Number NYD071094197, New York State Department of Environmental Conservation (NYSDEC) Permit Number 4-4224-00001/00038-0:

I certify that the cap of the inactive landfill, Solid Waste Management Unit (SWMU) 16, at the General Electric Global Research Center, in Schenectady County, Niskayuna, New York, was inspected on November 21, 2019, and that the overall condition of the cap was good. No significant desiccation, cracking, erosion, or other problems with integrity were observed during the inspection.

Certification by Owner/Operator



Signature of Owner/Operator

Paul Guilmette

Name (typed or handwritten)

Environmental Program Leader

Title

Certification by Independent Professional Engineer

Signature of Professional Engineer
Registration Number: 067963
State: New York

James M. Nuss

Printed Name of Professional Engineer



Date: 01-21-2020

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1 INTRODUCTION

Arcadis of New York, Inc. (Arcadis) has prepared this 2019 Site Maintenance and Monitoring Report on behalf of the General Electric Company (GE) to describe groundwater monitoring and landfill inspection activities performed in 2019 at GE's Global Research Center located on River Road in Niskayuna, New York (the site). Arcadis performed groundwater monitoring during the 2019 calendar year at the request of the New York State Department of Environmental Conservation (NYSDEC) in response to the *Final Statement of Basis Corrective Measures Selection, General Electric Global Research Center, Niskayuna, New York, USEPA ID No. NYD071094197, March 2015* (NYSDEC 2015) and to satisfy specific requirements in the site's *2012–2022 Hazardous Waste Management Permit, NYSDEC No. 4-4224-00001/00100, General Electric Global Research Center at Niskayuna, USEPA ID No. NYD071094197, Town of Niskayuna, Schenectady County (Permit)* (NYSDEC 2012).

This monitoring was completed in accordance with the June 2016 *Site Maintenance and Monitoring Work Plan* (CB&I 2016). The work plan combined the sampling programs for Solid Waste Management Units (SWMUs) 5, 16, and 24 into a single groundwater monitoring program. Data obtained prior to implementation of the new sampling program are available in the individual reports submitted to NYSDEC by Chester Engineers.

1.1 Site Background

The GE Corporate Research and Development Center encompasses 525 acres and was created in 1965 by the merger of the GE Research Laboratory and the GE Advanced Technology Laboratories. The name of the facility was changed to the Global Research Center in 2002. GE's property is located on the southern bank of the Mohawk River, north of the intersection of Van Antwerp Road and River Road in the Town of Niskayuna, New York. The property is bounded on the north by the Mohawk River, on the east by Knolls Atomic Power Laboratory, and on the west and south by residential and undeveloped properties.

Activities on the property began in the 1950s. Buildings at the Global Research Center have a total of 1.25 million square feet of floor space including offices, laboratories, and support facilities. The Global Research Center is comprised of 13 laboratories conducting research in various fields such as ceramics, metallurgy, electronics, environment, and organic and inorganic chemistry.

On March 31, 1994, the NYSDEC issued the above-noted Part 373 Permit to GE which allowed GE to temporarily store hazardous wastes at the facility. All Part 373 permits include requirements for corrective action that require owners and/or operators of hazardous waste storage facilities to perform a Resource Conservation and Recovery Act (RCRA) Facility Assessment, RCRA Facility Investigation (RFI), and corrective measures to investigate and, when appropriate, remediate releases of hazardous wastes and/or their constituents. As part of the RCRA Facility Assessment, several SWMUs and Areas of Concern were identified within the property. This report provides groundwater monitoring and site maintenance information related to three of the SWMUs (SWMUs 5, 16, and 24) located in the northern portion of the property as shown in **Figure 1** and discussed below.

SWMU 5 – Environmental Control Facility (ECF) – Old Farm Area

GE used this approximate 0.5-acre area between 1949 and 1987 to store laboratory chemicals prior to final disposition via either off-site disposal, on-site incineration, or placement in the on-site landfill. According to the Permit, GE must monitor groundwater conditions and perform an RFI upon closure of this unit. Monitoring wells MW-4, MW-5, and MW-7 are located downgradient from this unit and monitoring well THM-12 is located upgradient from this unit (**Figure 2**).

SWMU 16 – Inactive Landfill

GE used this approximate 0.3-acre area as a landfill that received waste materials that could not be burned in the chemical waste incinerator (including shock sensitive materials and metals), ash, bottles, and other small containers. In 1978, 280 test borings were drilled to establish the limits of the former landfill. Groundwater monitoring wells were installed around the landfill area in 1979. An upgradient stormwater diversion trench and bentonite clay cap were installed at the former landfill in 1981 to minimize rainwater infiltration. Between 1978 and 1981, several of the on-site monitoring wells, including those installed within the fill area, were decommissioned, relocated, or reinstalled for various reasons. The monitoring well network used to monitor groundwater conditions upgradient and downgradient of SWMU 16 consists of monitoring wells THM-12, MW-1, MW-2, and MW-3 (**Figure 2**).

SWMU 24 – Former Chemical Waste Incinerator

GE used this approximate 0.1-acre area for the operation of a chemical waste incinerator from 1957 to 1980 for open pit burning of chemical wastes using acetone as a fuel source. The pit was excavated in 1984 to remove debris and 750 tons of contaminated soil that were disposed off-site as hazardous waste. GE monitors groundwater conditions both upgradient (THM-12) and downgradient (MW-4 and MW-5) of this SWMU annually, as required by the Permit for the Site (**Figure 2**).

1.2 Site Topography and Surface Hydrology

Elevation at the Site ranges from 250 feet to 400 feet above mean sea level. The topography of the site slopes gently toward the Mohawk River in the southern portion of the property, becoming steeper to the north. This slope terminates on a relatively flat river terrace creating two distinct levels to the site.

1.3 Soils and Sediments

The material deposited in the area of the property consists of glacial till containing a high percentage of clay and fluvioglacial deposits of gravel, sand, and clay. The soils on the property are identified as lacustrine silt and clay, and till (Cadwell and Dineen 1987). These units are described as follows:

- **Lacustrine silt and clay:** Silt and clay deposited as bottom sediment in proglacial lakes. Generally composed of calcareous, thinly bedded silt but can be massive. Variable thickness ranging up to 300 feet. Relative permeability very low.
- **Till (Ground Moraine):** Ice-contact, unsorted, unstratified mixture of clay, silt, sand, gravel, and boulders deposited beneath advancing glacial ice. Relatively impermeable with moderate to large clay content. Thickness variable (up to 150 feet) but generally less than 20 feet on upland hills. Generally yields adequate amount of water for domestic use to large-diameter dug wells.

1.4 Geology

Underlying the unconsolidated material is Ordovician age shale bedrock with minor amounts of sandstone and siltstone, known locally as the Schenectady Formation. The alteration of beds of shale and sandstone seems to follow a definite pattern or cycle comprising a bed of shale in the upper part, of which thin layers of sandstone appear, giving way gradually to sandstone in an upward direction until sandstone is the dominating stratigraphic unit. Carbonate material is present in the layers of shale and sandstone. The Schenectady Formation in the vicinity of the site is flat-lying (dipping generally less than one degree) gray to black shale which is competent at depth but which has a weathered fracture zone near the surface (Halberg et al. 1964).

1.5 Hydrogeology

Based on regional data (Halberg et al., 1964), the Schenectady Formation is a low-producing bedrock aquifer with yields of 0 to 12 gallons per minute (gpm). The median yield from 37 wells (ranging in depth from 175 feet to 209 feet) was 2 gpm, with the best yields from wells completed at depths of about 175 feet. The water obtained from this aquifer is highly mineralized (Arnow 1949).

Monitoring wells in the northern portion of the site, predating the 2002 RFI Report, have groundwater depths ranging from 5 to 15 feet below ground surface. The Schenectady Formation has relatively low hydraulic conductivity across this area of the Site, as indicated by the slow recharge rates of the wells in this area in response to purging. Groundwater flow is northeast across the property to the Mohawk River. There are no domestic or municipal drinking water wells between the facility and the Mohawk River (NYSDEC 1994).

2 WORK SCOPE

GE met with the NYSDEC on August 21, 2015 to discuss the objectives of the site monitoring program. From that discussion, the NYSDEC's goals for the monitoring program are to collect appropriate groundwater quality data upgradient and downgradient of SWMUs 5, 16, and 24 to confirm that potential constituents of concern (COCs) are not migrating from these regulatory units, and to ensure the integrity of the SWMU 16 cap such that it remains protective as discussed in the Statement of Basis and the Permit. The following tasks were completed in 2019 to meet these goals:

May 2019 Groundwater Gauging Event:

- Groundwater level gauging of monitoring wells THM-12, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7.
- Collection of static groundwater field parameters (i.e., specific conductivity, pH, temperature, oxidation reduction potential, and dissolved oxygen) in monitoring wells THM-12, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7.

November 2019 Groundwater Sampling Event:

- Groundwater level gauging of monitoring wells THM-12, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7.

- Purging, collection of groundwater field parameters (i.e., specific conductivity, pH, temperature, oxidation reduction potential, and dissolved oxygen), and sampling of monitoring wells THM-12, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7, including collection of appropriate quality assurance/quality control (QA/QC) samples (blind duplicate, matrix spike, and matrix spike duplicate).
- Inspection of the inactive landfill (SWMU 16).

The results of these work tasks are more fully described in the following sections.

2.1 Groundwater Monitoring

Water levels were measured in site monitoring wells on May 21, 2019 and November 20, 2019 using an oil-water interface probe.

Groundwater sampling was performed on November 20 and 21, 2019 according to the following procedures:

- The monitoring well cap or flush-mounted lid was unlocked and removed.
- Photoionization detector readings were obtained at the wellhead and recorded in the field logbook.
- The static water level in the well was measured with an oil-water interface probe. The probe was washed with Alconox detergent and water, then triple rinsed with deionized water between individual wells to reduce the potential for cross-contamination.
- The volume of water in the well was calculated and documented on the field sampling forms.
- Each of the wells was purged of at least three well volumes, or until the well went dry, using a dedicated, disposable polyethylene bailer. If the well was purged dry, it was allowed to recharge sufficiently before being sampled.
- Field parameters (i.e., pH, dissolved oxygen, specific conductivity, temperature, and oxidation reduction potential) were collected directly after measuring the water level and then after every one to two additional gallons were purged from the well (interval varied depending on total purge volume required). Purging was considered “complete” once the following conditions were met:
 - Consecutive pH readings were ± 0.2 pH units of each other
 - Consecutive water temperatures were ± 0.5 degrees Celsius ($^{\circ}\text{C}$) of each other
 - Consecutive measured specific conductance was ± 10 percent of each other
- Samples were obtained from each well using a dedicated disposable polyethylene bailer suspended on clean nylon twine.
- Samples were poured directly into the appropriate sample bottles, obtained from ALS Environmental Laboratories (ALS) in Rochester, New York.
- Samples were placed directly on ice in a cooler and chilled to at least 4°C . Sample sheet, custody seals, and pertinent chain-of-custody forms were completed. Samples were hand delivered to the ALS Albany Service Center within 24 hours of collection.
- The polyethylene bailers and twine were left down-well for use during future sampling.

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- Well caps or lids were replaced on the monitoring wells and the location was re-locked or bolted down, as applicable. Four of the seven monitoring wells are stick up wells and have locks on the well cap, the remaining three monitoring wells are flush-mount wells and are bolted down.

All groundwater samples, including QA/QC samples, were analyzed for the following parameters:

- Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (USEPA) SW-846 Method 8260C.
- Total recoverable phenolics by USEPA SW-846 Method 9066.
- Dissolved barium by USEPA Method 6010C.
- Chloride by USEPA Method 9056A.
- Total dissolved solids (TDS) by USEPA Method SM 2540 C-1997(2011).
- Total organic carbon (TOC) by USEPA Method SM 5310 C-2000(2011).

A laboratory-prepared trip blank was transported with the sample coolers to and from the laboratory. Laboratory trip blanks accompanied the sample containers for VOC analyses and were analyzed for VOCs via SW-846 Method 8260C.

Purge water was placed in containers provided by GE for disposal at the on-site wastewater treatment plant located within the ECF.

2.2 Landfill Inspection

Inspection of the inactive landfill (SWMU 16) was completed at the same time as the November 2019 groundwater sampling event. The presence and integrity of access restrictions (fence with locking access gate) were confirmed. The overall condition of the landfill cap was assessed for desiccation, cracking, erosion, and any other integrity issues. Visual observations were noted on the landfill inspection form and photographs of the landfill and access restrictions were taken as discussed in Section 3.3. Prior inspection reports and photos were reviewed to confirm no significant change in the condition of the landfill and access restrictions from previous inspections. The 2019 inspection form and photo log are included in **Appendix D** and **Appendix E**, respectively.

3 RESULTS

The required site monitoring events were completed on May 21, 2019 and November 20 and 21, 2019. In addition, a well maintenance event was performed on May 31, 2019 to address some minor deficiencies noted during the May 21, 2019 monitoring event. Repairs included replacing the bolts securing the well cover to the protective outer casing at monitoring well MW-3. In addition, the well cover at MW-2 was found to be chipped and was therefore replaced. Finally, woody vegetation in the vicinity of MW-2 and MW-3 prevented easy access to both locations and was trimmed back by GE personnel. No additional well maintenance needs were noted during the November 20, 2019 monitoring event and the repairs made on May 31, 2019 were observed to have addressed the previously noted deficiencies.

3.1 Groundwater Field Parameters

3.1.1 May 2019

A groundwater gauging event was completed at the site on May 21, 2019. During this event, water levels were measured in monitoring wells THM-12, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7 with an oil-water interface probe and static groundwater quality parameters (temperature, specific conductivity, pH, dissolved oxygen, and oxygen reduction potential) were collected. The field sampling data sheets from this event are included in **Appendix A**. Water level data and groundwater quality parameters are presented in **Table 1**. A groundwater contour map created using the data collected during this visit is presented as **Figure 3**. The local groundwater flow direction was determined to be to the east and northeast toward the Mohawk River, consistent with results from previous gauging events.

3.1.2 November 2019

A groundwater sampling event was completed on November 20 and 21, 2019. During this event, monitoring wells THM-12, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7 were gauged, purged, and sampled following the procedures detailed in Section 2.1. The field sampling data sheets from this event are included in **Appendix B**. Groundwater samples were hand delivered to the ALS Service Center in Albany, NY. The laboratory reported receiving these samples the following day in good condition.

The November 20 and 21, 2019 water level data and groundwater quality parameters are presented in **Table 2**. A groundwater contour map created using the data collected during this sampling event is presented as **Figure 4**. The local groundwater flow direction was determined to be to the east and northeast toward the Mohawk River, consistent with results from previous gauging events. **Table 3** presents a summary of the historic groundwater elevations for the monitoring well network.

3.2 Analytical Results – November 2019

The analytical results for the November 2019 annual groundwater sampling event are summarized in **Table 4** and **Table 5**. A copy of the complete laboratory analytical report is provided in **Appendix C** and the data will be provided to NYSDEC electronically using the EQulS database.

3.2.1 Volatile Organic Compounds

The 2019 groundwater analytical data for VOCs were compared to the New York State Ground Water Quality Standards (NYSGWQS), as defined in the Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1; NYSDEC 1998).

VOCs were not detected during the 2019 sampling event at monitoring wells MW-3, MW-7, and THM-12, which is consistent with the low and non-detect VOC results observed at these wells during previous sampling events.

Trichloroethene (TCE) was detected above the NYSGWQS in monitoring well MW-4 at a concentration of 7.2 micrograms per liter (µg/L), which is slightly above the NYSGWQS for TCE of 5 µg/L.

Cis-1,2-Dichloroethene (cis-1,2-DCE) was detected in monitoring well MW-4 at a concentration of 8.4 µg/L, which is slightly above the NYSGWQS for cis-1,2-DCE of 5 µg/L.

A blind duplicate was collected at monitoring well MW-4; TCE and cis-1,2-DCE were detected at similar concentrations to MW-4 and above the NYSGWQS.

Benzene was detected in monitoring well MW-2 at a concentration of 2.0 µg/L, which is slightly above the NYSGWQS for Benzene of 1.0 µg/L.

1,2-Dichloroethane was detected in monitoring well MW-2 at a concentration of 1.2 µg/L, which is slightly above the NYSGWQS for 1,2-Dichloroethane of 0.6 µg/L.

All other VOC detections were below the NYSGWQS.

No VOCs were detected above the laboratory method detection limits in the trip blanks. The absence of these COCs in the trip blanks indicates the groundwater samples were not negatively influenced during transit.

3.2.2 General Chemistry and Inorganics

Groundwater from each of the monitoring wells was analyzed for TOC, chloride, phenolics, TDS, and dissolved barium. Analytical results were compared to the NYSGWQS. A blind duplicate sample was collected at monitoring well MW-4; results from the duplicate are included below in brackets.

Chloride was detected in six of the seven monitoring wells (all wells except THM-12), and the concentration exceeded the NYSGWQS of 250 mg/L in four of the six wells. Specifically, it was detected in MW-1 at a concentration of 84.5 mg/L, in MW-2 at 428 mg/L, in MW-3 at 14.4 mg/L, in MW-4 at 569 [579] mg/L, in MW-5 at 2,180 mg/L, and in MW-7 at 1,220 mg/L.

Total dissolved solids (TDS) were detected in all seven monitoring wells and the concentration exceeded the NYSGWQS of 1,000mg/L in three of the seven wells. Specifically, TDS was detected in MW-1 at a concentration of 445 mg/L, in MW-2 at 984 mg/L, in MW-3 at 546 mg/L, in MW-4 at 1,150 [1,170] mg/L, in MW-5 at 3,930 mg/L, in MW-7 at 2,340 mg/L, and in THM-12 at 405 mg/L.

Dissolved barium was detected in all seven monitoring wells and the concentration exceeded the NYSGWQS of 1000 µg/L in one of the seven wells. Specifically, it was detected in MW-1 at a concentration of 56.9 µg/L, in MW-2 at 3,660 µg/L, in MW-3 at 189 µg/L, in MW-4 at 66.9 [67.4] µg/L, in MW-5 at 311 µg/L, in MW-7 at 237 µg/L, and in THM-12 at 108 µg/L.

Total phenolics were detected in monitoring well MW-7 at a concentration of 0.0027 mg/L, which exceeds the NYSGWQS of 0.001 mg/L. Total phenolics were not detected in any of the other site monitoring wells.

3.3 Landfill Inspection

The inactive landfill (SWMU 16) was inspected on November 21, 2019. The vegetated landfill cap, its surface water diversion ditches, and the security fencing were inspected for signs of erosion, stressed or unkempt vegetation, and opportunities for unauthorized access. The completed Landfill Inspection Form is included as **Appendix D**. Photographs of the landfill cap, diversion ditches, and security fence are included in **Appendix E**. **Figure 5** shows the locations at which the photographs were taken, and the direction facing.

The vegetative cover on the landfill cap appeared in good condition and well maintained. There were no signs of water collection or erosion and the overall condition of the landfill cap was good.

The rock-lined surface water diversion/interceptor ditch located along the west side of the landfill leads to a second diversion ditch located along the north side of the landfill. Both diversion/interceptor ditches were in good condition.

There were no noticeable issues with security and gate access to the landfill and ECF area. The gate was in good condition and could be closed and locked to restrict access to the ECF and landfill areas. Signage on the gated entrance included clearly visible warnings of polychlorinated biphenyls, a danger sign, and a placard with emergency contact information.

The security fence located along the north, south, and east sides of the landfill was in good condition. Several of the fence posts along the western fenceline were leaning in toward the landfill, and one post was observed to be detached from the fence. Additionally, the posts were heaving in some areas, and the concrete bases for two of the posts are above grade. A review of last year's report indicates that the overall condition of the western fence line has not changed significantly from the last year. These minor fence integrity issues will continue to be monitored but presently do not affect the ability of the fence to function as intended.

4 SUMMARY AND CONCLUSIONS

The historical analytical data for VOCs, inorganics, and general chemistry are presented in **Table 6** and **Table 7**. Data obtained during the November 2019 sampling event are generally consistent with historical trends for the site, showing VOC concentrations have generally decreased with respect to previous sampling events.

Although some minor deficiencies were noted for the fence along the west side of the inactive landfill, it continues to prevent unauthorized access. This section of fence will continue to be evaluated to determine if future repairs are warranted. The south border fence, east border fence, north border fence, north border gabion retaining wall, and the upper and lower drainage ditches are all in good condition.

The monitoring program remains effective in monitoring the groundwater quality at the site. GE will continue to conduct semiannual (May and November) groundwater monitoring events to monitor site conditions. The next monitoring event will be a groundwater gauging event, planned for May 2020.

5 REFERENCES

- Arnow, T. 1949. The Groundwater Resources of Albany County, New York: Department of Conservation, Water Power and Control Commission, U.S. Department of the Interior, Bulletin GW-20, 56 p.
- Cadwell, D. and R. Dineen. 1987. Surficial geologic map of New York, Hudson-Mohawk: New York State Museum, Geological Survey, Map and Chart Series No. 40, scale 1:250,000, 1 sheet.
- CB&I. 2016. *Site Maintenance and Monitoring Work Plan*. June.
- Halberg, H.N., O.P. Hunt, and F.H. Pauszek. 1964. Water Resources of the Albany-Schenectady-Troy Area, New York: U.S. Geological Survey Water Supply Paper 1499-D.
- NYSDEC. 1994. revised 4/95, RCRA Facility Assessment Preliminary Review, GE Corporate Research and Development Facility, Niskayuna, New York. March 23.

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NYSDEC. 2012. *2012-2022 Hazardous Waste Management Permit*, General Electric Global Research Center, Niskayuna, NY, NYSDEC No. 4-4224-00001/00100.

NYSDEC. 2015. *Final Statement of Basis Corrective Measures Selection*, General Electric Global Research Center, Niskayuna, NY, USEPA ID No, NYD071094197. March.

TABLES



Table 1
May 2019 Groundwater Elevations and Field Groundwater Quality Parameters
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Well ID	THM-12	MW-1	MW-2	MW-3	MW-4	MW-5	MW-7
Date	5/21/2019	5/21/2019	5/21/2019	5/21/2019	5/21/2019	5/21/2019	5/21/2019
Top of Casing (feet)	331.45	276.39	275.77	276.02	273.46	273.61	274.85
Depth to Water (feet)	6.56	7.44	7.86	17.76	4.15	5.23	7.06
Depth to Bottom (feet)	54.98	19.76	19.88	19.88	22.32	43.45	25.10
Groundwater Elevation (feet)	324.89	268.95	267.91	258.26	269.31	268.38	267.79
Specific Conductivity (mS/cm)	0.641	0.638	1.220	0.864	1.720	4.010	4.930
pH (SU)	7.42	7.34	7.41	7.01	7.34	7.15	6.80
Temperature (°C)	12.69	11.63	10.79	12.05	13.57	12.32	12.75
ORP (mV)	84.0	3.0	-84.0	170.0	41.0	47.0	122.0
Dissolved Oxygen (mg/L)	12.22	11.68	2.79	6.83	11.75	12.12	11.69

Notes:

All measurements recorded in feet.

mg/L - Milligrams per liter.

SU - Standard units.

mS/cm - Micro siemens per centimeter.

°C - Degrees Celsius.

mV - Milivolts.

NTU - Nephelometric turbidity units.

ORP - Oxidation reduction potential.

Table 2
November 2019 Groundwater Elevations and Field Groundwater Quality Parameters
2019 Site Monitoring and Maintenance Report
General Electric Global Reserch Center
Niskayuna, New York

Pre-Purge Readings

Well ID	THM-12	MW-1	MW-2	MW-3	MW-4	MW-5	MW-7
Date	11/20/2019	11/20/2019	11/20/2019	11/20/2019	11/20/2019	11/20/2019	11/20/2019
Top of Casing (feet)	331.45	276.39	275.77	276.02	273.46	273.61	274.85
Depth to Water (feet)	6.96	7.42	8.11	15.84	3.86	5.25	7.26
Depth to Bottom (feet)	54.39	19.85	19.88	19.85	22.32	43.32	25.10
Groundwater Elevation(feet)	324.49	268.97	267.66	260.18	269.60	268.36	267.59
Specific Conductivity (mS/cm)	0.653	0.433	0.706	0.635	1.940	6.550	3.920
pH(SU)	7.20	6.58	7.66	7.70	7.53	7.40	6.94
Temperature(°C)	9.27	12.24	10.41	11.43	9.66	11.30	12.42
ORP(mV)	-161.0	250.0	-34.0	218.0	33.0	68.0	231.0
Dissolved Oxygen(mg/L)	0.94	10.99	2.37	7.70	5.26	1.83	1.53

Post-Purge Readings

Well ID	THM-12	MW-1	MW-2	MW-3	MW-4	MW-5	MW-7
Date	11/21/2019	11/20/2019	11/20/2019	11/21/2019	11/20/2019	11/20/2019	11/20/2019
Top of Casing (feet)	331.45	276.39	275.77	276.02	273.46	273.61	274.85
Depth to Water (feet)	7.19	7.80	9.53	18.54	7.12	17.22	9.73
Depth to Bottom (feet)	54.39	19.85	19.88	19.85	22.32	43.32	25.10
Groundwater Elevation (feet)	324.26	268.59	266.24	257.48	266.34	256.39	265.12
Specific Conductivity (mS/cm)	0.567	0.562	1.630	0.658	2.170	7.460	4.530
pH (SU)	7.50	7.46	7.66	7.20	7.32	7.30	7.62
Temperature (°C)	8.37	9.98	12.21	9.64	9.17	11.04	10.93
ORP (mV)	138.0	64.0	-150.0	206.0	79.0	-55.0	-7.0
Dissolved Oxygen (mg/L)	0.93	3.24	0.00	5.09	5.21	0.00	2.70

Notes:

All measurements recorded in feet.

mg/L - Milligrams per liter.

SU - Standard units.

mS/cm - Micro siemens per centimeter.

°C - Degrees Celsius.

mV - Millivolts.

NTU - Nephelometric turbidity units.

NM - Not measured.

ORP - Oxidation reduction potential.

Table 3
Historic Groundwater Elevations
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Gauging Date	MW-1 276.39 ft msl		MW-2 275.77 ft msl		MW-3 276.02 ft msl		MW-4 273.46 ft msl		MW-5 273.61 ft msl		MW-7 274.85 ft msl		THM-12 331.45 ft msl	
	Depth to Water (ft bmpe)	Groundwater Elevation (ft msl)	Depth to Water (ft bmpe)	Groundwater Elevation (ft msl)	Depth to Water (ft bmpe)	Groundwater Elevation (ft msl)	Depth to Water (ft bmpe)	Groundwater Elevation (ft msl)	Depth to Water (ft bmpe)	Groundwater Elevation (ft msl)	Depth to Water (ft bmpe)	Groundwater Elevation (ft msl)	Depth to Water (ft bmpe)	Groundwater Elevation (ft msl)
12/10/14	7.45	268.94	7.93	267.84	14.00	262.02	3.93	269.53	5.63	267.98	NI	NA	11.06	320.39
03/26/15	NM	NA	NM	NA	NM	NA	4.12	269.34	5.46	268.15	NI	NA	7.87	323.58
06/10/15	7.48	268.91	8.02	267.75	14.42	261.60	4.39	269.07	5.44	268.17	NI	NA	10.27	321.18
11/10/15	7.72	268.67	8.85	266.92	15.00	261.02	5.50	267.96	6.45	267.16	NI	NA	14.16	317.29
05/19/16	7.65	268.74	8.38	267.39	15.44	260.58	5.15	268.31	9.00	264.61	NI	NA	7.40	324.05
11/03/16	7.75	268.64	8.65	267.12	14.22	261.80	4.67	268.79	5.72	267.89	7.22	267.63	14.63	316.82
05/11/17	7.63	268.76	7.76	268.01	14.11	261.91	3.94	269.52	6.67	266.94	6.69	268.16	5.36	326.09
11/15/17	8.15	268.24	9.08	266.69	12.79	263.23	5.33	268.13	5.82	267.79	7.65	267.20	12.35	319.10
05/22/18	7.65	268.74	8.21	267.56	18.06	257.96	4.70	268.76	5.34	268.27	7.16	267.69	7.57	323.88
11/26/18	7.27	269.12	7.79	267.98	16.46	259.56	3.66	269.80	5.53	268.08	6.89	267.96	4.80	326.65
05/21/19	7.44	268.95	7.86	267.91	17.76	258.26	4.15	269.31	5.23	268.38	7.06	267.79	6.56	324.89
11/20/19	7.42	268.97	8.11	267.66	15.84	260.18	3.86	269.60	5.25	268.36	7.26	267.59	6.96	324.49

Notes:

ft msl - Feet above mean sea level based on the National Geodetic Vertical Datum of 1988 (NGVD88).

ft bmpe - Feet below measuring point elevation.

NM - Not measured.

NA - No data available.

NI - Location not installed.

Table 4
November 2019 Volatile Organic Compound Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Parameter	New York State Groundwater Standards ⁽¹⁾	MW-1 11/20/2019	MW-2 11/20/2019	MW-3 11/21/2019	MW-4 11/20/2019	MW-5 11/20/2019	MW-7 11/20/2019	THM-12 11/21/2019
Volatile Organic Compounds by USEPA Method 8260C								
1,1,1-Trichloroethane	5	0.21 U	0.21 U	0.21 U	0.21 U [0.21 U]	0.21 U	0.21 U	0.21 U
1,1,2,2-Tetrachloroethane	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	5	0.25 U	0.25 U	0.25 U	0.25 U [0.25 U]	0.25 U	0.25 U	0.25 U
1,2-Dichlorobenzene	3	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	0.6	0.2 U	1.2	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	1	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	3	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenzene	3	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
2-Chloroethyl vinyl ether	NVG	NM	NM	NM	NM	NM	NM	NM
Acrolein	5	0.9 U	0.9 U	0.9 U	0.9 U [0.9 U]	0.9 U	0.9 U	0.9 U
Acrylonitrile	5	0.9 U	0.9 U	0.9 U	0.9 U [0.9 U]	0.9 U	0.9 U	0.9 U
Benzene	1	0.2 U	2.0	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
Bromodichloromethane	50	0.22 U	0.22 U	0.22 U	0.22 U [0.22 U]	0.22 U	0.22 U	0.22 U
Bromoform	50	0.25 U	0.25 U	0.25 U	0.25 U [0.25 U]	0.25 U	0.25 U	0.25 U
Bromomethane	5	0.7 U	0.7 U	0.7 U	0.7 U [0.7 U]	0.7 U	0.7 U	0.7 U
Carbon tetrachloride	5	0.34 U	0.34 U	0.34 U	0.34 U [0.34 U]	0.34 U	0.34 U	0.34 U
Chlorobenzene	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
Chloroethane	5	0.23 U	0.23 U	0.23 U	0.23 U [0.23 U]	0.23 U	0.23 U	0.23 U
Chloroform	7	0.24 U	0.24 U	0.24 U	1.5 [1.5]	0.24 U	0.24 U	0.24 U
Chloromethane	5	0.28 U	0.28 U	0.28 U	0.28 U [0.28 U]	0.28 U	0.28 U	0.28 U
cis-1,2-Dichloroethene	5	1.3	0.23 U	0.23 U	8.4 [8.7]	3.4	0.23 U	0.23 U
cis-1,3-Dichloropropene	0.40**	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
Dibromochloromethane	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
Dichlorodifluoromethane	5	0.21 U	0.21 U	0.21 U	0.21 U [0.21 U]	0.21 U	0.21 U	0.21 U
Dichloromethane	5	0.36 U	0.36 U	0.36 U	0.36 U [0.36 U]	0.36 U	0.36 U	0.36 U
Ethylbenzene	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
Tetrachloroethene	5	0.21 U	0.21 U	0.21 U	0.21 U [0.21 U]	0.21 U	0.21 U	0.21 U
Toluene	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.40**	0.23 U	0.23 U	0.23 U	0.23 U [0.23 U]	0.23 U	0.23 U	0.23 U
Trichloroethene	5	1.4	0.2 U	0.2 U	7.2 [7.4]	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane	5	0.24 U	0.24 U	0.24 U	0.24 U [0.24 U]	0.24 U	0.24 U	0.24 U
Vinyl chloride	2	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
m,p-Xylenes	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
o-Xylene	5	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U

Notes:

All concentrations reported in micrograms per liter (µg/L).

⁽¹⁾ New York groundwater standards as given in TOGS 1.1.1 Table 5.

NVG - No standard value listed by NYSDEC.

** - Applies to the sum of cis- and trans-1,3-dichloropropene.

U - Analyte was not detected above reported quantitation limit.

BOLD values indicate that the analyte was detected.

Shaded values indicate that the analyte exceeds the NYSGWQS.

NM - Not measured.

Table 5
November 2019 General Chemistry and Inorganics Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Parameter	New York State Groundwater Standards ⁽¹⁾	Units	MW-1	MW-2	MW-3	MW-4	MW-5	MW-7	THM-12
			11/20/2019	11/20/2019	11/21/2019	11/20/2019	11/20/2019	11/20/2019	11/21/2019
General Chemistry Parameters									
Total Organic Carbon	NVG	mg/L	2.5	1.2	1.2	2.2 [2.7]	2	2.1	2.5
Chloride	250	mg/L	84.5	428	14.4	569 [579]	2180	1220	0.5 U
Total Recoverable Phenolics	0.001	mg/L	0.001 U	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.0027	0.001 U
Total Dissolved Solids	1,000	mg/L	445	984	546	1150 [1170]	3930	2340	405
Inorganic Parameters									
Dissolved Barium	1,000	µg/L	56.9	3660	189	66.9 [67.4]	311	237	108

Notes:

General chemistry concentrations reported in milligrams per liter (mg/L, equivalent to parts per million).

Inorganic concentrations reported in micrograms per liter (µg/L, equivalent to parts per billion).

⁽¹⁾ New York groundwater standards as given in TOGS 1.1.1 Table 5.

BOLD values indicate that the analyte was detected.

Shaded values indicate that the analyte exceeds the New York State Groundwater Quality Standards.

NVG - No standard value listed by NYSDEC.

U - Analyte was not detected above reported quantitation limit.

Table 6
Summary of Historic Volatile Organic Compound Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Well ID	New York Groundwater Standards ⁽¹⁾	MW-1							
		12/10/14	03/26/15	06/10/15	11/10/15	11/03/16	11/16/17	11/27/18	11/20/19
1,1,1-Trichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
1,1,2,2-Tetrachloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1,2-Trichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.25 U
1,2-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloroethane	0.6	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloropropane	1	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,3-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,4-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
2-Chloroethyl vinyl ether	NVG	10 U	NS	1.0 U	1.0 U	1.0 U	5.0 U	NM	NM
Acrolein	5	50 U	NS	10 U	10 U	10 U	20 U	5.0 U	0.9 U
Acrylonitrile	5	50 U	NS	10 U	10 U	10 U	5.0 U	5.0 U	0.9 U
Benzene	1	1.0 U	NS	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Bromodichloromethane	50	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 U
Bromoform	50	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
Bromomethane	5	2.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.7 U
Carbon tetrachloride	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 U
Chlorobenzene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Chloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.23 U
Chloroform	7	1.0 U	NS	0.82 J	0.41 J	0.27 J	0.43 J	1.0 U	0.24 U
Chloromethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.28 U
cis-1,2-Dichloroethene	5	1.8	NS	2.6	2.0	1.0	1.0 U	1.7	1.3
cis-1,3-Dichloropropene	0.40**	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dibromochloromethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dichlorodifluoromethane	5	5.0 U	NS	5.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.21 U
Dibromomethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	0.61 J	1.0 U	0.36 U
Ethylbenzene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Tetrachloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
Toluene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,2-Dichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,3-Dichloropropene	0.40**	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Trichloroethene	5	1.3	NS	2.5	1.4	0.96 J	2.4	1.3	1.4
Trichlorofluoromethane	5	5.0 U	NS	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Vinyl chloride	2	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.2 U
m,p-Xylenes	5	2.0 U	NS	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	0.2 U
o-Xylene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.2 U

Table 6
Summary of Historic Volatile Organic Compound Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Well ID	New York Groundwater Standards ⁽¹⁾	MW-2							
		12/09/14	03/26/15	06/09/15	11/10/15	11/03/16	11/15/17	11/27/18	11/20/19
1,1,1-Trichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
1,1,2,2-Tetrachloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1,2-Trichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
1,2-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloroethane	0.6	1.3	NS	1.1	0.69	0.51 J	1.1	1.0 U	1.2
1,2-Dichloropropane	1	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,3-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,4-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
2-Chloroethyl vinyl ether	NVG	10 U	NS	1.0 U	1.0 U	1.0 U	5.0 U	NM	NM
Acrolein	5	50 U	NS	10 U	10 U	10 U	20 U	5.0 U	0.9 U
Acrylonitrile	5	50 U	NS	10 U	10 U	10 U	5.0 U	5.0 U	0.9 U
Benzene	1	1.9	NS	1.6	0.88 J	0.41 J	1.6	1.1	2.0
Bromodichloromethane	50	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 U
Bromoform	50	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
Bromomethane	5	2.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.7 U
Carbon tetrachloride	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 U
Chlorobenzene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Chloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Chloroform	7	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Chloromethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.28 U
cis-1,2-Dichloroethene	5	1.0 U	NS	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
cis-1,3-Dichloropropene	0.40**	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dibromochloromethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dichlorodifluoromethane	5	5.0 U	NS	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
Dibromomethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 U
Ethylbenzene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Tetrachloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
Toluene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,2-Dichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,3-Dichloropropene	0.40**	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Trichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Trichlorofluoromethane	5	5.0 U	NS	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Vinyl chloride	2	0.48 J	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
m,p-Xylenes	5	2.0 U	NS	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	0.2 U
o-Xylene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.2 U

Table 6
Summary of Historic Volatile Organic Compound Data
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General Electric Global Research Center
Niskayuna, New York

Well ID	New York Groundwater Standards ⁽¹⁾	MW-3							
		12/10/14	03/26/15	06/09/15	11/10/15	11/03/16	11/16/17	11/27/18	11/21/19
1,1,1-Trichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
1,1,2,2-Tetrachloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1,2-Trichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.25 U
1,2-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloroethane	0.6	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloropropane	1	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,3-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,4-Dichlorobenzene	3	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
2-Chloroethyl vinyl ether	NVG	10 U	NS	1.0 U	1.0 U	1.0 U	5.0 U	NM	NM
Acrolein	5	50 U	NS	10 U	10 U	10 U	20 U	5.0 U	0.9 U
Acrylonitrile	5	50 U	NS	10 U	10 U	10 U	5.0 U	5.0 U	0.9 U
Benzene	1	1.0 U	NS	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Bromodichloromethane	50	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 U
Bromoform	50	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
Bromomethane	5	2.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.7 U
Carbon tetrachloride	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 U
Chlorobenzene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Chloroethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.23 U
Chloroform	7	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Chloromethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.28 U
cis-1,2-Dichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
cis-1,3-Dichloropropene	0.40**	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dibromochloromethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dichlorodifluoromethane	5	5.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.21 U
Dibromomethane	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	0.60 J	1.0 U	0.36 U
Ethylbenzene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Tetrachloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
Toluene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,2-Dichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,3-Dichloropropene	0.40**	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Trichloroethene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Trichlorofluoromethane	5	5.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Vinyl chloride	2	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	0.2 U
m,p-Xylenes	5	2.0 U	NS	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	0.2 U
o-Xylene	5	1.0 U	NS	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.2 U

Table 6
Summary of Historic Volatile Organic Compound Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Well ID	New York Groundwater Standards ⁽¹⁾	MW-4								
		12/10/14	03/26/15	06/10/15	11/10/15	08/18/16	11/03/16	11/15/17	11/27/18	11/20/19
1,1,1-Trichloroethane	5	1.0 U	0.37 J	0.53 J	0.69 J	1.0 U	0.90 J	1.0 U	1.0 U [1.0 U]	0.21 U [0.21 U]
1,1,2,2-Tetrachloroethane	5	1.0 U	0.52 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
1,1,2-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	0.77 J	2.2	0.49 J	0.86 J	1.0 U [1.0 U]	0.2 U [0.2 U]
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	0.0 U30 J	1.0 U	1.0 U	1.0 U [1.0 U]	0.25 U [0.25 U]
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	2.9	9.4	0.33 J	4.3	1.0 U [1.0 U]	0.2 U [0.2 U]
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	0.65 J	1.0 U	1.0 U	1.1	1.0 U [1.0 U]	0.2 U [0.2 U]
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	0.82 J	1.1	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
2-Chloroethyl vinyl ether	NVG	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	NM	NM
Acrolein	5	50 U	50 U	50 U	10 U	10 U	10 U	20 U	5.0 U [5.0 U]	0.9 U [0.9 U]
Acrylonitrile	5	50 U	50 U	50 U	10 U	10 U	10 U	5.0 U	5.0 U [5.0 U]	0.9 U [0.9 U]
Benzene	1	1.0 U	1.0 U	0.50 U	1.0 U	2.8	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
Bromodichloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.22 U [0.22 U]
Bromoform	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.25 U [0.25 U]
Bromomethane	5	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.7 U [0.7 U]
Carbon tetrachloride	5	1.0 U	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.34 U [0.34 U]
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	0.85 J	5.7	1.0 U	1.4	1.0 U [1.0 U]	0.2 U [0.2 U]
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.23 U [0.23 U]
Chloroform	7	1.8 B	4.3	3.9	3.7	3.7	5.1	2.5	1.0 U [1.0 U]	1.5 [1.5]
Chloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.28 U [0.28 U]
cis-1,2-Dichloroethene	5	11.5	10.4	19.2	14	33.8	11	14	5.1 [4.5]	8.4 [8.7]
cis-1,3-Dichloropropene	0.40**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
Dibromochloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	1.0 U	0.81 J	1.0 U	1.0 U	1.0 U [1.0 U]	0.21 U [0.21 U]
Dibromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.36 U [0.36 U]
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
Tetrachloroethene	5	0.57 J	0.57 J	1.1	0.76 J	0.57 J	0.67 J	0.66 J	1.0 U [1.0 U]	0.21 U [0.21 U]
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	0.57 J	0.33 J	1.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
trans-1,3-Dichloropropene	0.40**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.23 U [0.23 U]
Trichloroethene	5	10.2	11.4	20.7	12	7.9	12	11	6.6 [1.0 U]	7.2 [7.4]
Trichlorofluoromethane	5	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.24 U [0.24 U]
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	0.97 J	11.1	1.0 U	1.8	1.0 U [1.0 U]	0.2 U [0.2 U]
m,p-Xylenes	5	2.0 U	2.0 U	2.0 U	2.0 U	1.8 J	2.0 U	2.0 U	1.0 U [1.0 U]	0.2 U [0.2 U]
o-Xylene	5	1.0 U	1.0 U	1.0 U	1.0 U	0.65 J	1.0 U	1.0 U	2.0 U	0.2 U [0.2 U]

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Well ID	New York Groundwater Standards ⁽¹⁾	MW-5								
		12/10/14	03/25/15	06/10/15	11/10/15	08/18/16	11/03/16	#####	11/27/18	11/20/19
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1,2-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	0.20 J	0.38 J	0.32 J	1.0 U	1.0 U	0.2 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	0.50 J	0.45 J	2.8	1.5	1.0 U	1.0 U	0.2 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	0.38 J	0.23 J	1.0 U	1.0 U	0.2 U
2-Chloroethyl vinyl ether	NVG	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	NM	NM
Acrolein	5	50 U	50 U	50 U	10 U	10 U	10 U	20 U	5.0 U	0.9 U
Acrylonitrile	5	50 U	50 U	50 U	10 U	10 U	10 U	5.0 U	5.0 U	0.9 U
Benzene	1	1.0 U	1.0 U	0.45 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Bromodichloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 U
Bromoform	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
Bromomethane	5	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.7 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 U
Chlorobenzene	5	1.0 U	1.0 U	0.86 J	1.0 U	1.0 U	0.46 J	1.0 U	1.0 U	0.2 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Chloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	0.28 U
cis-1,2-Dichloroethene	5	8.8	6.4	15.8	6.1	24.5	15	1.7	4.8	3.4
cis-1,3-Dichloropropene	0.40**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dibromochloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	0.21 U
Dibromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
Toluene	5	1.0 U	1.0 U	1.0 U	0.30 J	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	0.36 J	1.0 U	1.0 U	0.2 U
trans-1,3-Dichloropropene	0.40**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Trichloroethene	5	1.4	1.0	3.2	1.5	6.1	2.9	1.0 U	1.0 U	0.2 U
Trichlorofluoromethane	5	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
m,p-Xylenes	5	2.0 U	2.0 U	2.0 U	2.0 U	0.66 J	2.0 U	2.0 U	1.0 U	0.2 U
o-Xylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.2 U

Table 6
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Niskayuna, New York

Well ID	New York Groundwater Standards ⁽¹⁾	MW-7								
		12/10/14	03/25/15	06/10/15	11/10/15	08/18/16	11/03/16	11/16/17	11/27/18	11/20/19
1,1,1-Trichloroethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
1,1,2,2-Tetrachloroethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1,2-Trichloroethane	5	NI	NI	NI	NI	1.0 U	0.34 J	1.0 U	1.0 U	0.2 U
1,1-Dichloroethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U *	1.0 U	0.25 U
1,2-Dichlorobenzene	3	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloroethane	0.6	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloropropane	1	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,3-Dichlorobenzene	3	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,4-Dichlorobenzene	3	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
2-Chloroethyl vinyl ether	NVG	NI	NI	NI	NI	1.0 U	1.0 U	5.0 U	NM	NM
Acrolein	5	NI	NI	NI	NI	10 U	10 U	20 U	5.0 U	0.9 U
Acrylonitrile	5	NI	NI	NI	NI	10 U	10 U	5.0 U	5.0 U	0.9 U
Benzene	1	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Bromodichloromethane	50	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.22 U
Bromoform	50	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
Bromomethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U *	1.0 U	0.7 U
Carbon tetrachloride	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.34 U
Chlorobenzene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Chloroethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U *	1.0 U	0.23 U
Chloroform	7	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Chloromethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U *	1.0 U	0.28 U
cis-1,2-Dichloroethene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
cis-1,3-Dichloropropene	0.40**	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dibromochloromethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dichlorodifluoromethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U *	1.0 U	0.21 U
Dibromomethane	5	NI	NI	NI	NI	1.0 U	1.0 U	0.48 J	1.0 U	0.36 U
Ethylbenzene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Tetrachloroethene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
Toluene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,2-Dichloroethene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,3-Dichloropropene	0.40**	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Trichloroethene	5	NI	NI	NI	NI	1.0 U	0.67 J	1.0 U	1.0 U	0.2 U
Trichlorofluoromethane	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Vinyl chloride	2	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U *	1.0 U	0.2 U
m,p-Xylenes	5	NI	NI	NI	NI	2.0 U	2.0 U	2.0 U	1.0 U	0.2 U
o-Xylene	5	NI	NI	NI	NI	1.0 U	1.0 U	1.0 U	2.0 U	0.2 U

Table 6
Summary of Historic Volatile Organic Compound Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Well ID	New York Groundwater Standards ⁽¹⁾	THM-12								
		12/11/14	03/26/15	06/10/15	11/10/15	05/19/16	11/03/16	11/16/17	11/27/18	11/21/19
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1,2-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	0.25 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
2-Chloroethyl vinyl ether	NVG	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	NM	NM
Acrolein	5	50 U	50 U	50 U	10 U	10 U	10 U	20 U	5.0 U	0.9 U
Acrylonitrile	5	50 U	50 U	50 U	10 U	10 U	10 U	5.0 U	5.0 U	0.9 U
Benzene	1	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Bromodichloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 U
Bromoform	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 U
Bromomethane	5	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	0.7 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	0.23 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Chloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	0.28 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
cis-1,3-Dichloropropene	0.40**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dibromochloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	0.21 U
Dibromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.46 J	1.0 U	0.36 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
trans-1,3-Dichloropropene	0.40**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U
Trichlorofluoromethane	5	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	4.6	1.0 U	0.67 J	1.0 U*	1.0 U	0.2 U
m,p-Xylenes	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	0.2 U
o-Xylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.2 U

Table 6
Summary of Historic Volatile Organic Compound Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Notes:

All concentrations reported in micrograms per liter ($\mu\text{g/L}$, equivalent to parts per billion).

⁽¹⁾ New York groundwater standards as given in TOGS 1.1.1 Table 5.

U - Indicates that the analyte was not detected at the reporting limit shown.

BOLD values indicate that the analyte was detected.

Shaded values indicate that the analyte exceeds the NYSGWQS.

** - Applies to the sum of cis- and trans-1,3-dichloropropene.

* - Results flagged with an asterisk (*) indicate values outside control criteria.

J - Indicates an estimated concentration below the Reporting Limit, but greater than the Method Detection Limit.

NVG - No standard value listed by NYSDEC.

NS - No sample collected.

NI - Not installed.

Table 7
Summary of Historic General Chemistry and Inorganics Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Well ID	Date	General Chemistry				Inorganics
		TOC	Chloride	Phenolics	TDS	Barium
New York Groundwater Standards ⁽¹⁾		NVG	250	0.001	1,000	1,000
Units		mg/L	mg/L	mg/L	mg/L	µg/L
MW-1	12/10/14	3	40.7	0.001	343	200 U
	03/26/15	NS	NS	NS	NS	NS
	06/10/15	3	34.9	0.0050 U	388	200 U
	11/10/15	2.6	14.9	0.0020 U	375	54
	11/03/16	3.0	18.4	0.0020 U	374	48
	11/16/17	2.6 B	58 B	0.0010 U	472	85.1
	11/27/18	2.6	259	0.0020 U	747	158
MW-2	11/20/19	2.5	84.5	0.001 U	445	56.9
	12/09/14	2.2	192	0.0050 U	584	2,130
	03/26/15	NS	NS	NS	NS	NS
	06/09/15	2	83.3	0.0050 U	463	1,730
	11/10/15	1.1	139	0.0020 U	488	2,210
	11/03/16	1.2	276	0.0020 U	628	2,270
	11/15/17	0.97 J B	224 B	0.0010 U	722	2,660
MW-3	11/27/18	1.5	405	0.0020 U	993	3,630
	11/20/19	1.2	428	0.001 U	984	3,660
	12/10/14	1.6	14	0.0050 U	465	1.0 U
	03/26/15	NS	NS	NS	NS	NS
	06/09/15	1.9	13.8	0.0050 U	512	217
	11/10/15	1.6	14.4	0.0020 U	541	211
	11/03/16	1.4	14.1	0.0020 U	543	209
MW-4	11/16/17	1.1 B	NS	0.0010 U	NS	214
	11/27/18	1.6	12.5	0.0020 U	583	214
	11/21/19	1.2	14.4	0.001 U	546	189
	12/10/14	NS	NS	NS	NS	200 UJ
	03/26/15	NS	NS	NS	NS	NS
	06/10/15	NS	NS	NS	NS	NS
	11/10/15	2.7	353	0.0020 U	881	57
MW-5	11/03/16	2.5	411	0.0020 U	938	151
	11/15/17	2.4 B	175 B	0.0010 U	691	37.4
	11/27/18	2.8 [2.4]	510 [1,620]	0.0020 U	1,160 [3,370]	70 [255]
	11/20/19	2.2 [2.7]	569 [579]	0.001 U [0.001 U]	1,150 [1,170]	66.9 [67.4]
	12/10/14	NS	NS	NS	NS	247
	03/26/15	NS	NS	NS	NS	NS
	06/10/15	NS	NS	NS	NS	NS
MW-6	11/10/15	1.9	2,620	0.0040 U	5,150	317
	11/03/16	3.0	2,780	0.0080 U	3,560	245
	11/15/17	1.8 B	2,430 B	0.0010 U	4,620	336
	11/27/18	2.3	1,640	0.0020 U	3,370	253
	11/20/19	2	2,180	0.001 U	3,930	311
	12/10/14	NI	NI	NI	NI	NI
	03/26/15	NI	NI	NI	NI	NI
MW-7	06/10/15	NI	NI	NI	NI	NI
	11/10/15	NI	NI	NI	NI	NI
	11/03/16	2.6	1,060	0.0040 U	1,980	185
	11/16/17	1.6 B	944 B	0.0057 J	2,020	307
	11/27/18	3.8	87.1	0.0020 U	397	39
	11/20/19	2.1	1,220	0.0027	2,340	237

Table 7
Summary of Historic General Chemistry and Inorganics Data
2019 Site Monitoring and Maintenance Report
General Electric Global Research Center
Niskayuna, New York

Well ID	Date	General Chemistry				Inorganics
		TOC	Chloride	Phenolics	TDS	Barium
New York Groundwater Standards ⁽¹⁾		NVG	250	0.001	1,000	1,000
Units		mg/L	mg/L	mg/L	mg/L	µg/L
THM-12	12/11/14	7.7	2.0 U	0.0050 U	418	200 U
	03/26/15	NS	NS	NS	NS	NS
	06/10/15	4.5	2.0 U	0.0050 U	369	200 U
	11/10/15	1.3	2.0 U	0.0020 U	396	111
	11/03/16	1.0 U	2.0 U	0.0020 U	342	111
	11/16/17	1.2 B	1.7 B	0.0010 U	432	153
	11/27/18	6.1	2.0 U	0.0036	384	142
	11/21/19	2.5	0.5 U	0.001 U	405	108

Notes:

General chemistry concentrations reported in milligrams per liter (mg/L, equivalent to parts per million).

Inorganic concentrations reported in micrograms per liter (µg/L, equivalent to parts per billion).

⁽¹⁾ New York groundwater standards as given in TOGS 1.1.1 Table 5.

< - Indicates that the analyte was not detected at the reporting limit shown.

BOLD values indicate that the analyte was detected.

Shaded values indicate that the analyte exceeds the NYSGWQS.

NVG - No standard value listed by NYSDEC.

NS - No sample collected.

NI - Not installed.

B - Indicates that the method blank was contaminated.

J - Indicates an estimated concentration below the Reporting Limit, but greater than the Method Detection Limit.

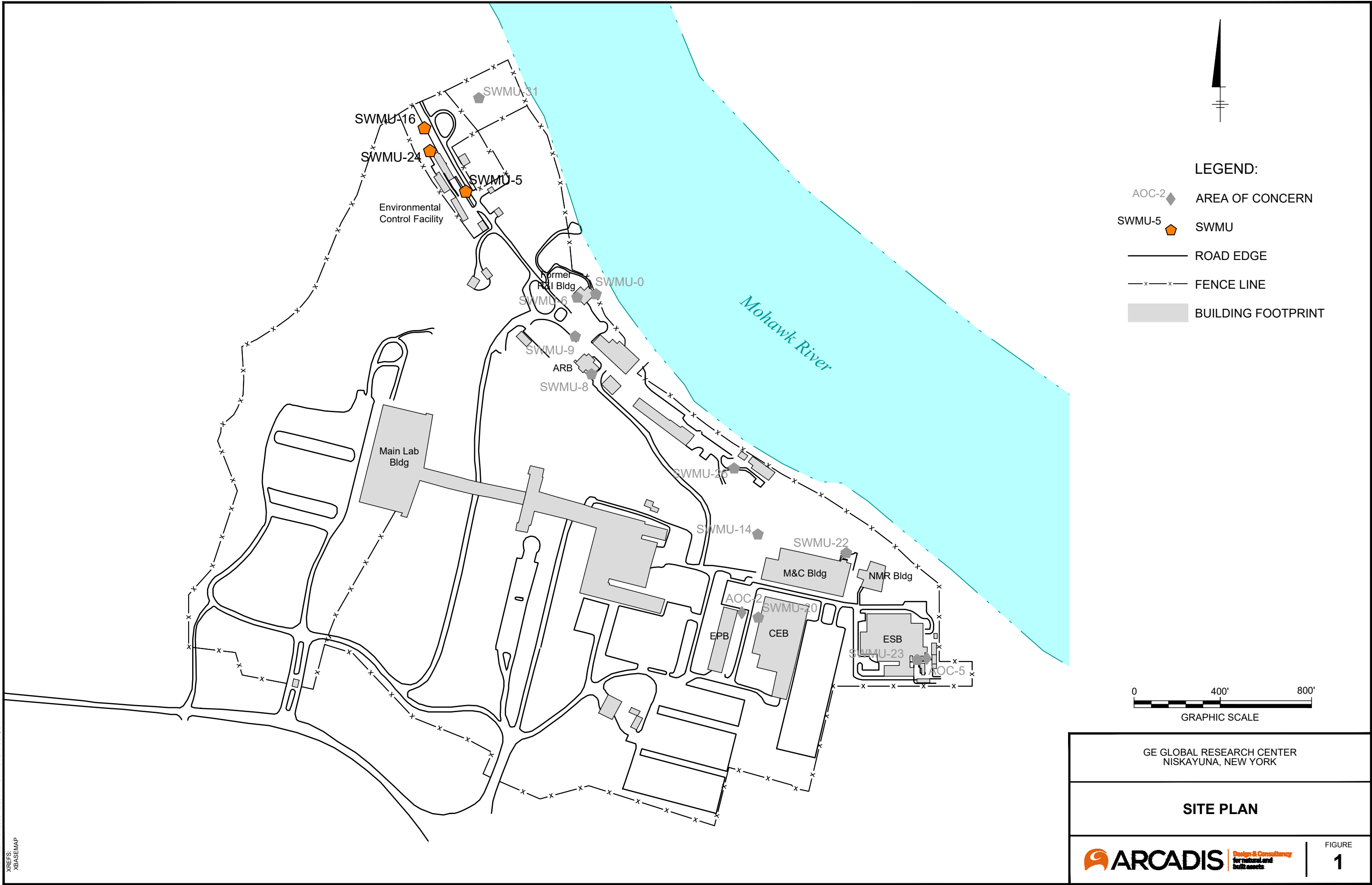
TDS - Total Dissolved Solids.

TOC - Total Organic Carbon.

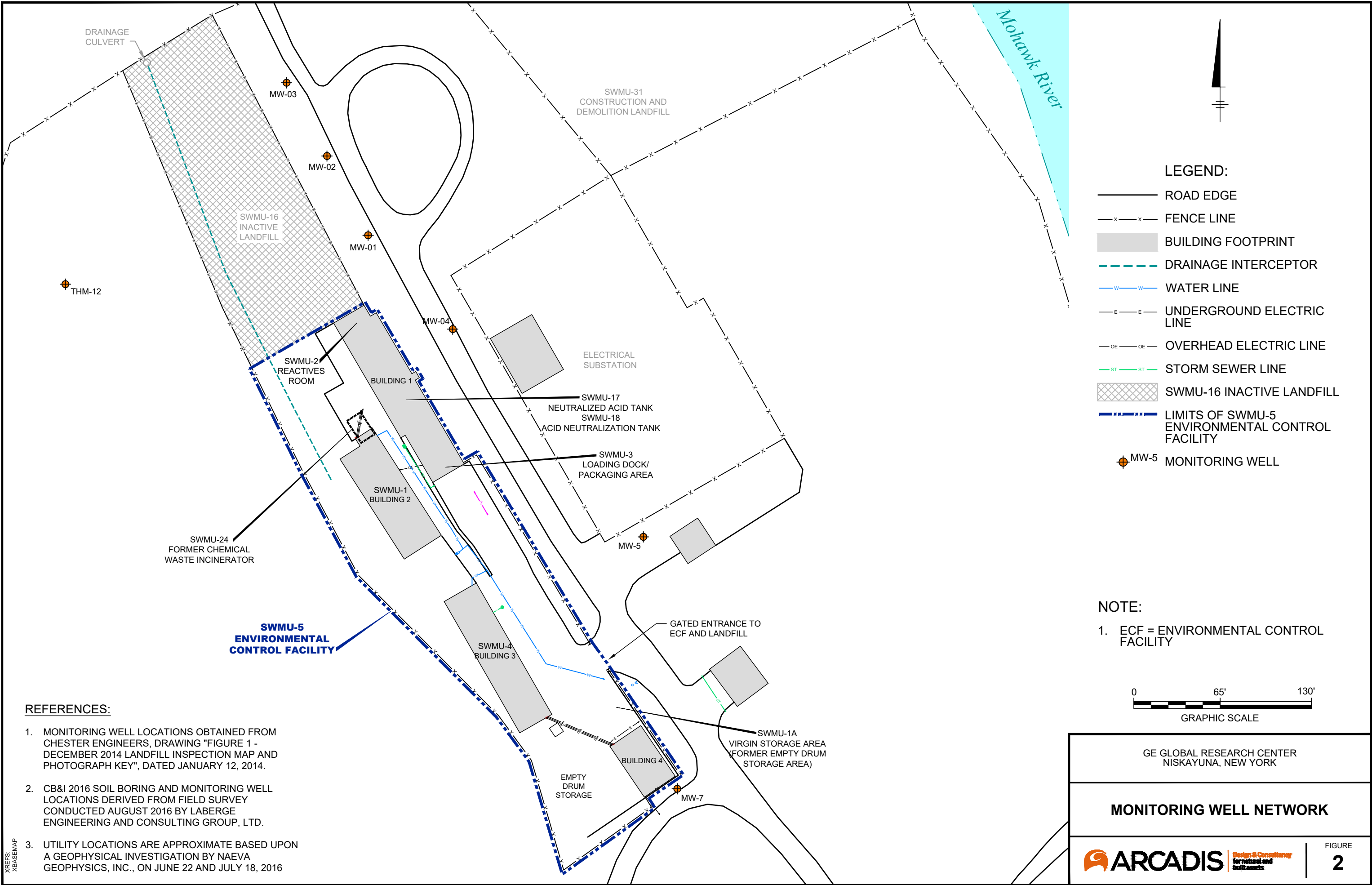
FIGURES



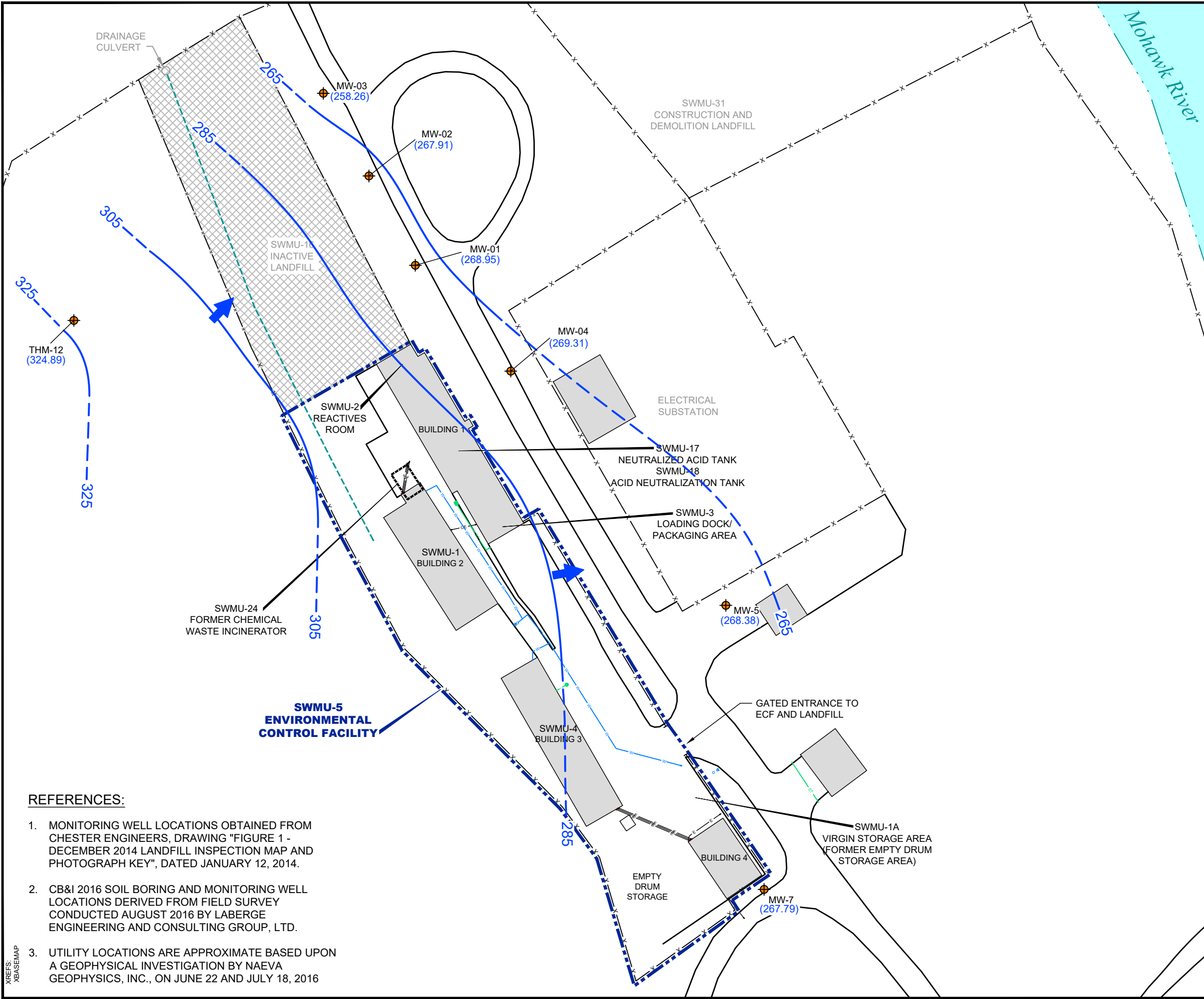
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PLOTTED: 12/4/2020 12:33 PM BY: POSENAUER, LISA
XREFS:
XBASEMAP



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LEGEND:

- ROAD EDGE
- FENCE LINE
- BUILDING FOOTPRINT
- DRAINAGE INTERCEPTOR
- WATER LINE
- UNDERGROUND ELECTRIC LINE
- OVERHEAD ELECTRIC LINE
- STORM SEWER LINE
- SWMU-16 INACTIVE LANDFILL
- LIMITS OF SWMU-5 ENVIRONMENTAL CONTROL FACILITY
- MONITORING WELL
- GROUNDWATER ELEVATION (FEET)
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- APPARENT GROUNDWATER FLOW DIRECTION

NOTE:

- ECF = ENVIRONMENTAL CONTROL FACILITY

0 65' 130'

GRAPHIC SCALE

- REFERENCES:**
- MONITORING WELL LOCATIONS OBTAINED FROM CHESTER ENGINEERS, DRAWING "FIGURE 1 - DECEMBER 2014 LANDFILL INSPECTION MAP AND PHOTOGRAPH KEY", DATED JANUARY 12, 2014.
 - CB&I 2016 SOIL BORING AND MONITORING WELL LOCATIONS DERIVED FROM FIELD SURVEY CONDUCTED AUGUST 2016 BY LABERGE ENGINEERING AND CONSULTING GROUP, LTD.
 - UTILITY LOCATIONS ARE APPROXIMATE BASED UPON A GEOPHYSICAL INVESTIGATION BY NAEVA GEOPHYSICS, INC., ON JUNE 22 AND JULY 18, 2016

GE GLOBAL RESEARCH CENTER
NISKAYUNA, NEW YORK

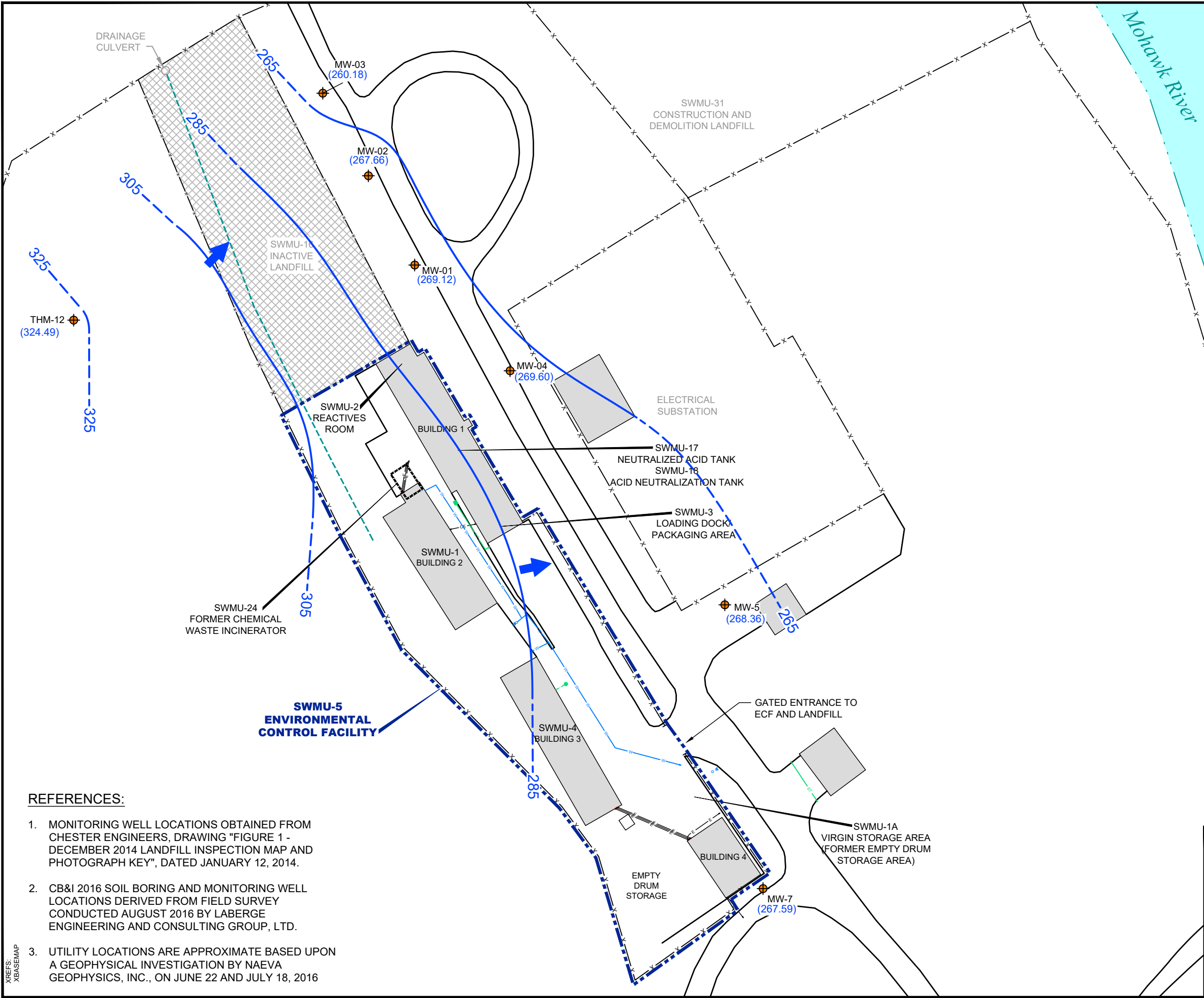
GROUNDWATER CONTOUR MAP
MAY 21, 2019

ARCADIS Design & Consultancy for natural and built assets

FIGURE
3

CITY: SYRACUSE, NY DIV: GROUP: IMDV DB: LPOSENAUER PM: TM: D: WEEKS L: YR: (OPTIONAL) OFF: REF: C:\Users\lposenaue\BIM\360\Arcadis\ANA - GE CORP ENV PROG\Project Files\GE GRC NISKAYUNA - 08\2020\20300615001-DWG\GWMR_04_GWE.dwg LAYOUT: 4 SAVED: 1/24/2020 12:18 PM ACADVER: 23.1S (LMS TECH) PAGES: 4 C:\Users\lposenaue\BIM\360\Arcadis\ANA - GE CORP ENV PROG\Project Files\GE GRC NISKAYUNA - 08\2020\20300615001-DWG\GWMR_04_GWE.dwg LAYOUT: 4 SAVED: 1/24/2020 12:18 PM ACADVER: 23.1S (LMS TECH) PAGES: 4

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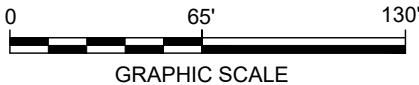
1. MONITORING WELL LOCATIONS OBTAINED FROM CHESTER ENGINEERS, DRAWING "FIGURE 1 - DECEMBER 2014 LANDFILL INSPECTION MAP AND PHOTOGRAPH KEY", DATED JANUARY 12, 2014.
2. CB&I 2016 SOIL BORING AND MONITORING WELL LOCATIONS DERIVED FROM FIELD SURVEY CONDUCTED AUGUST 2016 BY LABERGE ENGINEERING AND CONSULTING GROUP, LTD.
3. UTILITY LOCATIONS ARE APPROXIMATE BASED UPON A GEOPHYSICAL INVESTIGATION BY NAEVA GEOPHYSICS, INC., ON JUNE 22 AND JULY 18, 2016

LEGEND:

- ROAD EDGE
- FENCE LINE
- BUILDING FOOTPRINT
- DRAINAGE INTERCEPTOR
- WATER LINE
- UNDERGROUND ELECTRIC LINE
- OVERHEAD ELECTRIC LINE
- STORM SEWER LINE
- SWMU-16 INACTIVE LANDFILL
- LIMITS OF SWMU-5 ENVIRONMENTAL CONTROL FACILITY
- MONITORING WELL
- GROUNDWATER ELEVATION (FEET)
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- APPARENT GROUNDWATER FLOW DIRECTION

NOTE:

1. ECF = ENVIRONMENTAL CONTROL FACILITY

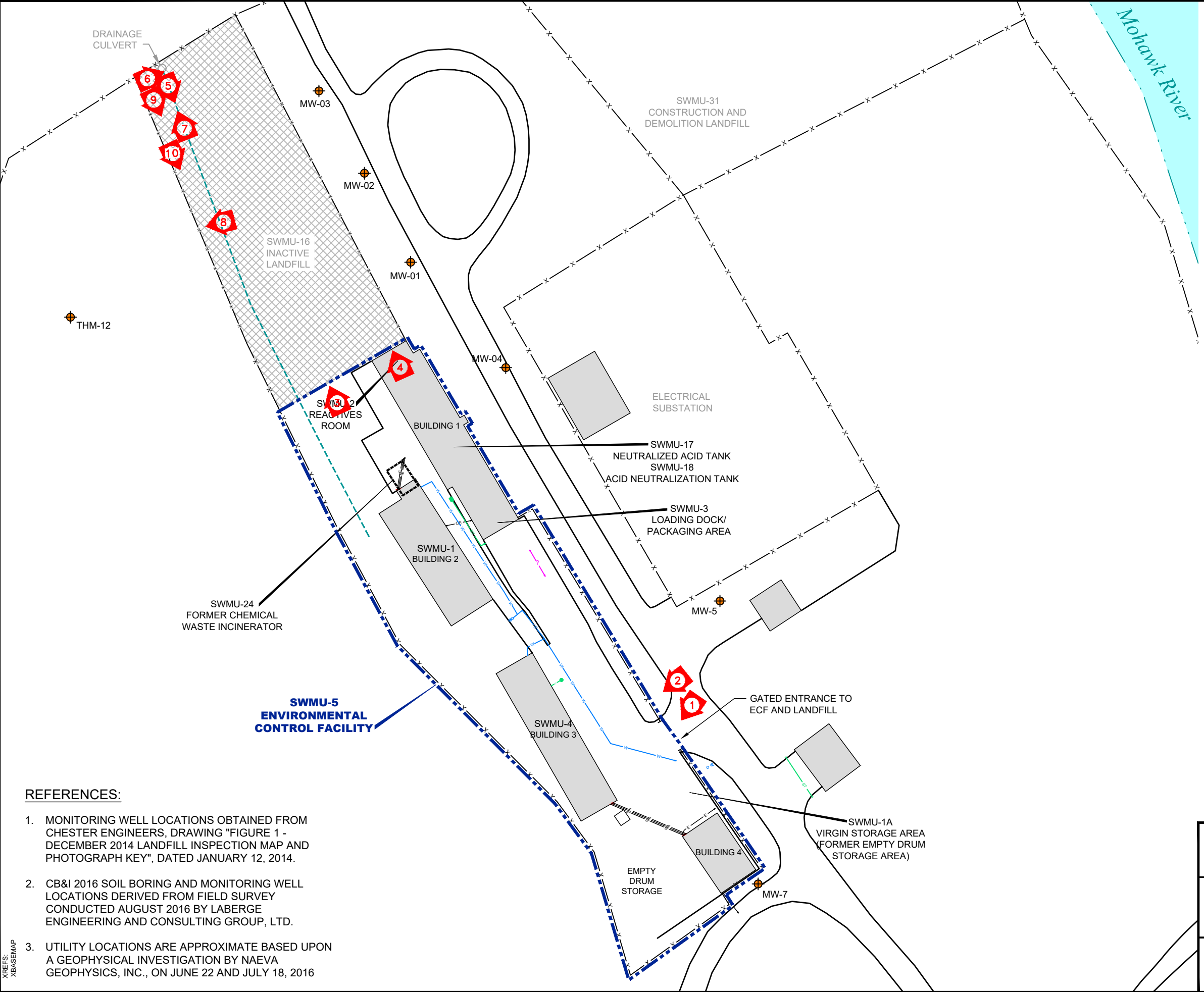


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NISKAYUNA, NEW YORK

GROUNDWATER CONTOUR MAP NOVEMBER 21, 2019



CITY: SYRACUSE, NY DIV/GROUP: IM/DV DB: LPOSENAUER PM/TM: D.WEEKS LYS/CONON: "OFF-REF"
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XREFS: XBASEMAP

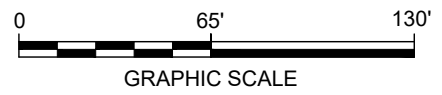


LEGEND:

- ROAD EDGE
- FENCE LINE
- BUILDING FOOTPRINT
- DRAINAGE INTERCEPTOR
- WATER LINE
- UNDERGROUND ELECTRIC LINE
- OVERHEAD ELECTRIC LINE
- STORM SEWER LINE
- SWMU-16 INACTIVE LANDFILL
- LIMITS OF SWMU-5 ENVIRONMENTAL CONTROL FACILITY
- MONITORING WELL
- LANDFILL INSPECTION PHOTOGRAPH LOCATION AND DIRECTION

NOTES:

- ECF = ENVIRONMENTAL CONTROL FACILITY
- SEE APPENDIX F FOR PHOTOGRAPHS.



REFERENCES:

- MONITORING WELL LOCATIONS OBTAINED FROM CHESTER ENGINEERS, DRAWING "FIGURE 1 - DECEMBER 2014 LANDFILL INSPECTION MAP AND PHOTOGRAPH KEY", DATED JANUARY 12, 2014.
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- UTILITY LOCATIONS ARE APPROXIMATE BASED UPON A GEOPHYSICAL INVESTIGATION BY NAEVA GEOPHYSICS, INC., ON JUNE 22 AND JULY 18, 2016

GE GLOBAL RESEARCH CENTER
NISKAYUNA, NEW YORK

INACTIVE LANDFILL INSPECTION
PHOTOGRAPHIC LOCATIONS



APPENDIX A

May 2019 Field Forms



Page 1 of 1

MW-03

Date _____

5/21/19

Weather

50s chunky

Well Material ☒ PVC
☐ SS

* Note: baiter was in well submerged / wrong direction + water was removed - insects collected

Sample baiter

Method water level

Sampled by JS see daily notes

Redox Page.

Purge Method:

Centrifugal _____
Submersible _____
Other _____

Replicate/
Code No. _____

Sampled by JS

[illegible]

Gallons/Foot 1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Location:	Boat edge	Well Locked at Arrival:	Yes	/	No
Condition of Well:	Good - but disconnected	Well Locked at Departure:	Yes	/	No
Well Completion:	Flush Mount / Stick Up	Key Number To Well:			

$$PIS \approx 0.0$$

GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. _____

Well ID

MM-01

Date _____

5/21/19

Project Name/Location GE Niskayuna

Weather

50s, 50s

Measuring Pt. TWC
Description

Screen
Setting (ft-bmp)

Casing
Diameter (in.) 7

Well Material X PVC
SS

Static Water Level (ft-bmp) 7.44

Total Depth (ft-bmp) 19.76

Water Column/
Gallons in Well 17.37 / 1.97

MP Elevation

Pump Intake (ft-bmp)

Purge Method:

Sample Method *badier*

Pump On/Off

Volumes Purged

Centrifugal _____
Submersible _____
Other _____

Sample	Time Label	Start	End
1	1	0.00	0.05
2	2	0.05	0.10
3	3	0.10	0.15
4	4	0.15	0.20
5	5	0.20	0.25
6	6	0.25	0.30
7	7	0.30	0.35
8	8	0.35	0.40
9	9	0.40	0.45
10	10	0.45	0.50
11	11	0.50	0.55
12	12	0.55	0.60
13	13	0.60	0.65
14	14	0.65	0.70
15	15	0.70	0.75
16	16	0.75	0.80
17	17	0.80	0.85
18	18	0.85	0.90
19	19	0.90	0.95
20	20	0.95	1.00

Replicate/
Code No. _____

Sampled by JS

[illegible][illegible]

Well Casing Volumes

Gallons/Foot 1" = 0.04

$$1.5'' = 0.09$$
$$2.5'' = 0.26$$
$$3.5'' = 0.50$$
$$6'' = 1.47$$
 $1.25'' = 0.06$ $2'' = 0.16$
$$3'' = 0.37$$
$$4^n = 0.65$$

Well Information

Well Location: Road side

Condition of Well: good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure:	Yes	/	No
---------------------------	-----	---	----

Key Number To Well:

$$PID = 0.0$$

Page 1 of 1

Well ID

MW-02/

Date _____

5/21/19

Project Name/Location GE Nishanur

Weather

505, sum

Measuring Pt.	TIC
Description	

Screen
Setting (ft-bmp)

Casing Diameter (in.) 2

Well Material PVC
SS

Static Water
Level (ft-bmp) 4.15

Total Depth (ft-bmp) 22.32

Water Column/
Gallons in Well 18.17 / 2.91

MP Elevation

Pump Intake (ft-bmp)

Purge Method:

Sample Method *barter*

Pump On/Off

Volumes Purged

Centrifugal _____
Submersible _____
Other _____

Sample Tii Label

Replicate/

Start

Code No. _____

End

Sampled by 

[illegible][illegible]

Gallons/Foot 1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Location:	In road	Well Locked at Arrival:	Yes	/	No
Condition of Well:	good	Well Locked at Departure:	Yes	/	No
Well Completion:	Flush Mount / Stick Up	Key Number To Well:			

$\text{PID} = 0.0$

GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. _____ Well ID THM-12 Date 5/21/19
 Project Name/Location GE N. Shafayana Weather 50s, sun
 Measuring Pt. TWC Screen Setting (ft-bmp) — Casing Diameter (in.) 2 Well Material ☒ PVC ☐ SS
 Static Water Level (ft-bmp) 6.56 Total Depth (ft-bmp) 54.98 Water Column/ Gallons in Well 48.42 / 7.75
 MP Elevation — Pump Intake (ft-bmp) — Purge Method: _____ Sample Method bauler
 Pump On/Off — Volumes Purged — Centrifugal _____ Submersible _____ Other _____
 Sample Tti Label _____ Replicate/ Code No. _____
 Start _____ End _____ Sampled by JS

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
<u>1150</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>7.42</u>	<u>0.64</u>	<u>2.9</u>	<u>12.22</u>	<u>12.69</u>	<u>89</u>	<u>clear</u>	<u>none</u>

Constituents Sampled	Container	Number	Preservative

Well Casing Volumes
 Gallons/Foot 1" = 0.04 1.5" = 0.09 2.5" = 0.26 3.5" = 0.50 6" = 1.47
 1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65

Well Information
 Well Location: Active landfill Well Locked at Arrival: ☒ Yes / ☐ No
 Condition of Well: good Well Locked at Departure: ☒ Yes / ☐ No
 Well Completion: Flush Mount / Stick Up Key Number To Well: —

PID = 0.0

GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. _____

Well ID MW-7

Date 5/21/19

Project Name/Location GE N. Shaguna

Weather 50s, sun

Measuring Pt. TIC
Description _____

Screen Setting (ft-bmp) —

Casing Diameter (in.) 2

Well Material X PVC
SS

Static Water Level (ft-bmp) 7.06

Total Depth (ft-bmp) 25.1

Water Column/ Gallons in Well 18.04 / 2.89

MP Elevation —

Pump Intake (ft-bmp) —

Purge Method: _____

Sample Method Bailer

Pump On/Off —

Volumes Purged —

Centrifugal
Submersible
Other _____

Sample Tin Label
Start _____
End _____

Replicate/
Code No. _____

Sampled by JS

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
<u>1220</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>6.80</u>	<u>4.73</u>	<u>152</u>	<u>11.67</u>	<u>12.75</u>	<u>122</u>	<u>cloudy</u>	<u>none</u>

Constituents Sampled	Container	Number	Preservative
<u>X</u>			

Well Casing Volumes				
Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
				6" = 1.47

Well Information		Well Locked at Arrival:	
Well Location:	<u>downward off main roof</u>	Yes	/ <u>No</u>
Condition of Well:	<u>good</u>	Well Locked at Departure:	Yes / <u>No</u>
Well Completion:	<u>Flush Mount</u> / <u>Stick Up</u>	Key Number To Well:	

PTD = 0.0

APPENDIX B

November 2019 Field Forms



Instrument Calibration Log



Project Name: GE Niskayuna
 Project Number: AP0132 01, 1000
 Calibrating Personnel: A. Gibson
 Time of Calibration: 0805
 Weather Conditions: 34°F, rainy
 Barometric Pressure: 29.67 mmHg

Date: 11/20/19

CALIBRANT	INSTRUMENT	INITIAL READING	VALUE ENTERED	FINAL READING	TIME	TEMP
pH 7.00	Horiba U-50	—	—	—	0805	9.86°C
pH 4.01	↓	4.03	4.00	4.00	↓	↓
Conductivity (<u>ms/cm</u>)	↓	4.50	4.49	4.53	↓	↓
Turbidity (<u>1.0 NTU</u>)	↓	0.0	0	0.0	↓	↓
Turbidity (<u>10.0 NTU</u>)	↓	—	—	—	↓	↓
DO (mg/L)	↓	11.30	—	12.69	↓	↓
DO%	↓	—	—	—	↓	↓
ORP (mV)	↓	325	—	328	↓	↓
Isobutylene (ppm)	Mhi; Rae 2000	100.1	100	100.0	0810	34°F
Fresh air	↓	0.0	0.0	0.0	↓	↓

Notes: Horiba S/N: 21165/24743

Instrument Calibration Log



Project Name: GE Niskayuna
 Project Number: AP03201,1000
 Calibrating Personnel: A. Gibson
 Time of Calibration: 08:30
 Weather Conditions: 62°F, 28°F, partly cloudy
 Barometric Pressure: 29.91 in Hg

Date: 11/21/19

CALIBRANT	INSTRUMENT	INITIAL READING	VALUE ENTERED	FINAL READING	TIME	TEMP
pH 7.00	<u>Horiba H-50</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>0730</u>	<u>6.14°C</u>
pH 4.00	<u> </u>	<u>3.91</u>	<u>4.00</u>	<u>3.99</u>	<u> </u>	<u> </u>
Conductivity (<u>µS/cm</u>)	<u> </u>	<u>4.45</u>	<u>4.49</u>	<u>4.49</u>	<u> </u>	<u> </u>
Turbidity (<u>4.0</u> NTU)	<u> </u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u> </u>	<u> </u>
Turbidity (<u>10.0</u> NTU)	<u> </u>	<u>—</u>	<u>—</u>	<u>—</u>	<u> </u>	<u> </u>
DO (mg/L)	<u> </u>	<u>11.03</u>	<u>—</u>	<u>11.23</u>	<u> </u>	<u> </u>
DO%	<u> </u>	<u>—</u>	<u>—</u>	<u>—</u>	<u> </u>	<u> </u>
ORP (mV)	<u> </u>	<u>321</u>	<u>—</u>	<u>322</u>	<u> </u>	<u> </u>
Isobutylene (PPM)	<u>MIRAE 2000</u>	<u>99.7</u>	<u>100.0</u>	<u>100.1</u>	<u> </u>	<u> </u>
Fresh Air	<u> </u>	<u>0.0</u>	<u>0</u>	<u>0.0</u>	<u> </u>	<u> </u>

Notes: Horiba S/N: 21165/24743



ARCADIS

Groundwater Sampling Form

Project No.

AP 913201/000

Well ID

TH M-12

Date

Page 1 of 1
11/20/19 - 11/21/19

Project Name/Location

GEMiskayma/Global Research Facility

Measuring Pt.
Description

TIC

Screen

Setting (ft-bmp)

-

Casing

Diameter (in.)

2

Well Material

☒ PVC
☐ SS
☐ Other

Total Depth (ft-bmp)

54.39

Static Water
Level (ft-bmp)

6.96

Water Column in Well

47.43

Gallons in Well

2.73

Calc. Gallons
Purged

12

Pump Intake (ft-
bmp)

-

Purge Method:

Centrifugal
Submersible
Disp. Bailer ☒
OtherSample
Method

Bailer

Gallons Purged

MP Elevation

-

Pump On/Off

1047/1000

Sample Time: Label

9944

Replicate/
Code No.

-

Sampled by

AG

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1048	0			1	7.20	0.653	211	0.94	9.27	-161	cloudy	egg-like
1053	5			2	7.26	0.591	41.7	1.04	10.34	-167	"	"
1058	10			4	7.29	0.585	34.2	0.04	9.71	-177	"	"
1102	34			6	7.38	0.572	23.7	0.33	9.33	-155	"	"
1107	39			8	7.39	0.574	32.6	0.00	8.90	-126	"	"
1111	43			10	7.38	0.572	27.9	1.40	8.82	-94	"	"
1115	47			12	7.37	0.574	137	0.92	8.99	-83	"	"
11/21/19 0943			7.19	-	7.50	0.567	0.0	-	8.37	-138	clear	none

Constituents Sampled

Metals, Dissolved (Bartma)
Total Phenols, TOC
Chloride, TDS

Container

250mL Poly
250mL Amber
500mL Poly

Number

1
1
1

Preservative

HNO₃, field filtered
H₂SO₄
none

Well Information

Well Location:

Inside of fence NW of environmental control facility

Well Locked at Arrival:

Yes

/

No

Condition of Well:

Good

Well Locked at Departure:

Yes

/

No

Well Completion:

Flush Mount

/

Stick Up

Key Number To Well:

NOTES:

TIC - Top of sand casing
PT 220.0ppm
Soft bottom

Well Casing Volumes

Gallons/Foot

1" = 0.04
1.25" = 0.061.5" = 0.09
2" = 0.162.5" = 0.26
3" = 0.373.5" = 0.50
4" = 0.65

6" = 1.47



ARCADIS

Groundwater Sampling Form

Project No. AP013201.1000 Well ID MW-1 Page 1 of 1

Project Name/Location GE Miskayana / Global Research Center Date 11/20/19

Measuring Pt. Description TIC Screen Setting (ft-bmp) - Casing Diameter (in.) 2 Weather 32°F Snowing, 30.00"

Static Water Level (ft-bmp) 7.42 Water Column in Well 12.43 Well Material ☒ PVC ☐ SS ☐ Other

Total Depth (ft-bmp) 19.85 Gallons in Well 2.03

Calc. Gallons Purged 5 Pump Intake (ft-bmp) - Purge Method: Centrifugal ☐ Submersible ☐ Disp. Bailer ☒ Other ☐

Gallons Purged 5 MP Elevation - Sample Method Bailer

Sample Time: Label 1539 Replicate/Code No. - Pump On/Off 0853/1539

Sampled by AG

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0854	1			1.1	6.58	9.433	2.4	10.94	12.24	250	clear	none
0857	4			1	6.97	9.459	16.2	25.5	12.42	240	clear	none
0900	7			2	7.07	9.459	13.0	23.3	12.44	235	clear	none
0905	12			3	7.15	9.459	18.2	23.3	12.54	230	cloudy	none
0908	15			4	7.21	9.468	23.9	1.92	12.69	225	cloudy	none
0913	20			5	7.21	9.487	54.5	1.80	12.68	226	cloudy brown	none
Well dry @ 0914												
1538			7.80	-	7.46	9.562	15.3	3.24	9.98	64	clear	none

Constituents Sampled	Container	Number	Preservative
Metals, Dissolved (Barium)	250mL poly	1	HNO ₃ field filtered
Total Phenols, TOC	250mL Amber	1	H ₂ SO ₄
Chloride, TDS	500mL poly	1	None

Well Information

Well Location: West side of road first well Well Locked at Arrival: ☒ Yes / ☐ No

Condition of Well: Good Well Locked at Departure: ☒ Yes / ☐ No

Well Completion: Flush Mount / Stick Up Key Number To Well: -

NOTES: TIC: Top of inner casing

P.T.D. 0.0 ppm
from bottom

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	



ARCADIS

Groundwater Sampling Form

Project No. AP01301.1000Well ID MW-2Page 1 of 1Date 11/20/19Project Name/Location GE/Niskayuna Global Research CenterWeather 32°F SnowingMeasuring Pt.
Description Screen
Setting (ft-bmp) Casing
Diameter (in.) 2Well Material ☒ PVC
☐ SS
☐ OtherTotal Depth (ft-bmp) 19.88Static Water
Level (ft-bmp) 8.11Water Column in Well 11.77'Gallons in Well 1.92Calc. Gallons
Purged 6Pump Intake (ft-
bmp)

Purge Method:

Centrifugal
Submersible Sample
Method BailerGallons Purged 6MP Elevation Disp. Bailer ☒Pump On/Off 11/4/1230Sample Time: Label 1205Replicate/
Code No. Other Sampled by AG

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1145	1			Initial	7.66	0.706	5.1	2.37	10.41	-34	clear	none
1148	4			1	7.51	0.949	447	0.44	11.43	-81	grey	none
1152	8			2	7.57	1.06	686	0.30	11.69	-117	"	"
1154	10			3	7.57	1.04	1009	0.00	12.09	-134	"	"
1156	12			4	7.57	1.27	981	0.00	12.09	-156	"	"
1158	14			5	7.60	1.31	1000	0.00	12.19	-161	"	"
1200	16			6	7.66	1.63	1000	0.00	12.21	-150	"	"

Constituents Sampled

Metals, Dissolved (Barium)
Total phenols, TOC
Chloride, TDS

Container

250mL Poly
250mL Amber
500mL Poly

Number

1
1
1

Preservative

HNO₃, field filtered
H₂SO₄
None

Well Information

Well Location: <u>west side of road 2nd well</u>	Well Locked at Arrival: ☒ Yes / ☐ No
Condition of Well: <u>Good</u>	Well Locked at Departure: ☒ Yes / ☐ No
Well Completion: <u>Flush Mount</u> / ☒ <u>Stick Up</u>	Key Number To Well: <u> </u>

NOTES: TIC: Top of inner casing
PID: 0.0 ppm
hard bottom

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	



ARCADIS

Groundwater Sampling Form

Project No. AP013201, 1000

Well ID

MW-4Page 1 of 1Project Name/Location GE Niskayuna / Global Research Center

Date

11/20/19

Weather

34°F cloudyMeasuring Pt.
DescriptionTIC

Screen

Setting (ft-bmp)

—

Casing

Diameter (in.)

2

Well Material

☒ PVC☐ SS☐ Other

Total Depth (ft-bmp)

22.32

Static Water

Level (ft-bmp)

3.86

Water Column in Well

18.46

Gallons in Well

3.01Calc. Gallons
Purged9Pump Intake (ft-
bmp)—

Purge Method:

☐ Centrifugal☐ Submersible☒ Disp. Bailer☐ OtherSample
MethodBailer

Gallons Purged

9

MP Elevation

—

Pump On/Off

248/1320

Sample Time: Label

B10Replicate/
Code No.Dup-20191120

Sampled by

AG

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1247	1			Initial	7.53	1.94	70.7	5.26	9.56	33	1+ brown	none
1252	6			2	7.41	2.01	961	5.20	9.86	38	11	11
1257	11			4	7.37	2.06	704	5.41	9.96	43	12	12
1301	15			6	7.37	2.12	604	5.12	9.93	47	11	11
1306	20			8	7.37	2.14	483	4.73	9.97	51	11	11
1309	23			9	7.32	2.17	283	5.21	9.17	79	11	11

Constituents Sampled

Metals Dissolved (Barium)Total phenols, TOCChloride, TDS

Container

250 mL Poly250 mL Amber500 mL Poly

Number

444

Preservative

HNO₃, Field FilteredH₂SO₄None

Well Information

Well Location:

In Road North West of electrical substation

Well Locked at Arrival:

☒ Yes

/

☐ No

Condition of Well:

Good

Well Locked at Departure:

☒ Yes

/

☐ No

Well Completion:

Flush MountCheck Up

Key Number To Well:

NOTES:

MS+MSD collected here Dup-20191120 collected hereTIC: Top of inner casingPipe 0.0ppmSoft bottom

Well Casing Volumes

Gallons/Foot

1" = 0.04

1.5" = 0.09

2.5" = 0.26

3.5" = 0.50

6" = 1.47

1.25" = 0.06

2" = 0.16

3" = 0.37

4" = 0.65



ARCADIS

Groundwater Sampling Form

Project No.

A-P01329 L.1000

Well ID

MW-5

Page 1 of 1

Date

11/20/19

Project Name/Location

GE Niskayuna / Global Research Center

Weather

33°F cloudy

Measuring Pt.
Description

TIC

Screen

Setting (ft-bmp)

-

Casing

Diameter (in.)

2

Well Material

X PVC
SS
Other

Total Depth (ft-bmp)

43.32

Static Water
Level (ft-bmp)

5.25

Water Column in Well

38.07

Gallons in Well

6.21

Calc. Gallons
Purged

18

Pump Intake (ft-
bmp)

-

Purge Method:

Centrifugal
Submersible
Disp. Bailer X
OtherSample
Method

Bailer

Gallons Purged

18

MP Elevation

-

Pump On/Off

1349/1500

Sample Time: Label

1437

Replicate/
Code No.

-

Sampled by

AG

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (umhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1350	1	1	1	1	7.40	6.55	98.6	1.83	11.30	68	14.90	50.00
1356	7	1	1	2	7.31	7.48	466	3.31	13.19	61	11	11
1401	12	1	1	4	7.33	7.59	1000	0.60	13.68	55	11	11
1406	17	1	1	6	7.37	7.50	1000	0.21	13.46	47	11	11
1411	22	1	1	8	7.41	7.37	618	0.38	12.68	36	11	11
1416	27	1	1	10	7.35	7.30	313	0.90	11.46	23	11	11
1421	32	1	1	12	7.44	7.39	836	0.00	11.18	12	11	11
1426	37	1	1	14	7.34	7.40	1000	0.09	11.02	35	11	11
1431	42	1	1	16	7.32	7.42	1000	0.00	11.06	-41		
1436	47	1	1	18	7.30	7.40	1000	0.00	11.04	-55		

Constituents Sampled

Metals Dissolved (Barium)

Container

250mL Poly

Number

1

Preservative

HNO₃, field filtered

Total Phenols, TOC

250mL Amber

1

H₂SO₄

Chloride, TDS

500mL Poly

1

None

Well Information

Well Location:

In Road East of Environmental Control Facility, south of electrical sub station

Well Locked at Arrival:

Yes

/

No

Condition of Well:

Good

Well Locked at Departure:

Yes

/

No

Well Completion:

Flush Mount

/ Stick Up

Key Number To Well:

NOTES:

TIC: Top of inner casing

CIP: 0.0ppm

Soft bottom

Well Casing Volumes

Gallons/Foot

1" = 0.04

1.5" = 0.09

2.5" = 0.26

3.5" = 0.50

6" = 1.47

1.25" = 0.06

2" = 0.16

3" = 0.37

4" = 0.65



ARCADIS

Groundwater Sampling Form

Project No.

AP013201.1009

Well ID

MW-7

Page 1 of 1

Date

11/20/19

Project Name/Location

GENskayna Global Research Center

Weather

34°F cloudy

Measuring Pt.
Description

TIC

Screen

Setting (ft-bmp)

-

Casing

Diameter (in.)

2

Well Material

☒ PVC☐ SS☐ Other

Total Depth (ft-bmp)

25.10

Static Water
Level (ft-bmp)

7.26

Water Column in Well

17.84

Gallons in Well

2.91

Calc. Gallons
Purged

5

Pump Intake (ft-
bmp)

-

Purge Method:

Centrifugal

Submersible

Disp. Bailer

Other

Sample

Method

Bailer

Pump On/Off

0927/0928

Sample Time: Label

1510

Replicate/
Code No.

-

Sampled by

AG

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0928	0			1	6.94	3.92	402	1.53	12.42	231	cloudy	none
0932	4			1	6.92	3.64	574	0.56	12.61	214	cloudy	none
0935	7			2	6.85	3.82	1000	0.51	13.15	152	1	none
0938	10			3	7.01	3.64	1000	0.69	13.22	182	9/24	none
0941	13			4	7.13	3.83	1000	1.25	12.74	15	11	11
0945	20			5	7.41	4.97	1000	2.69	11.80	-43	11	11
1509	014 @ 0949		9.23	-	7.62	4.53	131	2.70	10.93	77	11	11

Constituents Sampled

Metals, Dissolved (Barium)
Total phenols, TOC
Chloride, TDS

Container

250mL Poly
250mL Amber
500mL Poly

Number

1
1
1

Preservative

HNO₃, Field Sterilized
H₂SO₄
None

Well Information

Well Location:

In dirt road south of environmental control facility

Well Locked at Arrival:

☒ Yes

/ No

Condition of Well:

Good

Well Locked at Departure:

☒ Yes

/ No

Well Completion:

Flush Mount

/ Stick Up 46

Key Number To Well:

NOTES:

TIC: Top of inner casing
PID: 0.0ppm
hard bottom

Well Casing Volumes

Gallons/Foot

1" = 0.04

1.5" = 0.09

2.5" = 0.26

3.5" = 0.50

6" = 1.47

1.25" = 0.06

2" = 0.16

3" = 0.37

4" = 0.65

SITE INSPECTION FORM
GE GLOBAL RESEARCH CENTER
INACTIVE CHEMICAL LANDFILL

Page 1 of 1

EVALUATORS: AGibson
[Signature]

DATE OF INSPECTION: 11/21/19

A. SECURITY & ACCESS (Annually)

1. Site access gate
2. Fencing
3. Signs posted - site perimeter
4. Main access road

Adequate	Needs Attention
✓	
✓	
✓	
✓	

Note evidence of unauthorized entry:

None noted
[Signature]

B. COVER AND VEGETATION (Annually)

1. Top slope (good drainage, no erosion)
2. Top slope (vegetation quality & density)
3. Side slopes (good drainage, small erosion)
4. Side slopes (vegetation quality & density)

Adequate	Needs Attention
✓	
✓	
✓	
✓	

Note evidence of leachate seeps:

No evidence noted
[Signature]

C. DRAINAGE (Annually)

1. North Diversion Channel
2. West Diversion Channel
3. Upslope Diversion Channel (inst. 2011)

Adequate	Needs Attention
✓	
✓	
✓	

D. COMMENTS: (Reference Item No.):

Item A2: The fence condition has not changed significantly
since 2018. The fence continues to function as intended.

APPENDIX C

November 2019 Laboratory Analytical Report





January 08, 2020

Service Request No:R1911562

Mr. Doug Weeks
ARCADIS U.S., Inc.
855 Route 146, Ste 210
Clifton Park, NY 12065

Laboratory Results for: GE Niskayuna

Dear Mr.Weeks,

Enclosed are the results of the sample(s) submitted to our laboratory November 22, 2019
For your reference, these analyses have been assigned our service request number **R1911562**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Jessica
Steigerwald

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: ARCADIS U.S., Inc.
Project: GE Niskayuna
Sample Matrix: Water

Service Request: R1911562
Date Received: 11/22/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Twelve water samples were received for analysis at ALS Environmental on 11/22/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

Method 9066, 12/02/2019: The Continuing Calibration Blank (CCB) contained a low level of one or more analytes at concentrations above the Method Reporting Limit (MRL), but less than ten times the concentration in the associated samples. Contamination is deemed insignificant relative to the reported samples and the data is reported with no further corrective action required.

Method 9066, 12/02/2019: The Method Blank contained a low level of one or more analytes at concentrations above the Method Reporting Limit (MRL). Since there were no detections of the analyte(s) in the associated field samples, the data quality was not significantly affected and no further corrective action was taken.

Volatiles by GC/MS:

Method 8260C, 11/27/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

01/08/2020 This report was revised as the client needed lower detection limits.

A handwritten signature in black ink, appearing to read "Samanta".

Approved by _____

Date 01/08/2020



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000

Service Request:R1911562

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1911562-001	MW-2_20191120	11/20/2019	1205
R1911562-002	MW-4_20191120	11/20/2019	1310
R1911562-003	MW-5_20191120	11/20/2019	1437
R1911562-004	MW-7_20191120	11/20/2019	1510
R1911562-005	MW-1_20191120	11/20/2019	1539
R1911562-006	MW-3_20191121	11/21/2019	0840
R1911562-007	THM-12_20191121	11/21/2019	0944
R1911562-008	DUP_20191120	11/20/2019	0000
R1911562-009	FB_20191120	11/20/2019	0745
R1911562-010	FB_20191121	11/21/2019	0735
R1911562-011	TB_20191120	11/20/2019	0000
R1911562-012	TB_20191121	11/21/2019	0000



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

59164

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

PAGE 1 OF 2

Project Name GE Niskayuna Global Research Center		Project Number AP0132 01.1000		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																																				
Project Manager Doug Weeks		Report CC		PRESERVATIVE																																				
Company/Address 855 Route 146, Suite 210 Clifton Park, NY 12065 / Arcadis U.S., Inc.				<table border="1"> <tr> <td>NUMBER OF CONTAINERS</td> <td>GC/MS VOCs • 8260 • 824 • CLP</td> <td>GC/MS SVOCs • 8270 • 825</td> <td>GC VOCs • 8021 • 801/802</td> <td>PESTICIDES • 8081 • 808</td> <td>PCBs • 8082 • 808</td> <td>METALS, TOTAL (List in comments below)</td> <td>METALS, DISSOLVED (List in comments below)</td> <td>Total Phenols, Toc Chloride, IDS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>																NUMBER OF CONTAINERS	GC/MS VOCs • 8260 • 824 • CLP	GC/MS SVOCs • 8270 • 825	GC VOCs • 8021 • 801/802	PESTICIDES • 8081 • 808	PCBs • 8082 • 808	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Total Phenols, Toc Chloride, IDS												
NUMBER OF CONTAINERS	GC/MS VOCs • 8260 • 824 • CLP	GC/MS SVOCs • 8270 • 825	GC VOCs • 8021 • 801/802	PESTICIDES • 8081 • 808	PCBs • 8082 • 808	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Total Phenols, Toc Chloride, IDS																																
Phone # (518) 250-7300		Email Doug.weeks@arcadis.com		<table border="1"> <tr> <td>PRESERVATIVE KEY</td> <td>0. NONE</td> <td>1. HCL</td> <td>2. HNO₃</td> <td>3. H₂SO₄</td> <td>4. NaOH</td> <td>5. Zn. Acetate</td> <td>6. MeOH</td> <td>7. NaHSO₄</td> <td>8. Other _____</td> </tr> </table>																PRESERVATIVE KEY	0. NONE	1. HCL	2. HNO ₃	3. H ₂ SO ₄	4. NaOH	5. Zn. Acetate	6. MeOH	7. NaHSO ₄	8. Other _____											
PRESERVATIVE KEY	0. NONE	1. HCL	2. HNO ₃	3. H ₂ SO ₄	4. NaOH	5. Zn. Acetate	6. MeOH	7. NaHSO ₄	8. Other _____																															
Sampler's Signature <i>Andrew Gibson</i>		Sampler's Printed Name Andrew Gibson		REMARKS/ ALTERNATE DESCRIPTION																																				
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE TIME		MATRIX	6	3																																		
MW-2-20191120		11/20/19	1205	GW	6	3																																		
MW-4-20191120		11/20/19	1310	GW	6	3																																		
MW-5-20191120		11/20/19	1437	GW	6	3																																		
MW-7-20191120		11/20/19	1510	GW	6	3																																		
MW-1-20191120		11/20/19	1539	GW	6	3																																		
MW-3-20191121		11/21/19	0840	GW	6	3																																		
THM-12-20191121		11/21/19	0944	GW	6	3																																		
MW-4-20191120 MS/MSD		11/20/19	1310	GW	12	6																																		
Dwp-20191120		11/20/19	—	GW	6	3																																		
FB-20191120		11/20/19	0745	WW	6	3																																		
FB-20191121		11/21/19	0735	WW	6	3																																		
SPECIAL INSTRUCTIONS/COMMENTS Metals Metals, Dissolved for Barium only (Field Filtered)					TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day ☒ Standard (10 business days-No Surcharge) REQUESTED REPORT DATE					REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data Edata Yes No					INVOICE INFORMATION PO # BILL TO:																									
See OAPP ☐																																								
STATE WHERE SAMPLES WERE COLLECTED																																								
RELINQUISHED BY					RECEIVED BY					RELINQUISHED BY					RECEIVED BY																									
Signature <i>Andrew Gibson</i>					Signature <i>Dina Avers</i>					Signature <i>Gregory O. Esmerian</i>					Signature																									
Printed Name Andrew Gibson					Printed Name Dina Avers					Printed Name Gregory O. Esmerian					Printed Name																									
Firm Arcadis					Firm ALS					Firm ALS					Firm																									
Date/Time 11/21/19/1127					Date/Time 11/21/19/1127					Date/Time 11/21/19/1500					Date/Time 11/22/19/09:20																									

[illegible]



Cooler Receipt and Preservation Check Form

R1911562

5

ARCADIS U.S., Inc.
GE Niskayuna

Project/Client

Arcadis

Folder Number

R1911562

Cooler received on

11-22-19

by:

KJ/G

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	☒ Y ☐ N
2	Custody papers properly completed (ink, signed)?	☒ Y ☐ N
3	Did all bottles arrive in good condition (unbroken)?	☒ Y ☐ N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	☒ Y ☐ N

5a	Perchlorate samples have required headspace?	Y ☐ N ☒ NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	☒ Y ☐ N ☐ NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as:	Bulk Encore 5035set <u>NA</u>

8. Temperature Readings

Date: 11-22-19

Time: 09:35

ID: IR#7

IR#10

From: Temp Blank

Sample Bottle

Observed Temp (°C)	1.1	1.8					
Within 0-6°C?	☒ Y ☐ N	☒ Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N
If <0°C, were samples frozen?	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by KJ/G on 11-22-19 at 09:41

5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/24/19 Time: 1:30 by: @

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES ☒ NO ☐
10. Did all bottle labels and tags agree with custody papers? YES ☒ NO ☐
11. Were correct containers used for the tests indicated? YES ☒ NO ☐
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES ☒ NO ☐
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated ☒ N/A ☐ N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	230018	HNO ₃	☒		check covered					
≤2		H ₂ SO ₄	☒		R260002C	5/20				
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522	☒		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers:

Albany

Explain all Discrepancies/ Other Comments:

*Trip Blanks lot 3 vials

MW-3
metals } blank
bottle

HPRD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: @

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000

Service Request: R1911562

Sample Name: MW-2_20191120
Lab Code: R1911562-001
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

Sample Name: MW-4_20191120
Lab Code: R1911562-002
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

Sample Name: MW-5_20191120
Lab Code: R1911562-003
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000

Service Request: R1911562

Sample Name: MW-7_20191120
Lab Code: R1911562-004
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

Sample Name: MW-1_20191120
Lab Code: R1911562-005
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

Sample Name: MW-3_20191121
Lab Code: R1911562-006
Sample Matrix: Water

Date Collected: 11/21/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000

Service Request: R1911562

Sample Name: THM-12_20191121
Lab Code: R1911562-007
Sample Matrix: Water

Date Collected: 11/21/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

Sample Name: DUP_20191120
Lab Code: R1911562-008
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

Sample Name: FB_20191120
Lab Code: R1911562-009
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066
SM 2540 C-1997(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN
KRUEST
KWONG
BBOWE
GKNIGHT
SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000

Service Request: R1911562

Sample Name: FB_20191121
Lab Code: R1911562-010
Sample Matrix: Water

Date Collected: 11/21/19
Date Received: 11/22/19

Analysis Method

6010C
8260C
9056A
9066

SM 2540 C-1997(2011)

SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By

KMCLAEN

KRUEST

KWONG

BBOWE

GKNIGHT

SMEDBURY

Sample Name: TB_20191120
Lab Code: R1911562-011
Sample Matrix: Water

Date Collected: 11/20/19
Date Received: 11/22/19

Analysis Method

8260C

Extracted/Digested By

Analyzed By

KRUEST

Sample Name: TB_20191121
Lab Code: R1911562-012
Sample Matrix: Water

Date Collected: 11/21/19
Date Received: 11/22/19

Analysis Method

8260C

Extracted/Digested By

Analyzed By

KRUEST



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 12:05
Date Received: 11/22/19 09:20

Sample Name: MW-2_20191120
Lab Code: R1911562-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 17:10	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 17:10	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 17:10	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 17:10	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 17:10	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:10	
1,2-Dichloroethane	1.2	1.0	1	11/27/19 17:10	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 17:10	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:10	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:10	
Acrolein	5.0 U	5.0	1	11/27/19 17:10	
Acrylonitrile	5.0 U	5.0	1	11/27/19 17:10	
Benzene	2.0	1.0	1	11/27/19 17:10	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 17:10	
Bromoform	1.0 U	1.0	1	11/27/19 17:10	
Bromomethane	1.0 U	1.0	1	11/27/19 17:10	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 17:10	
Chlorobenzene	1.0 U	1.0	1	11/27/19 17:10	
Chloroethane	1.0 U	1.0	1	11/27/19 17:10	
Chloroform	1.0 U	1.0	1	11/27/19 17:10	
Chloromethane	1.0 U	1.0	1	11/27/19 17:10	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 17:10	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 17:10	
Dichloromethane	1.0 U	1.0	1	11/27/19 17:10	
Ethylbenzene	1.0 U	1.0	1	11/27/19 17:10	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 17:10	
Toluene	1.0 U	1.0	1	11/27/19 17:10	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 17:10	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 17:10	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 17:10	
Xylenes, Total	3.0 U	3.0	1	11/27/19 17:10	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 17:10	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 17:10	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 17:10	
o-Xylene	1.0 U	1.0	1	11/27/19 17:10	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 17:10	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 17:10	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 12:05
Date Received: 11/22/19 09:20

Sample Name: MW-2_20191120
Lab Code: R1911562-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	11/27/19 17:10	
Dibromofluoromethane	95	89 - 119	11/27/19 17:10	
Toluene-d8	100	87 - 121	11/27/19 17:10	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 13:10
Date Received: 11/22/19 09:20

Sample Name: MW-4_20191120
Lab Code: R1911562-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 19:42	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 19:42	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 19:42	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 19:42	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 19:42	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 19:42	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 19:42	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 19:42	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 19:42	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 19:42	
Acrolein	5.0 U	5.0	1	11/27/19 19:42	
Acrylonitrile	5.0 U	5.0	1	11/27/19 19:42	
Benzene	1.0 U	1.0	1	11/27/19 19:42	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 19:42	
Bromoform	1.0 U	1.0	1	11/27/19 19:42	
Bromomethane	1.0 U	1.0	1	11/27/19 19:42	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 19:42	
Chlorobenzene	1.0 U	1.0	1	11/27/19 19:42	
Chloroethane	1.0 U	1.0	1	11/27/19 19:42	
Chloroform	1.5	1.0	1	11/27/19 19:42	
Chloromethane	1.0 U	1.0	1	11/27/19 19:42	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 19:42	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 19:42	
Dichloromethane	1.0 U	1.0	1	11/27/19 19:42	
Ethylbenzene	1.0 U	1.0	1	11/27/19 19:42	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 19:42	
Toluene	1.0 U	1.0	1	11/27/19 19:42	
Trichloroethene (TCE)	7.2	1.0	1	11/27/19 19:42	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 19:42	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 19:42	
Xylenes, Total	3.0 U	3.0	1	11/27/19 19:42	
cis-1,2-Dichloroethene	8.4	1.0	1	11/27/19 19:42	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 19:42	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 19:42	
o-Xylene	1.0 U	1.0	1	11/27/19 19:42	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 19:42	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 19:42	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 13:10
Date Received: 11/22/19 09:20

Sample Name: MW-4_20191120
Lab Code: R1911562-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	11/27/19 19:42	
Dibromofluoromethane	91	89 - 119	11/27/19 19:42	
Toluene-d8	97	87 - 121	11/27/19 19:42	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 14:37
Date Received: 11/22/19 09:20

Sample Name: MW-5_20191120
Lab Code: R1911562-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 17:32	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 17:32	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 17:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 17:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 17:32	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:32	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 17:32	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 17:32	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:32	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:32	
Acrolein	5.0 U	5.0	1	11/27/19 17:32	
Acrylonitrile	5.0 U	5.0	1	11/27/19 17:32	
Benzene	1.0 U	1.0	1	11/27/19 17:32	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 17:32	
Bromoform	1.0 U	1.0	1	11/27/19 17:32	
Bromomethane	1.0 U	1.0	1	11/27/19 17:32	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 17:32	
Chlorobenzene	1.0 U	1.0	1	11/27/19 17:32	
Chloroethane	1.0 U	1.0	1	11/27/19 17:32	
Chloroform	1.0 U	1.0	1	11/27/19 17:32	
Chloromethane	1.0 U	1.0	1	11/27/19 17:32	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 17:32	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 17:32	
Dichloromethane	1.0 U	1.0	1	11/27/19 17:32	
Ethylbenzene	1.0 U	1.0	1	11/27/19 17:32	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 17:32	
Toluene	1.0 U	1.0	1	11/27/19 17:32	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 17:32	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 17:32	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 17:32	
Xylenes, Total	3.0 U	3.0	1	11/27/19 17:32	
cis-1,2-Dichloroethene	3.4	1.0	1	11/27/19 17:32	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 17:32	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 17:32	
o-Xylene	1.0 U	1.0	1	11/27/19 17:32	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 17:32	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 17:32	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 14:37
Date Received: 11/22/19 09:20

Sample Name: MW-5_20191120
Lab Code: R1911562-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	11/27/19 17:32	
Dibromofluoromethane	96	89 - 119	11/27/19 17:32	
Toluene-d8	101	87 - 121	11/27/19 17:32	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 15:10
Date Received: 11/22/19 09:20

Sample Name: MW-7_20191120
Lab Code: R1911562-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 17:54	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 17:54	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 17:54	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 17:54	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 17:54	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:54	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 17:54	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 17:54	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:54	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 17:54	
Acrolein	5.0 U	5.0	1	11/27/19 17:54	
Acrylonitrile	5.0 U	5.0	1	11/27/19 17:54	
Benzene	1.0 U	1.0	1	11/27/19 17:54	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 17:54	
Bromoform	1.0 U	1.0	1	11/27/19 17:54	
Bromomethane	1.0 U	1.0	1	11/27/19 17:54	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 17:54	
Chlorobenzene	1.0 U	1.0	1	11/27/19 17:54	
Chloroethane	1.0 U	1.0	1	11/27/19 17:54	
Chloroform	1.0 U	1.0	1	11/27/19 17:54	
Chloromethane	1.0 U	1.0	1	11/27/19 17:54	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 17:54	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 17:54	
Dichloromethane	1.0 U	1.0	1	11/27/19 17:54	
Ethylbenzene	1.0 U	1.0	1	11/27/19 17:54	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 17:54	
Toluene	1.0 U	1.0	1	11/27/19 17:54	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 17:54	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 17:54	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 17:54	
Xylenes, Total	3.0 U	3.0	1	11/27/19 17:54	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 17:54	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 17:54	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 17:54	
o-Xylene	1.0 U	1.0	1	11/27/19 17:54	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 17:54	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 17:54	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 15:10
Date Received: 11/22/19 09:20

Sample Name: MW-7_20191120
Lab Code: R1911562-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	11/27/19 17:54	
Dibromofluoromethane	94	89 - 119	11/27/19 17:54	
Toluene-d8	100	87 - 121	11/27/19 17:54	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 15:39
Date Received: 11/22/19 09:20

Sample Name: MW-1_20191120
Lab Code: R1911562-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 18:15	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 18:15	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 18:15	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 18:15	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 18:15	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:15	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 18:15	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 18:15	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:15	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:15	
Acrolein	5.0 U	5.0	1	11/27/19 18:15	
Acrylonitrile	5.0 U	5.0	1	11/27/19 18:15	
Benzene	1.0 U	1.0	1	11/27/19 18:15	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 18:15	
Bromoform	1.0 U	1.0	1	11/27/19 18:15	
Bromomethane	1.0 U	1.0	1	11/27/19 18:15	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 18:15	
Chlorobenzene	1.0 U	1.0	1	11/27/19 18:15	
Chloroethane	1.0 U	1.0	1	11/27/19 18:15	
Chloroform	1.0 U	1.0	1	11/27/19 18:15	
Chloromethane	1.0 U	1.0	1	11/27/19 18:15	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 18:15	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 18:15	
Dichloromethane	1.0 U	1.0	1	11/27/19 18:15	
Ethylbenzene	1.0 U	1.0	1	11/27/19 18:15	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 18:15	
Toluene	1.0 U	1.0	1	11/27/19 18:15	
Trichloroethene (TCE)	1.4	1.0	1	11/27/19 18:15	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 18:15	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 18:15	
Xylenes, Total	3.0 U	3.0	1	11/27/19 18:15	
cis-1,2-Dichloroethene	1.3	1.0	1	11/27/19 18:15	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 18:15	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 18:15	
o-Xylene	1.0 U	1.0	1	11/27/19 18:15	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 18:15	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 18:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 15:39
Date Received: 11/22/19 09:20

Sample Name: MW-1_20191120
Lab Code: R1911562-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	11/27/19 18:15	
Dibromofluoromethane	94	89 - 119	11/27/19 18:15	
Toluene-d8	98	87 - 121	11/27/19 18:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 08:40
Date Received: 11/22/19 09:20

Sample Name: MW-3_20191121
Lab Code: R1911562-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 18:37	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 18:37	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 18:37	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 18:37	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 18:37	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:37	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 18:37	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 18:37	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:37	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:37	
Acrolein	5.0 U	5.0	1	11/27/19 18:37	
Acrylonitrile	5.0 U	5.0	1	11/27/19 18:37	
Benzene	1.0 U	1.0	1	11/27/19 18:37	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 18:37	
Bromoform	1.0 U	1.0	1	11/27/19 18:37	
Bromomethane	1.0 U	1.0	1	11/27/19 18:37	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 18:37	
Chlorobenzene	1.0 U	1.0	1	11/27/19 18:37	
Chloroethane	1.0 U	1.0	1	11/27/19 18:37	
Chloroform	1.0 U	1.0	1	11/27/19 18:37	
Chloromethane	1.0 U	1.0	1	11/27/19 18:37	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 18:37	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 18:37	
Dichloromethane	1.0 U	1.0	1	11/27/19 18:37	
Ethylbenzene	1.0 U	1.0	1	11/27/19 18:37	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 18:37	
Toluene	1.0 U	1.0	1	11/27/19 18:37	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 18:37	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 18:37	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 18:37	
Xylenes, Total	3.0 U	3.0	1	11/27/19 18:37	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 18:37	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 18:37	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 18:37	
o-Xylene	1.0 U	1.0	1	11/27/19 18:37	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 18:37	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 18:37	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 08:40
Date Received: 11/22/19 09:20

Sample Name: MW-3_20191121
Lab Code: R1911562-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	11/27/19 18:37	
Dibromofluoromethane	92	89 - 119	11/27/19 18:37	
Toluene-d8	99	87 - 121	11/27/19 18:37	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 09:44
Date Received: 11/22/19 09:20

Sample Name: THM-12_20191121
Lab Code: R1911562-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 18:59	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 18:59	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 18:59	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 18:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 18:59	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:59	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 18:59	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 18:59	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:59	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 18:59	
Acrolein	5.0 U	5.0	1	11/27/19 18:59	
Acrylonitrile	5.0 U	5.0	1	11/27/19 18:59	
Benzene	1.0 U	1.0	1	11/27/19 18:59	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 18:59	
Bromoform	1.0 U	1.0	1	11/27/19 18:59	
Bromomethane	1.0 U	1.0	1	11/27/19 18:59	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 18:59	
Chlorobenzene	1.0 U	1.0	1	11/27/19 18:59	
Chloroethane	1.0 U	1.0	1	11/27/19 18:59	
Chloroform	1.0 U	1.0	1	11/27/19 18:59	
Chloromethane	1.0 U	1.0	1	11/27/19 18:59	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 18:59	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 18:59	
Dichloromethane	1.0 U	1.0	1	11/27/19 18:59	
Ethylbenzene	1.0 U	1.0	1	11/27/19 18:59	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 18:59	
Toluene	1.0 U	1.0	1	11/27/19 18:59	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 18:59	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 18:59	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 18:59	
Xylenes, Total	3.0 U	3.0	1	11/27/19 18:59	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 18:59	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 18:59	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 18:59	
o-Xylene	1.0 U	1.0	1	11/27/19 18:59	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 18:59	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 18:59	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 09:44
Date Received: 11/22/19 09:20

Sample Name: THM-12_20191121
Lab Code: R1911562-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	11/27/19 18:59	
Dibromofluoromethane	96	89 - 119	11/27/19 18:59	
Toluene-d8	101	87 - 121	11/27/19 18:59	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 00:00
Date Received: 11/22/19 09:20

Sample Name: DUP_20191120
Lab Code: R1911562-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 19:21	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 19:21	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 19:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 19:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 19:21	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 19:21	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 19:21	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 19:21	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 19:21	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 19:21	
Acrolein	5.0 U	5.0	1	11/27/19 19:21	
Acrylonitrile	5.0 U	5.0	1	11/27/19 19:21	
Benzene	1.0 U	1.0	1	11/27/19 19:21	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 19:21	
Bromoform	1.0 U	1.0	1	11/27/19 19:21	
Bromomethane	1.0 U	1.0	1	11/27/19 19:21	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 19:21	
Chlorobenzene	1.0 U	1.0	1	11/27/19 19:21	
Chloroethane	1.0 U	1.0	1	11/27/19 19:21	
Chloroform	1.5	1.0	1	11/27/19 19:21	
Chloromethane	1.0 U	1.0	1	11/27/19 19:21	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 19:21	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 19:21	
Dichloromethane	1.0 U	1.0	1	11/27/19 19:21	
Ethylbenzene	1.0 U	1.0	1	11/27/19 19:21	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 19:21	
Toluene	1.0 U	1.0	1	11/27/19 19:21	
Trichloroethene (TCE)	7.4	1.0	1	11/27/19 19:21	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 19:21	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 19:21	
Xylenes, Total	3.0 U	3.0	1	11/27/19 19:21	
cis-1,2-Dichloroethene	8.7	1.0	1	11/27/19 19:21	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 19:21	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 19:21	
o-Xylene	1.0 U	1.0	1	11/27/19 19:21	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 19:21	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 19:21	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 00:00
Date Received: 11/22/19 09:20

Sample Name: DUP_20191120
Lab Code: R1911562-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	11/27/19 19:21	
Dibromofluoromethane	95	89 - 119	11/27/19 19:21	
Toluene-d8	101	87 - 121	11/27/19 19:21	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 07:45
Date Received: 11/22/19 09:20

Sample Name: FB_20191120
Lab Code: R1911562-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 15:43	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 15:43	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 15:43	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 15:43	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 15:43	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 15:43	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 15:43	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 15:43	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 15:43	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 15:43	
Acrolein	5.0 U	5.0	1	11/27/19 15:43	
Acrylonitrile	5.0 U	5.0	1	11/27/19 15:43	
Benzene	1.0 U	1.0	1	11/27/19 15:43	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 15:43	
Bromoform	1.0 U	1.0	1	11/27/19 15:43	
Bromomethane	1.0 U	1.0	1	11/27/19 15:43	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 15:43	
Chlorobenzene	1.0 U	1.0	1	11/27/19 15:43	
Chloroethane	1.0 U	1.0	1	11/27/19 15:43	
Chloroform	1.0 U	1.0	1	11/27/19 15:43	
Chloromethane	1.0 U	1.0	1	11/27/19 15:43	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 15:43	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 15:43	
Dichloromethane	1.0 U	1.0	1	11/27/19 15:43	
Ethylbenzene	1.0 U	1.0	1	11/27/19 15:43	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 15:43	
Toluene	1.0 U	1.0	1	11/27/19 15:43	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 15:43	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 15:43	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 15:43	
Xylenes, Total	3.0 U	3.0	1	11/27/19 15:43	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 15:43	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 15:43	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 15:43	
o-Xylene	1.0 U	1.0	1	11/27/19 15:43	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 15:43	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 15:43	

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dba ALS Environmental

Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 07:45
Date Received: 11/22/19 09:20

Sample Name: FB_20191120
Lab Code: R1911562-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	11/27/19 15:43	
Dibromofluoromethane	94	89 - 119	11/27/19 15:43	
Toluene-d8	99	87 - 121	11/27/19 15:43	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 07:35
Date Received: 11/22/19 09:20

Sample Name: FB_20191121
Lab Code: R1911562-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 16:05	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 16:05	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 16:05	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 16:05	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 16:05	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:05	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 16:05	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 16:05	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:05	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:05	
Acrolein	5.0 U	5.0	1	11/27/19 16:05	
Acrylonitrile	5.0 U	5.0	1	11/27/19 16:05	
Benzene	1.0 U	1.0	1	11/27/19 16:05	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 16:05	
Bromoform	1.0 U	1.0	1	11/27/19 16:05	
Bromomethane	1.0 U	1.0	1	11/27/19 16:05	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 16:05	
Chlorobenzene	1.0 U	1.0	1	11/27/19 16:05	
Chloroethane	1.0 U	1.0	1	11/27/19 16:05	
Chloroform	1.0 U	1.0	1	11/27/19 16:05	
Chloromethane	1.0 U	1.0	1	11/27/19 16:05	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 16:05	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 16:05	
Dichloromethane	1.0 U	1.0	1	11/27/19 16:05	
Ethylbenzene	1.0 U	1.0	1	11/27/19 16:05	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 16:05	
Toluene	1.0 U	1.0	1	11/27/19 16:05	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 16:05	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 16:05	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 16:05	
Xylenes, Total	3.0 U	3.0	1	11/27/19 16:05	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 16:05	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 16:05	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 16:05	
o-Xylene	1.0 U	1.0	1	11/27/19 16:05	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 16:05	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 16:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 07:35
Date Received: 11/22/19 09:20

Sample Name: FB_20191121
Lab Code: R1911562-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	11/27/19 16:05	
Dibromofluoromethane	94	89 - 119	11/27/19 16:05	
Toluene-d8	99	87 - 121	11/27/19 16:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 00:00
Date Received: 11/22/19 09:20

Sample Name: TB_20191120
Lab Code: R1911562-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 16:27	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 16:27	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 16:27	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 16:27	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 16:27	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:27	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 16:27	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 16:27	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:27	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:27	
Acrolein	5.0 U	5.0	1	11/27/19 16:27	
Acrylonitrile	5.0 U	5.0	1	11/27/19 16:27	
Benzene	1.0 U	1.0	1	11/27/19 16:27	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 16:27	
Bromoform	1.0 U	1.0	1	11/27/19 16:27	
Bromomethane	1.0 U	1.0	1	11/27/19 16:27	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 16:27	
Chlorobenzene	1.0 U	1.0	1	11/27/19 16:27	
Chloroethane	1.0 U	1.0	1	11/27/19 16:27	
Chloroform	1.0 U	1.0	1	11/27/19 16:27	
Chloromethane	1.0 U	1.0	1	11/27/19 16:27	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 16:27	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 16:27	
Dichloromethane	1.0 U	1.0	1	11/27/19 16:27	
Ethylbenzene	1.0 U	1.0	1	11/27/19 16:27	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 16:27	
Toluene	1.0 U	1.0	1	11/27/19 16:27	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 16:27	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 16:27	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 16:27	
Xylenes, Total	3.0 U	3.0	1	11/27/19 16:27	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 16:27	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 16:27	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 16:27	
o-Xylene	1.0 U	1.0	1	11/27/19 16:27	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 16:27	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 16:27	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19 00:00
Date Received: 11/22/19 09:20

Sample Name: TB_20191120
Lab Code: R1911562-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	11/27/19 16:27	
Dibromofluoromethane	96	89 - 119	11/27/19 16:27	
Toluene-d8	102	87 - 121	11/27/19 16:27	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 00:00
Date Received: 11/22/19 09:20

Sample Name: TB_20191121
Lab Code: R1911562-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 16:48	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 16:48	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 16:48	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 16:48	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 16:48	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:48	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 16:48	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 16:48	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:48	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 16:48	
Acrolein	5.0 U	5.0	1	11/27/19 16:48	
Acrylonitrile	5.0 U	5.0	1	11/27/19 16:48	
Benzene	1.0 U	1.0	1	11/27/19 16:48	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 16:48	
Bromoform	1.0 U	1.0	1	11/27/19 16:48	
Bromomethane	1.0 U	1.0	1	11/27/19 16:48	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 16:48	
Chlorobenzene	1.0 U	1.0	1	11/27/19 16:48	
Chloroethane	1.0 U	1.0	1	11/27/19 16:48	
Chloroform	1.0 U	1.0	1	11/27/19 16:48	
Chloromethane	1.0 U	1.0	1	11/27/19 16:48	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 16:48	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 16:48	
Dichloromethane	1.0 U	1.0	1	11/27/19 16:48	
Ethylbenzene	1.0 U	1.0	1	11/27/19 16:48	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 16:48	
Toluene	1.0 U	1.0	1	11/27/19 16:48	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 16:48	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 16:48	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 16:48	
Xylenes, Total	3.0 U	3.0	1	11/27/19 16:48	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 16:48	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 16:48	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 16:48	
o-Xylene	1.0 U	1.0	1	11/27/19 16:48	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 16:48	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 16:48	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/21/19 00:00
Date Received: 11/22/19 09:20

Sample Name: TB_20191121
Lab Code: R1911562-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	11/27/19 16:48	
Dibromofluoromethane	94	89 - 119	11/27/19 16:48	
Toluene-d8	99	87 - 121	11/27/19 16:48	



Metals

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METALS**-1-****INORGANIC ANALYSIS DATA SHEET**

SAMPLE NO.

MW-2_20191120Contract: **R1911562**Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: **MW-2_2019112**Matrix (soil/water): **WATER** Lab Sample ID: **R1911562-001**Level (low/med): **LOW** Date Received: **11/22/2019**Concentration Units (ug/L or mg/kg dry weight): **UG/L**

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	3660			P

Color Before: **COLORLESS** Clarity Before: **CLEAR** Texture: _____Color After: **COLORLESS** Clarity After: **CLEAR** Artifacts: _____Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-4_20191120Contract: **R1911562**Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: **MW-2_2019112**Matrix (soil/water): **WATER** Lab Sample ID: **R1911562-002**Level (low/med): **LOW** Date Received: **11/22/2019**Concentration Units (ug/L or mg/kg dry weight): **UG/L**

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	66.9			P

Color Before: **COLORLESS** Clarity Before: **CLEAR** Texture: _____Color After: **COLORLESS** Clarity After: **CLEAR** Artifacts: _____Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-5_20191120

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Lab Sample ID: R1911562-003

Level (low/med): LOW Date Received: 11/22/2019

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	311			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-7_20191120

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Lab Sample ID: R1911562-004

Level (low/med): LOW Date Received: 11/22/2019

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	237			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-1_20191120

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Lab Sample ID: R1911562-005

Level (low/med): LOW Date Received: 11/22/2019

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	56.9			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS**-1-****INORGANIC ANALYSIS DATA SHEET**

SAMPLE NO.

MW-3_20191121Contract: **R1911562**Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: **MW-2_2019112**Matrix (soil/water): **WATER** Lab Sample ID: **R1911562-006**Level (low/med): **LOW** Date Received: **11/22/2019**Concentration Units (ug/L or mg/kg dry weight): **UG/L**

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	189			P

Color Before: **COLORLESS** Clarity Before: **CLEAR** Texture: _____Color After: **COLORLESS** Clarity After: **CLEAR** Artifacts: _____Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

THM-12_20191121

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Lab Sample ID: R1911562-007

Level (low/med): LOW Date Received: 11/22/2019

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	108			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

DUP_20191120

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Lab Sample ID: R1911562-008

Level (low/med): LOW Date Received: 11/22/2019

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	67.4			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB_20191120

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Lab Sample ID: R1911562-009

Level (low/med): LOW Date Received: 11/22/2019

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	20.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB_20191121

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Lab Sample ID: R1911562-010

Level (low/med): LOW Date Received: 11/22/2019

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	20.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____



General Chemistry

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: MW-2_20191120
Lab Code: R1911562-001

Service Request: R1911562
Date Collected: 11/20/19 12:05
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.2	mg/L	1.0	1	12/04/19 01:05	
Chloride	9056A	428	mg/L	20	100	11/27/19 01:29	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 22:12	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	984	mg/L	10	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: MW-4_20191120
Lab Code: R1911562-002

Service Request: R1911562
Date Collected: 11/20/19 13:10
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.2	mg/L	1.0	1	12/04/19 01:25	
Chloride	9056A	569	mg/L	20	100	11/27/19 01:35	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 22:16	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1150	mg/L	13	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: MW-5_20191120
Lab Code: R1911562-003

Service Request: R1911562
Date Collected: 11/20/19 14:37
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.0	mg/L	1.0	1	12/04/19 03:10	
Chloride	9056A	2180	mg/L	60	300	11/27/19 02:04	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 22:28	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	3930	mg/L	50	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: MW-7_20191120
Lab Code: R1911562-004

Service Request: R1911562
Date Collected: 11/20/19 15:10
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.1	mg/L	1.0	1	12/04/19 03:31	
Chloride	9056A	1220	mg/L	40	200	11/27/19 02:11	
Phenolics, Total Recoverable	9066	0.0027	mg/L	0.0020	1	12/09/19 17:00	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	2340	mg/L	20	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: MW-1_20191120
Lab Code: R1911562-005

Service Request: R1911562
Date Collected: 11/20/19 15:39
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.5	mg/L	1.0	1	12/04/19 03:52	
Chloride	9056A	84.5	mg/L	2.0	10	11/25/19 18:39	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 22:36	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	445	mg/L	10	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: MW-3_20191121
Lab Code: R1911562-006

Service Request: R1911562
Date Collected: 11/21/19 08:40
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.2	mg/L	1.0	1	12/04/19 04:13	
Chloride	9056A	14.4	mg/L	2.0	10	11/25/19 18:45	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 22:40	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	546	mg/L	10	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: THM-12_20191121
Lab Code: R1911562-007

Service Request: R1911562
Date Collected: 11/21/19 09:44
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.5	mg/L	1.0	1	12/04/19 04:34	
Chloride	9056A	2.0 U	mg/L	2.0	10	11/25/19 18:51	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 23:00	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	405	mg/L	10	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: DUP_20191120
Lab Code: R1911562-008

Service Request: R1911562
Date Collected: 11/20/19 00:00
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.7	mg/L	1.0	1	12/04/19 04:54	
Chloride	9056A	579	mg/L	20	100	11/27/19 02:17	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 23:08	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1170	mg/L	10	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: FB_20191120
Lab Code: R1911562-009

Service Request: R1911562
Date Collected: 11/20/19 07:45
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	12/04/19 05:15	
Chloride	9056A	2.0 U	mg/L	2.0	10	11/25/19 19:03	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 23:12	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	15	mg/L	10	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: FB_20191121
Lab Code: R1911562-010

Service Request: R1911562
Date Collected: 11/21/19 07:35
Date Received: 11/22/19 09:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	12/04/19 05:36	
Chloride	9056A	2.0 U	mg/L	2.0	10	11/25/19 19:21	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 23:16	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	15	mg/L	10	1	11/26/19 14:30	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
MW-2_20191120	R1911562-001	91	95	100
MW-4_20191120	R1911562-002	91	91	97
MW-5_20191120	R1911562-003	94	96	101
MW-7_20191120	R1911562-004	92	94	100
MW-1_20191120	R1911562-005	89	94	98
MW-3_20191121	R1911562-006	91	92	99
THM-12_20191121	R1911562-007	95	96	101
DUP_20191120	R1911562-008	94	95	101
FB_20191120	R1911562-009	91	94	99
FB_20191121	R1911562-010	92	94	99
TB_20191120	R1911562-011	96	96	102
TB_20191121	R1911562-012	91	94	99
Method Blank	RQ1913987-06	92	93	100
Lab Control Sample	RQ1913987-03	98	98	103
MW-4_20191120 MS	RQ1913987-09	95	98	101
MW-4_20191120 DMS	RQ1913987-10	90	95	100

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19
Date Received: 11/22/19
Date Analyzed: 11/27/19
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-4_20191120
Lab Code: R1911562-002
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1913987-09			Duplicate Matrix Spike RQ1913987-10			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	1.0 U	48.0	50.0	96	50.2	50.0	100	74-127	4	30
1,1,2,2-Tetrachloroethane	1.0 U	56.2	50.0	112	56.3	50.0	113	72-122	<1	30
1,1,2-Trichloroethane	1.0 U	47.8	50.0	96	50.2	50.0	100	82-121	5	30
1,1-Dichloroethane (1,1-DCA)	1.0 U	58.7	50.0	117	57.9	50.0	116	74-132	1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	56.3	50.0	113	55.5	50.0	111	71-118	1	30
1,2-Dichlorobenzene	1.0 U	49.3	50.0	99	51.1	50.0	102	77-120	4	30
1,2-Dichloroethane	1.0 U	43.4	50.0	87	43.6	50.0	87	68-130	<1	30
1,2-Dichloropropane	1.0 U	56.9	50.0	114	58.2	50.0	116	79-124	2	30
1,3-Dichlorobenzene	1.0 U	51.5	50.0	103	53.1	50.0	106	83-121	3	30
1,4-Dichlorobenzene	1.0 U	49.7	50.0	99	51.0	50.0	102	82-120	3	30
Acrolein	5.0 U	70.0	100	70	68.7	100	69	13-165	2	30
Acrylonitrile	5.0 U	312	250	125	307	250	123	69-131	1	30
Benzene	1.0 U	56.3	50.0	113	57.0	50.0	114	76-129	1	30
Bromodichloromethane	1.0 U	45.9	50.0	92	46.9	50.0	94	78-133	2	30
Bromoform	1.0 U	38.4	50.0	77	42.3	50.0	85	58-133	10	30
Bromomethane	1.0 U	33.0	50.0	66	33.6	50.0	67	10-184	2	30
Carbon Tetrachloride	1.0 U	41.4	50.0	83	43.5	50.0	87	65-135	5	30
Chlorobenzene	1.0 U	52.6	50.0	105	53.7	50.0	107	76-125	2	30
Chloroethane	1.0 U	48.8	50.0	98	47.2	50.0	94	48-146	3	30
Chloroform	1.5	53.1	50.0	103	53.1	50.0	103	75-130	<1	30
Chloromethane	1.0 U	62.8	50.0	126	63.4	50.0	127	55-160	<1	30
Dibromochloromethane	1.0 U	43.1	50.0	86	45.8	50.0	92	72-128	6	30
Dichlorodifluoromethane (CFC 12)	1.0 U	54.6	50.0	109	54.7	50.0	109	49-154	<1	30
Dichloromethane	1.0 U	52.5	50.0	105	52.4	50.0	105	73-122	<1	30
Ethylbenzene	1.0 U	55.1	50.0	110	56.9	50.0	114	72-134	3	30
Tetrachloroethene (PCE)	1.0 U	53.2	50.0	106	54.5	50.0	109	72-125	2	30
Toluene	1.0 U	55.6	50.0	111	56.6	50.0	113	79-119	2	30
Trichloroethene (TCE)	7.2	54.9	50.0	95	56.4	50.0	98	74-122	3	30
Trichlorofluoromethane (CFC 11)	1.0 U	52.2	50.0	104	53.5	50.0	107	71-136	3	30
Vinyl Chloride	1.0 U	55.4	50.0	111	55.3	50.0	111	74-159	<1	30
cis-1,2-Dichloroethene	8.4	61.6	50.0	106	62.1	50.0	107	77-127	<1	30
cis-1,3-Dichloropropene	1.0 U	47.0	50.0	94	49.2	50.0	98	52-134	4	30
m,p-Xylenes	2.0 U	113	100	113	116	100	116	80-126	2	30
o-Xylene	1.0 U	54.5	50.0	109	55.9	50.0	112	79-123	2	30
trans-1,2-Dichloroethene	1.0 U	54.1	50.0	108	54.3	50.0	109	73-118	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19
Date Received: 11/22/19
Date Analyzed: 11/27/19
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-4_20191120
Lab Code: R1911562-002
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1913987-09			Duplicate Matrix Spike RQ1913987-10			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
trans-1,3-Dichloropropene	1.0 U	44.0	50.0	88	44.8	50.0	90	71-133	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1913987-06

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	11/27/19 12:49	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	11/27/19 12:49	
1,1,2-Trichloroethane	1.0 U	1.0	1	11/27/19 12:49	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	11/27/19 12:49	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	11/27/19 12:49	
1,2-Dichlorobenzene	1.0 U	1.0	1	11/27/19 12:49	
1,2-Dichloroethane	1.0 U	1.0	1	11/27/19 12:49	
1,2-Dichloropropane	1.0 U	1.0	1	11/27/19 12:49	
1,3-Dichlorobenzene	1.0 U	1.0	1	11/27/19 12:49	
1,4-Dichlorobenzene	1.0 U	1.0	1	11/27/19 12:49	
Acrolein	5.0 U	5.0	1	11/27/19 12:49	
Acrylonitrile	5.0 U	5.0	1	11/27/19 12:49	
Benzene	1.0 U	1.0	1	11/27/19 12:49	
Bromodichloromethane	1.0 U	1.0	1	11/27/19 12:49	
Bromoform	1.0 U	1.0	1	11/27/19 12:49	
Bromomethane	1.0 U	1.0	1	11/27/19 12:49	
Carbon Tetrachloride	1.0 U	1.0	1	11/27/19 12:49	
Chlorobenzene	1.0 U	1.0	1	11/27/19 12:49	
Chloroethane	1.0 U	1.0	1	11/27/19 12:49	
Chloroform	1.0 U	1.0	1	11/27/19 12:49	
Chloromethane	1.0 U	1.0	1	11/27/19 12:49	
Dibromochloromethane	1.0 U	1.0	1	11/27/19 12:49	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	1	11/27/19 12:49	
Dichloromethane	1.0 U	1.0	1	11/27/19 12:49	
Ethylbenzene	1.0 U	1.0	1	11/27/19 12:49	
Tetrachloroethene (PCE)	1.0 U	1.0	1	11/27/19 12:49	
Toluene	1.0 U	1.0	1	11/27/19 12:49	
Trichloroethene (TCE)	1.0 U	1.0	1	11/27/19 12:49	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	1	11/27/19 12:49	
Vinyl Chloride	1.0 U	1.0	1	11/27/19 12:49	
Xylenes, Total	3.0 U	3.0	1	11/27/19 12:49	
cis-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 12:49	
cis-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 12:49	
m,p-Xylenes	2.0 U	2.0	1	11/27/19 12:49	
o-Xylene	1.0 U	1.0	1	11/27/19 12:49	
trans-1,2-Dichloroethene	1.0 U	1.0	1	11/27/19 12:49	
trans-1,3-Dichloropropene	1.0 U	1.0	1	11/27/19 12:49	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1913987-06

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	11/27/19 12:49	
Dibromofluoromethane	93	89 - 119	11/27/19 12:49	
Toluene-d8	100	87 - 121	11/27/19 12:49	

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QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Analyzed: 11/27/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1913987-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.3	20.0	91	75-125
1,1,2,2-Tetrachloroethane	8260C	21.4	20.0	107	78-126
1,1,2-Trichloroethane	8260C	19.0	20.0	95	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.1	20.0	105	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.9	20.0	105	71-118
1,2-Dichlorobenzene	8260C	19.9	20.0	100	80-119
1,2-Dichloroethane	8260C	16.2	20.0	81	71-127
1,2-Dichloropropane	8260C	21.6	20.0	108	80-119
1,3-Dichlorobenzene	8260C	20.2	20.0	101	83-121
1,4-Dichlorobenzene	8260C	19.5	20.0	97	79-119
Acrolein	8260C	26.0	40.0	65	13-165
Acrylonitrile	8260C	114	100	114	71-130
Benzene	8260C	21.5	20.0	108	79-119
Bromodichloromethane	8260C	17.8	20.0	89	81-123
Bromoform	8260C	15.2	20.0	76	65-146
Bromomethane	8260C	16.1	20.0	81	42-166
Carbon Tetrachloride	8260C	16.2	20.0	81	70-127
Chlorobenzene	8260C	20.6	20.0	103	80-121
Chloroethane	8260C	17.5	20.0	88	62-131
Chloroform	8260C	19.2	20.0	96	79-120
Chloromethane	8260C	23.5	20.0	117	65-135
Dibromochloromethane	8260C	17.0	20.0	85	72-128
Dichlorodifluoromethane (CFC 12)	8260C	21.3	20.0	106	59-155
Dichloromethane	8260C	20.5	20.0	102	73-122
Ethylbenzene	8260C	21.0	20.0	105	76-120
Tetrachloroethene (PCE)	8260C	20.3	20.0	101	72-125
Toluene	8260C	21.4	20.0	107	79-119
Trichloroethene (TCE)	8260C	18.2	20.0	91	74-122
Trichlorofluoromethane (CFC 11)	8260C	19.4	20.0	97	71-136
Vinyl Chloride	8260C	20.5	20.0	102	74-159
cis-1,2-Dichloroethene	8260C	19.5	20.0	98	80-121
cis-1,3-Dichloropropene	8260C	18.7	20.0	94	77-122
m,p-Xylenes	8260C	43.5	40.0	109	80-126

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QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Analyzed: 11/27/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1913987-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
o-Xylene	8260C	20.7	20.0	103	79-123
trans-1,2-Dichloroethene	8260C	19.5	20.0	98	73-118
trans-1,3-Dichloropropene	8260C	17.4	20.0	87	71-133



Metals

ALS Environmental—Rochester Laboratory

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METALS

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BLANKSContract: R1911562Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112Preparation Blank Matrix (soil/water): WATERPreparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank			M	
		1	C	2	C	3	C					
Barium	20.00	U	20.00	U	20.00	U	20.00	U	20.000	U		P

Comments:

METALS

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BLANKS

Contract: R1911562

Lab Code: Case No.: SAS No.: SDG NO.: MW-2_2019112

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		
		1	2	3						
Barium		20.00	20.00	20.00	U	U	U			P

Comments:

METALS

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BLANKS

Contract: R1911562

Lab Code: Case No.: SAS No.: SDG NO.: MW-2_2019112

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		
		1	2	3						
Barium		20.00								P

Comments:

METALS

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SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-4_20191120S

Contract: R1911562

Lab Code: Case No.: SAS No.: SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Barium	75 - 125	2090.00	66.90	2000.0	101		P

Comments:

METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-4_20191120SD

Contract: R1911562

Lab Code: Case No.: SAS No.: SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Barium	75 - 125	2080.00	66.90	2000.0	101		P

Comments:

**METALS
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DUPLICATES**

SAMPLE NO.

MW-4_20191120SD

Contract: R1911562

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-2_2019112

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Barium		2090.00	2080.00	0		P

Comments: _____

METALS

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LABORATORY CONTROL SAMPLE

Contract: R1911562

Lab Code: Case No.: SAS No.: SDG NO.: MW-2_2019112

Solid LCS Source:

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K					
	True	Found	%R	True	Found	C	Limits	%R	
Barium	2000	2050	102						

Comments:



General Chemistry

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1911562-MB1

Service Request: R1911562
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	12/03/19 21:18	
Chloride	9056A	0.20 U	mg/L	0.20	1	11/25/19 16:52	
Phenolics, Total Recoverable	9066	0.0021	mg/L	0.0020	1	12/02/19 20:00	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	1	11/26/19 14:30	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1911562-MB2

Service Request: R1911562
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	0.20 U	mg/L	0.20	1	11/27/19 00:41	
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/02/19 22:48	

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Analytical Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1911562-MB3

Service Request: R1911562
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Phenolics, Total Recoverable	9066	0.0020 U	mg/L	0.0020	1	12/09/19 14:56	

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QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19
Date Received: 11/22/19
Date Analyzed: 11/27/19 - 12/04/19

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW-4_20191120
Lab Code: R1911562-002

Units: mg/L
Basis: NA

Matrix Spike
R1911562-002MS

Duplicate Matrix Spike
R1911562-002DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Chloride	9056A	569	750	200	90	751	200	91	80-120	<1	15
Phenolics, Total Recoverable	9066	0.0020 U	0.0387	0.0400	97	0.0393	0.0400	98	49-137	2	20
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.2	12.0	10.0	98	12.0	10.0	99	48-135	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: ARCADIS U.S., Inc.
Project GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Collected: 11/20/19
Date Received: 11/22/19
Date Analyzed: 11/26/19

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-4_20191120
Lab Code: R1911562-002

Units: mg/L
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1911562-002DUP Result	Average	RPD	RPD Limit
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	13	1150	1160	1160	1	10

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Analyzed: 11/25/19 - 12/03/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1911562-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.0	10.0	100	80-121
Chloride	9056A	2.03	2.00	101	80-120
Phenolics, Total Recoverable	9066	0.0390	0.0400	97	85-115
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	926	914	101	90-110

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QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Analyzed: 11/27/19 - 12/02/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1911562-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	9056A	2.00	2.00	100	80-120
Phenolics, Total Recoverable	9066	0.0376	0.0400	94	85-115

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: ARCADIS U.S., Inc.
Project: GE Niskayuna/AP015012.4000
Sample Matrix: Water

Service Request: R1911562
Date Analyzed: 12/09/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1911562-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Phenolics, Total Recoverable	9066	0.0371	0.0400	93	85-115

APPENDIX D

Landfill Inspection Form



SITE INSPECTION FORM
GE GLOBAL RESEARCH CENTER
INACTIVE CHEMICAL LANDFILL

Page 1 of 1

EVALUATORS: A. Gibson

DATE OF INSPECTION: 11/21/2019

A. SECURITY & ACCESS (Annually)

1. Site access gate
2. Fencing
3. Signs posted - site perimeter
4. Main access road

Adequate	Needs Attention
X	
X	
X	
X	

Note evidence of unauthorized entry: No evidence of unauthorized entry noted

B. COVER AND VEGETATION (Annually)

1. Top slope (good drainage, no erosion)
2. Top slope (vegetation quality & density)
3. Side slopes (good drainage, small erosion)
4. Side slopes (vegetation quality & density)

Adequate	Needs Attention
X	
X	
X	
X	

Note evidence of leachate seeps: No evidence of leachate seeps noted

C. DRAINAGE (Annually)

1. North Diversion Channel
2. West Diversion Channel
3. Upslope Diversion Channel (inst. 2011)

Adequate	Needs Attention
X	
X	
X	

D. COMMENTS: (Reference Item No.):

Exposed fence post footer noted in 2017 still above grade. This condition does not appear
to compromise the integrity of the fence but has resulted in a slight lean visible in the
photo log.

APPENDIX E

Landfill Inspection Photo Log



Project Photographs

GE Global Research Center
Landfill Inspection
Niskayuna, NY



Photo: # 1

Date:
11/21/2019

Description:
Gated entrance to the Environmental Control Facility (ECF) and the landfill. Gate is in good condition and can be closed and locked to restrict access to the ECF and landfill areas.

Location:
Roadway, looking southwest



Photo: 2

Date:
11/21/2019

Description:
Signs on the gated entrance to the ECF and the landfill. Signs are in good condition and contain contact information and an emergency phone number.

Location:
ECF and landfill entrance, looking southwest

Project Photographs

GE Global Research Center
Landfill Inspection
Niskayuna, NY



Photo: 3

Date:
11/21/2019

Description:
View of landfill from south edge. Landfill is in good condition with adequate cover and drainage.

Location:
South edge of landfill, looking north



Photo: 4

Date:
11/21/2019

Description:
View of landfill from southeast corner. Landfill and eastern fence are in good condition.

Location:
Southeast corner of landfill, looking north

Project Photographs

GE Global Research Center
Landfill Inspection
Niskayuna, NY



Photo: 5

Date:
11/21/2019

Description:
Rock lined drainage
interceptor along the west
side of the landfill that is in
good condition.

Location:
Northwest corner of landfill,
looking south



Photo: 6

Date:
11/21/2019

Description:
View of northern fence line.
Fence is in good condition.

Location:
Northwest corner of landfill,
looking east

Project Photographs

GE Global Research Center
Landfill Inspection
Niskayuna, NY



Photo: 7

Date:
11/21/2019

Description:
View of drainage ditch, in good condition. The ditch is at the end of the rock lined drainage interceptor that borders the landfill to the west.

Location:
North end of landfill, looking north



Photo: 8

Date:
11/21/2019

Description:
Fence post on western boundary of landfill. Concrete base of post is visible above ground.

Location:
Center of western landfill boundary, looking west

Project Photographs

GE Global Research Center
Landfill Inspection
Niskayuna, NY



Photo: 9

Date:

11/21/2019

Description:

Fence on western side of the landfill leans in toward the landfill. The condition of the fence has not changed significantly since the 2017 inspection.

Location:

Northwest corner of landfill, looking south



Photo: 10

Date:

11/21/2019

Description:

Fence post along the western boundary has detached from fence and is leaning in. This issue was noted during the 2017 and 2018 inspections, and the fence condition does not appear to have changed since then.

Location:

Western border of landfill, looking south

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