2021 Annual Report

Peter Cooper Site
(Zoar Valley Gateway Park)

Gowanda, New York

rev. 1

Prepared for

Gowanda Area Redevelopment Corporation

Gowanda, New York

October 2022

Barton&Loguidice

Peter Cooper Gowanda Site
(Zoar Valley Gateway Park)
Gowanda, New York

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Prepared For:

Gowanda Area Redevelopment Corporation
Gowanda, New York

Prepared By:

Barton & Loguidice, D.P.C.
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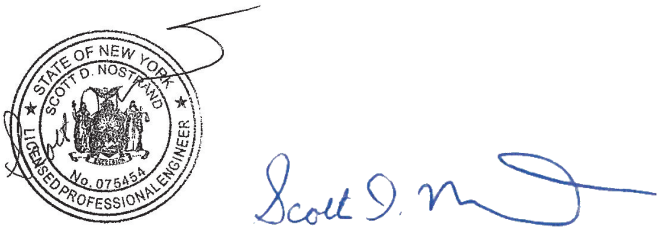
Buffalo, New York 14207

CERTIFICATION

I, Scott D Nostrand, P.E. of Barton & Loguidice, D.P.C. at 443 Electronics Parkway, Liverpool, New York 13088, am currently a registered professional engineer licensed by the State of New York. I certify that all information and statements in this Annual Summary Report for the Peter Cooper Gowanda Site (a.k.a. Zoar Valley Gateway Park) are true. I make this certification on behalf of the Site Owner, Gowanda Area Redevelopment Corporation (GARC), and have been authorized and designated by GARC to sign this certification for the site.



P.E. Stamp/Signature

February 7, 2022

Date

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1.0 BACKGROUND AND SITE DESCRIPTION

The Subject Site is an approximate 26-acre property located off Palmer Street, in the Village of Gowanda, Cattaraugus County, New York (see Figures 1 and 2). The Site is bordered to the north by Cattaraugus Creek; to the south by Palmer Street; to the west by a former hydroelectric dam and wetland area; and to the east by residential properties.

The Site was previously used to manufacture animal glue and industrial adhesives. Peter Cooper Corporation (PCC) and/or its predecessors, Eastern Tanners Glue Company, manufactured animal glue at the Site from 1904 to 1972. When the animal glue product line was terminated, PCC continued to produce synthetic industrial adhesives until the plant closed in 1985. Between 1925 and October 1970, PCC used the northwest portion of the property (a 5-acre area known as the "Elevated Fill Subarea") to pile sludge remaining after the animal glue manufacturing process. These wastes, known as "cookhouse sludge" because of a cooking cycle that occurred just prior to extraction of the glue, were derived from animal hides, some of which were chrome-tanned hides obtained from tanneries. The waste material has been shown to contain elevated levels of chromium, arsenic, zinc, and several organic compounds.

In 1998, EPA prepared a Hazard Ranking System Model score for the Site and added it to the National Priority List (NPL) on April 6, 1998. In April 2000, EPA issued a Unilateral Administrative Order (UAO) CERCLA-02-2000-2014 to fourteen potentially responsible parties (PRPs) directing that they complete a remedial investigation and feasibility study (RI/FS) for the Site.

The UAO became effective May 1, 2000. The RI/FS was performed on behalf of the PRPs by Benchmark Environmental Engineering and Science, PLLC (Benchmark) and its sub-consultant, Geomatrix, Inc. The RI field investigation activities were performed from August 2000 to April 2001, and the final RI report was submitted to EPA in November 2003. The FS was substantially completed by the PRPs in July 2004, and was finalized in June 2005.

Concurrent with completion of RI activities, the Village of Gowanda in association with the University at Buffalo developed a Reuse Assessment and Concept Plan for the Site that concluded that the "highest and best use" of the remainder of the property outside of the 5-acre Elevated Fill Subarea after cleanup would be as a multi-use recreational facility, specifically a public park incorporating elements such as a walking/biking trail, fishing access, outdoor picnic areas, and athletic fields. The New York State Department of Environmental Conservation and the USEPA agreed that use in this capacity would require placement of clean cover soils, specifically one foot of cover in passive recreational areas and two feet in active recreational areas.

Based upon the results of the RI/FS, a Record of Decision (ROD) was signed on September 30, 2005. Specifically, the ROD called for:

- Excavating three "hot spot" soil areas identified across the Site and consolidating them within the Elevated Fill Subarea, followed by capping the 5-acre Elevated Fill Subarea of the inactive landfill area with a 12-inch low permeability soil cap, followed by 6-inches of topsoil and seed.

- Collecting leachate/groundwater seeps that were observed discharging from the Elevated Fill Subarea to Cattaraugus Creek. The collected leachate is pumped through a pretreatment building where it may be pretreated, if necessary, with hydrogen peroxide to remove hydrogen sulfide prior to discharge to the sanitary sewer for final treatment at the local Publicly Owned Treatment Works (POTW).
- Stabilizing the bank of Cattaraugus Creek along the Elevated Fill Area with a poly liner and heavy riprap stone.
- Installing a groundwater diversion system to limit groundwater migration through the Elevated Fill Subarea. (*Subsequent engineering analyses by Benchmark and Geomatrix demonstrated that this element would not provide additional benefit. USEPA agreed and ultimately removed this requirement from the remedial design*).
- Installing a passive gas venting system for proper venting of the 5-acre Elevated Fill Subarea.
- Performing long-term operation and maintenance of the remedial measures including inspections and repairs of the landfill cap, gas venting, and leachate collection and pretreatment systems;
- Performing post-remedial surface water and groundwater quality monitoring; and
- Evaluating Site conditions at least once every five years to determine if the remedy remains protective.

This remedy also includes certain institutional controls, including an environmental easement which limits future use of the Site and the groundwater to ensure that the implemented remedial measures will not be disturbed and that the Site will not be redeveloped for purposes other than a park. A Site Management Plan was also required to ensure appropriate handling of subsurface soils during redevelopment and to formalize the post-remedial operation, maintenance and monitoring requirements.

Following issuance of the ROD, the Village of Gowanda and the PRPs entered into discussions concerning the Village's redevelopment goals. An agreement was reached whereby the Gowanda Area Redevelopment Corporation (GARC) took ownership of the Site and agreed to perform certain post-remedial operation, maintenance and monitoring activities in exchange for provision of specific non-remedial site enhancements and funding by the PRPs to facilitate park redevelopment.

On February 12, 2009, a Consent Decree stipulating the required remedial construction elements was entered in United States District Court. On March 15, 2009, Benchmark was approved by EPA as the supervising contractor to conduct the remedial design and construction work at the Site.

1.1 Remedial Construction

Conditional approval to start site preparation and hotspot removal was issued to Benchmark in July 2009. The remedial measures and above-described non-remedial enhancements were substantially completed by December 2009; the final Elevated Fill Subarea cover system topsoil and seeding work was completed in summer of 2010.

On September 9, 2010, a final inspection was conducted by the USEPA. Based on the results of the inspection, it was determined that the required remedial construction was complete. The only outstanding element was the placement of clean cover soil over the remainder of the site, which has since been completed by GARC.

1.2 Post-Remedial Operation, Maintenance, and Monitoring

Post-Remedial Operation, Maintenance and Monitoring (OM&M) responsibilities were initially shared by the PRPs who undertook the remedial work (deemed the cooperating PRPs, or cPRPs) and GARC in accordance with the September 2010 Site Management Plan (SMP) prepared by Benchmark. In general, the responsibilities include:

- Semi-annual sampling of five onsite monitoring wells and three surface water locations with associated reporting to EPA (cPRPs);
- Semi-annual inspection of the landfill cover system and creek bank (cPRPs);
- Cover system mowing and maintenance (GARC);
- Leachate/groundwater collection and pretreatment, including sampling of the pretreatment system effluent per a discharge permit issued by the POTW (GARC);
- Other site maintenance (GARC).

Semi-annual post-remedial groundwater monitoring began in July 2011 and continued through June 2013. The groundwater monitoring were consistently favorable, indicating no adverse impact to Cattaraugus Creek from the Site and few parameters above the NY State groundwater quality standards. Based upon these results USEPA approved a request by the cPRPs to reduce the monitoring frequency from semi-annual to annual. Annual groundwater monitoring reports submitted by the cPRPs since that time have shown similar favorable results.

Similarly, visual inspections of the final cover indicate that the vegetation is well established, with no evidence of erosion. There are no indications of leachate breakouts or staining on the cover system. The gas venting system continues to mitigate any gas build up beneath the cover system. Inspections of the creek bank indicate no washouts where stabilization was constructed as part of the remedial activities.

Concerning the groundwater/seep collection and pretreatment system, the Village of Gowanda, on behalf of GARC, collects effluent samples that routinely demonstrate conformance with Significant Industrial User (SIU) permit limits. In addition, pretreatment with peroxide has not

been necessary to achieve sulfide discharge limits since the collection system was started up in 2010.

1.3 Regulatory Status

On September 17, 2010 EPA issued a Preliminary Close Out Report (PCOR) which determined that construction activities at the Peter Cooper Landfill Superfund site have been completed in accordance with the Close-Out Procedures for National Priorities List Sites (OSWER Directive 9320.2-09A-P). The New York State Department of Environmental Conservation, which had previously listed the Site as a "Class 2" Site (indicating it poses a significant threat to public health and the environment) due to its federal NPL status, subsequently reclassified the site to "Class 4" (i.e., properly closed – requires continued management).

The first five-year review for the Site was undertaken by the USEPA in October 2014. The purpose of the five-year review is to determine if the remedy is and will continue to be protective of human health and the environment. The triggering action for the statutory five-year review is the initiation of on-site remedial construction, which began at the Site in late 2009.

The 5 year review Report was issued by the USEPA in April 2015. The report concluded "*based upon reviews of the Record of Decision, annual groundwater sampling results, and site inspection reports as prepared by the potentially responsible parties, as well as a site visit conducted by United States Environmental Protection Agency personnel on October 30, 2014, the remedy is functioning as intended by the decision document and is protective of human health and the environment. An environmental easement has been placed on the site property to address any future uses of the property which would impact contaminated soil left in place, and to prohibit groundwater use unless groundwater quality standards are met. The site management plan requires continued monitoring of the site. There are no recommendations or follow-up actions identified in this five-year review.*"

The site remained on the NPL pending completion of clean cover placement in the planned park redevelopment area outside of the Elevated Fill Subarea, which was completed in 2017. Subsequently, on May 1, 2019, USEPA issued a Final Close Out Report (FCOP). The FCOP stated "*The Site meets all the Site-completion requirements as specified in Close Out Procedures for National Priorities List Sites (OSWER Directive 9320.2-22, May 2011). Specifically, the implemented remedy achieved the degree of cleanup specified in the ROD for all pathways of exposure. The remedy, remedial action objectives, and associated cleanup goals are consistent with agency policy and guidance. No further Superfund response action is needed to protect human health and the environment.*

The only continuing remedial efforts at the Site are the ongoing maintenance of the landfill cap, the groundwater and surface water monitoring and insuring that the institutional controls in the form of restrictive covenant to restrict the use of on-Site groundwater as a source of potable or process water and to restrict activities on the Site that could compromise the integrity of the cap

remain in place and continue to be effective. Five-year reviews will continue to be performed to ensure the remedy remains protective." NYSDEC issued a concurrence letter on June 25, 2019, and USEPA delisted the site from the NPL on July 30, 2019.

The second five-year review for the Site was undertaken by the USEPA in November 2019. The five-year review report was issued by the USEPA in December 2019. The review "*did not identify any issue or make any recommendation for the protection of public health or the environment which was not included or anticipated by the site decision documents*."

The second five-year review allowed for the following changes in site management:

- Groundwater sampling will be performed every fifth quarter, instead of annually, which will allow for evaluation of seasonal variability in the data.
- Groundwater level measurement will also be performed every fifth quarter, instead of annually.
- Inspections will continue to be performed annually to verify the integrity of the cover system.

The site is owned by GARC. Following delisting of the site, the cPRPs responsibility for monitoring of the site has ended, and GARC has retained Barton & Loguidice D.P.C. to perform monitoring activities. Ongoing maintenance of the cap and other components of the remedy, plus the operation of the leachate collection and treatment system is performed by the Village of Gowanda.

2.0 SUMMARY OF SITE REMEDY PERFORMANCE

2.1 Elevated Fill Subarea Cover System

B&L performed an annual inspections in December 2021 (See Appendix A). The reports indicated that vegetation on the elevated Fill Subarea remains well established, with no evidence of erosion. There are no signs of leachate breakouts or staining on the cover system. Inspections of the creek bank identified no washouts where stabilization was constructed as part of the remedial activities.

2.2 Monitoring Wells and Gas Vents

Earlier in the year, the stickup of MWFP-2S was bent. It has since been straightened and the well remains operational. The remainder of the wells and vents were in good shape. There was no stressed vegetation around vents.

2.3 Groundwater and Surface Water Quality

Groundwater and surface water sampling was performed in June 2021. The results of the sampling are presented in Appendix A. All the monitored parameters were reported as non-detect or below the ground water or surface water quality standard at all the sampling locations with few minor exceptions where slight exceedances of the groundwater standards were reported. These were limited to total manganese at MW-1SR (upgradient well, with the highest concentration), MW-5S, MWFP-2S, and MWFP-3S, and ammonia in MW-5S, MWFP-2S, and MWFP-3S.

2.4 Groundwater/Seep Collection and Pretreatment

Concerning the groundwater/seep collection and pretreatment system, the Village of Gowanda, on behalf of GARC, once-every-15-months monitoring of discharges to the sanitary sewer in accordance with the SIU permit for the facility (rev. March 2020 – see Appendix B).

Data collected during the 2021 calendar year are summarized in Table 1 and the analytical report is included in Appendix C. The list of parameters tested was based on the proposed revision to the permit analytical requirements. The proposed revision will eliminate hexavalent chromium but will continue to analyze for total chromium, levels have consistently been very low. Additionally, because the modified Priority Pollutant analysis will be removed from the Village of Gowanda's POTW State Pollution Discharge Elimination System (SPDES) permit due to the little or no Priority Pollutants being present in the POTW discharge, the Total Toxic Organic (TTO) monitoring requirement will be removed from the SIU permit. The village will revise the Total Organic Halide (TOX) to a monitor-only requirement in the SIU permit. COD was not analyzed this year but will be analyzed in future years and be used as a basis for estimating total oxygen demand levels. All analytical results show conformance with permit limits. Pretreatment with peroxide was not necessary to prevent discharge of Hydrogen sulfide (H_2S) during the reporting period as dissolved oxygen levels were consistently above 2 ppm.

One of the two pumps in the collection system became disabled in November. However, the second pump continued operating and groundwater collection continued unimpeded. The disabled pump is scheduled to be replaced in early 2022.

3.0 SITE IMPROVEMENTS

3.1 Topsoil Import

Prior to 2021, construction of an amphitheater and kayak launch, together with placement of exacavated clean soil on the site to provide a level surface, was substantially complete. In 2021, additional top soil was imported to the site. Additionally, it was learned that some topsoil provided by the construction contractor to the site in 2020 was not the same soil for which the contractor provided analytical data (which was included in pages 183-308 of the 2020 annual report). Upon learning this, the Engineer of Record for the construction activities (C&S Engineers) requested analysis of the soil stockpile from which the previous topsoil was sourced. The analyses of this soil stockpile are provided in Appendix D. This soil meets the restricted-residential criteria from Table 375-6.8(b) of the Part 375 regulations.

The locations of the placement of the imported topsoil are shown in the drawings in Appendix E. Part of this shaded area received new shipments of topsoil from this same source during 2021. The contractor imported 288 tons of topsoil during this reporting period.

4.0 OPERATION AND MAINTENANCE COSTS

Costs incurred by the Village of Gowanda are detailed in Appendix F. The summary of the costs is provided below:

	1/2021-3/2021	4/2021-5/2021	6/2021-9/2021	10/2021-12/2021
Leachate Pump Station Electric	583.49	558.14	729.46	506.6
Sampling/Pump Replacement Labor	499.96	362.04	896.00	2517.76
Microbac Testing			481.75	
Admin Expense Monitoring & Processing	112.50	75.00	150.00	168.75
Leachate Flow	86.08	56.17	199.52	148.57
Barton & Loguidice D.P.C. (sampling, reporting)			12,020.00	
Total	**1,282.03**	**1,051.35**	**14,476.73**	**3,341.68**

TABLE 1
Discharge Permit Analyses

TABLE 1
DISCHARGE PERMIT ANALYSES
Peter Cooper Gowanda Site
Gowanda, New York

Parameter	Criterion		Result	
	Value	Units	Value	lbs/Day (where applicable)
Flow Rate	30,000	gpd	~2,600	
Total Toxic Organics	1.37	mg/L	ND	
Total Organic Halogen	0.1	mg/L	ND	
BOD	200	lb/d	NA	
Total Solids	181	lb/d	NA	
pH	5 - 10.5	standard unit	6.98-7.46	
Arsenic	0.0062	lb/d	ND	
Total Chromium	0.032	lb/d	0.034 mg/L	0.000001
Hexavalent Chromium	0.0048	lb/d	NA	
Phenol	0.78	lb/d	ND	
Ammonia	75	lb/d	158 mg/L	0.0016
Dissolved Oxygen	2	mg/L	4	
Sulfides	9	mg/L	ND	

Notes:

1. NA = Not analyzed, ND = Not detected above detection limit
2. Phenol result is for total phenols by method 420.1
3. VOCs analyzed by method 8260D
4. Metals analyzed by method 200.7
5. Ammonia analyzed by standard method 4500-NH3
6. Sulfides analyzed by standard method 4500-S2-
7. Dissolved Oxygen value is average of weekly measurements

FIGURE 1
Site Location Map

Barton & Loguidice

1 inch = 2,000 feet

Peter Cooper Site

Site Location Map

Erie and Cattaraugus Counties March 2020 New York

Figure 1

-

Project No. 2310.001

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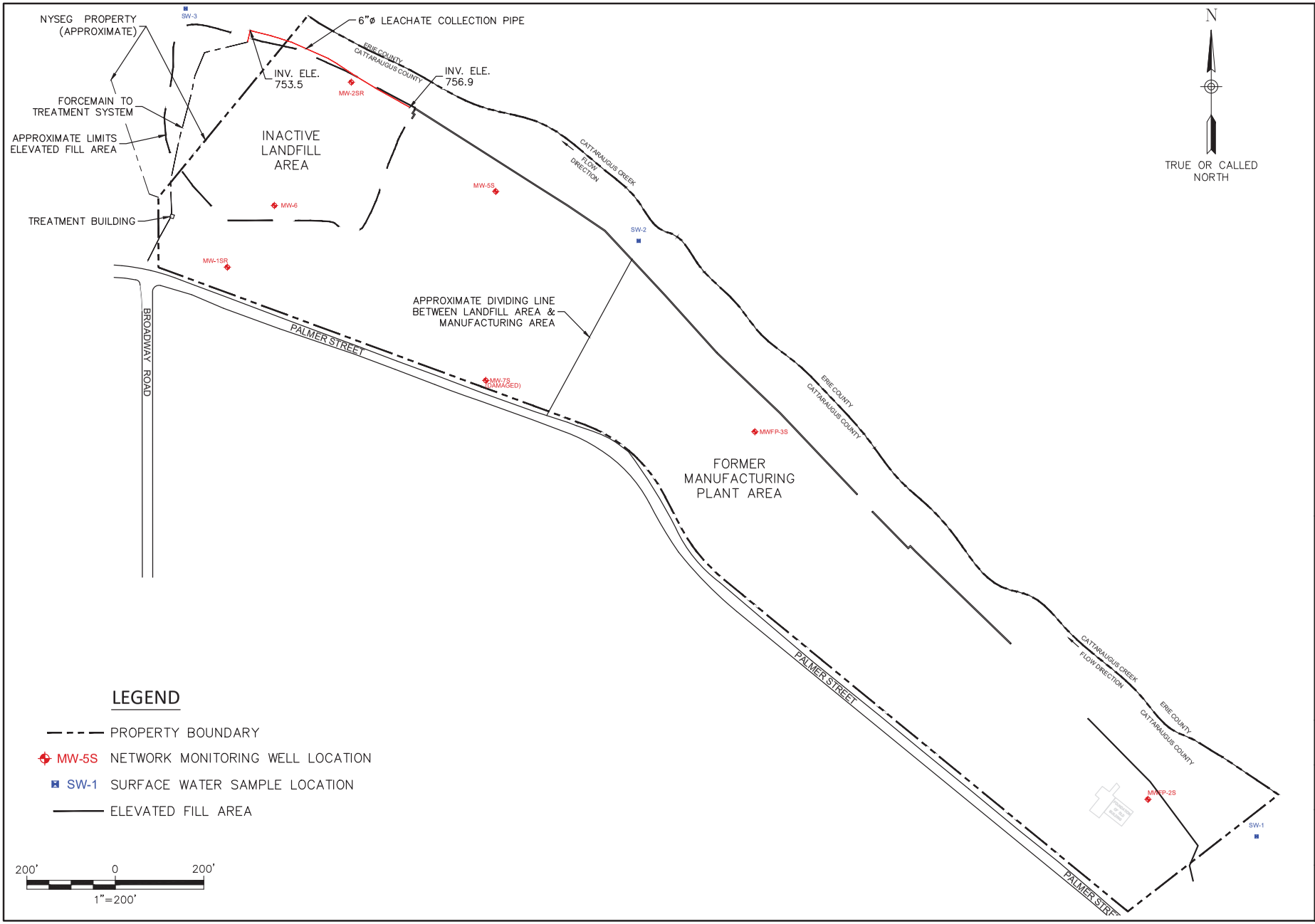
FIGURE 2
Site Plan



VILLAGE OF GOWANDA
PETER COOPER GOWANDA SITE
CATTARAUGUS COUNTY, NEW YORK

SITE PLAN

Barton & Loguidice

Date	MARCH 2020
Scale	AS SHOWN
Figure Number	2
Project Number	2310.001.001

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APPENDIX A
2020 Groundwater Sampling and Site Inspection Report and Photos

Post-Remedial Groundwater Monitoring & Maintenance Summary Report

Peter Cooper Site (Zoar Valley Gateway Park)

Gowanda, New York

rev. 1

Prepared for

Gowanda Area Redevelopment Corporation

Gowanda, New York

October 2022

Barton&Loguidice

Peter Cooper Gowanda Site
(Zoar Valley Gateway Park)
Gowanda, New York

Post-Remedial Groundwater Monitoring & Maintenance Summary Report
2021 Annual Event
rev. 1

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Prepared For:

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1.0 INTRODUCTION

Barton & Loguidice DPC (B&L) has prepared this report of the results of the Every-five-quarters post-remedial groundwater monitoring event at the Peter Cooper Landfill Site in Gowanda, New York (Figure 1). A monitoring and maintenance summary for the engineering controls (landfill cover system and creek bank erosion controls) is also included in this report. The work was performed in accordance with the approved Post-Remedial Operation, Maintenance and Monitoring (OM&M) Plan (Benchmark Environmental and Engineering Science, October 2010). Groundwater and surface water monitoring requirements are presented in Table 1.

2.0 FIELD SAMPLING PROCEDURE

On June 23 2021, B&L staff collected a round of static water level measurements from four of the monitoring wells shown on Figure 2 (two wells, MW-2SR and MW-7S were dry); measurements and groundwater elevations are summarized on Table 2. Groundwater samples were collected from on-site monitoring wells MW-1SR, MW-5S, MWFP-2S, and MWFP-3S. At the USEPA's request (per the 2015 CERCLA 5 Year review report) samples were collected from MW-1SR in lieu of MW-2SR due to continued dry conditions at the MW-2SR location. Surface water samples were collected from SW-1, SW-2, and SW-3.

The monitoring wells were sampled using a peristaltic pump with dedicated tubing (except for MW-5 which was sampled with a Monsoon® submersible pump and dedicated tubing) following low-flow groundwater purging and sampling procedures. Field measurements for pH, Eh, specific conductance, temperature, turbidity, and visual/olfactory observations were recorded and monitored during purging. Purging was considered complete when pH, specific conductivity, and temperature stabilized; and the turbidity measured below or stabilized above 50 NTU. Stability is defined as the variation between field measurements of 10 percent or less with no overall upward or downward trend in the measurements. Once the field parameters stabilized, groundwater samples were collected in laboratory-supplied pre-preserved sample bottles. The submersible pump was decontaminated using Alconox and water following sample collection activities at each well.

The surface water samples from SW-1, SW-2, and SW-3 were collected by slowly immersing a sample jar into the water. The contents of the collection jar were then transferred to laboratory-supplied pre-preserved bottles for analysis. Field measurements for pH, Eh, specific conductance, temperature, turbidity, and visual/olfactory observations were also recorded.

Attachment A includes sample collection logs. All water samples were cooled to 4^{o}C in the field and transported, under chain-of-custody command, to Test America Laboratories, Inc. in Amherst, NY for analysis per Table 1.

3.0 ANALYTICAL RESULTS

Attachment B includes the analytical data package for the June 23 2021 sampling event. Compounds detected above method detection limits are shown on Table 3 with their associated sample concentrations. New York State Class "GA" Groundwater Quality Standards and Guidance Values and Class "C(T)" surface water quality standards (collectively referred to herein as the "standards") per NY State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 are presented for comparison. Concentrations exceeding the respective standards are highlighted.

As indicated on Table 3, all the monitored parameters were reported as non-detect or below the ground water quality standard at all the groundwater sampling locations with few minor exceptions where slight exceedances of the standards were reported. These were limited to total manganese at MW-1SR (upgradient well, with the highest concentration), MW-5S, MWFP-2S, and MWFP-3S, and ammonia in MW-5S, MWFP-2S, and MWFP-3S.

An historical summary of the analytical data is provided in Table 4.

4.0 DATA QUALITY

Site-specific quality control (QC) sampling during this event included the collection of one blind duplicate sample collected from MW-5S, and one matrix spike/matrix spike duplicate (MS/MSD) sample collected from MW-1SR for VOC and total metal analyses. Blind duplicate data was consistent with primary sample data with the exception of higher VOC detections (with VOC detections in the blind duplicate still below Class GA standards). The MS/MSD laboratory recoveries were within acceptable limits with the exception of in one sample (MW-1SR) the MS/MSD recovery was outside acceptance limits for trichloroethane and sulfide (neither compound was detected in MW-1SR).

5.0 GROUNDWATER ELEVATION DATA

Groundwater monitoring included a round of static water level measurements from seven monitoring wells across the site (see Table 2). An isopotential map representing the shallow groundwater was prepared from the June 23, 2021 depth-to-groundwater measurements and is presented as Figure 3. Based on those measurements, shallow groundwater migrates north westerly towards Cattaraugus Creek, which is consistent with observations recorded during the site Remedial Investigation.

6.0 ANNUAL INSPECTION

B&L performed the annual inspection of the remedy on December 22, 2021. A completed inspection form is provided in Attachment C. A log of photos taken during the inspection is provided in Attachment D.

6.1 ELEVATED FILL SUBAREA AND BANK PROTECTION COVER MONITORING

A post remedial site inspection of the Elevated Fill Subarea was performed during the groundwater monitoring event. The inspection report indicated no irregularities or changes to the property access or security. The gas-vent system is intact and operational with no objectionable odors noted. The soil cover system and vegetative cover remain intact with no evidence of erosion, burrowing, vegetative stress, etc. Similarly, riprap erosion control remains in place with no visual or olfactory evidence of leachate breakout.

6.2 LEACHATE/ GROUNDWATER COLLECTION AND PRETREATMENT SYSTEM

The leachate and groundwater collection and pretreatment system are monitored by the Gowanda Area Redevelopment Corporation (GARC), which is the current property owner. A summary of the pretreatment system monitoring results is presented in the annual report.

One of the two pumps in the collection system became disabled in November. However, the second pump continued operating and groundwater collection continued unimpeded. The disabled pump is scheduled to be replaced in early 2022.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The data indicate few exceedances of the standards with no adverse impact from the site to Cattaraugus Creek. The remedy is functioning as intended and remains protective of human health and the environment.

Groundwater will continue to be collected once every 15 months to allow for evaluation of seasonal variability in the data. Inspections will continue to be performed annually to verify the integrity of the cell cover and gas venting system.

Tables

TABLE 1
GROUNDWATER & SURFACE WATER MONITORING PLAN
Peter Cooper Gowanda Site
Gowanda, New York

Sample Location	Est. Number of Samples per Event	Parameters	Frequency
Upgradient Monitoring Well			
MW-7S	1	TCL VOCs, Total Metals[2] Field Measurements[3] Water Quality Parameters[4]	Annually
FMPA Monitoring Network Wells (water level and quality)			
MWFP-2S	1	TCL VOCs (chlorinated aliphatics only) Total Metals[2] Field Measurements[3]	Annually
MWFP-3S	1		
ILA Monitoring Network Wells (water level and quality)			
MW-1SR	1	TCL VOCs Total Metals[2] Field Measurements[3] Water Quality Parameters[4]	Annually
MW-2SR[5]	1		
MW-5S	1		
QA/QC Samples[1]			
Trip Blank	1	TCL VOCs	Annually
Blind Duplicate	1	TCL VOCs Total Metals[2]	Annually
Matrix Spike	1		
Matrix Spike Duplicate	1		
Monitoring Network Surface Water			
SW-1	1	TCL VOCs Total Metals[2] Field Measurements[3] Water Quality Parameters[4]	Annually
SW-2	1		
SW-3	1		

Notes:

1. QA/QC samples will be collected at a frequency of 1 per 20 for each matrix.
2. Total metals include: arsenic, chromium, hexavalent chromium, manganese; if field measured turbidity is greater than 50 NTU, dissolved metals will also be collected.
3. Field measurements include: pH, temperature, specific conductance, turbidity, Eh
4. Water quality parameters include: ammonia, hardness, chloride, total sulfide.
5. Due to persistent dry conditions at MW-2SR, samples have instead been collected from MW-1SR per USEPA request in the 2015 fiv

Acronyms:

FMPA = Former Manufacturing Plant Area of the Site

ILA = Inactive Landfill Area of the Site TCL = Target Compound List

VOCs = Volatile Organic Compounds

TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS
June 2021 Annual Monitoring Event Peter Cooper Gowanda Site
Gowanda, New York

Location	TOR Elevation	6/23/2020	
	(fmsl)	DTW (fbTOR)	GWE (fmsl)
MW-7S	787.77	DRY	DRY
MWFP-2S	786	10.52	775.48
MWFP-3S	780.69	9.71	770.98
MW-2SR	770.93	DRY	DRY
MW-5S	781.16	13.12	768.04
MW-1SR	779.62	8.62	771

Notes:

1. DTW = depth to water
2. fbTOR = feet below top of riser
3. fmsl = feet above mean sea level
4. GWE = groundwater elevation
5. TOR = top of riser

TABLE 3

SUMMARY OF GROUNDWATER ANALYTICAL DATA

June 2021 Sampling Event
Peter Cooper Gowanda Site

Gowanda, NY

PARAMETER[1]	GWQS[2,3] Class "GA" Groundwater Standard	GWQS[2,3] Class "C" (T) Surface Water Standard	MW-1SR		MW-5S		MW-7S	MW-2SR [4]	MWFP-2S		MWFP-3S		SW-1	SW-2	SW-3	Blind Dup[5]
Volatile Organic Compounds (VOCs) - (ug/L)																
1,1,1-Trichloroethane	5	--	ND F1		ND		DRY	DRY	ND		ND		ND	ND	ND	1.2
1,1-Dichloroethane	5	--	ND		ND		DRY	DRY	ND		0.67 J		ND	ND	ND	ND
2-Butanone (MEK)	50	50	ND		ND		DRY	DRY	ND		ND		ND	ND	ND	ND
Acetone	50	--	ND		ND		DRY	DRY	ND		ND		ND	ND	ND	ND
Chloroform	7	--	ND		ND		DRY	DRY	ND		ND		ND	ND	ND	ND
cis-1,2-Dichloroethene	5	--	ND		ND		DRY	DRY	ND		4.6		ND	ND	ND	ND
Methylene chloride	5	--	ND		ND		DRY	DRY	ND		ND		ND	ND	ND	ND
Tetrachloroethene	5	1	ND		ND		DRY	DRY	ND		1.9		ND	ND	ND	4.8
Trichloroethene	5	40	ND		ND		DRY	DRY	ND		1.0		ND	ND	ND	1.7
Total Metals (mg/L)																
Arsenic - Total	0.025	0.15	ND		ND		DRY	DRY	ND		ND		ND	ND	ND	ND
Chromium - Total	0.05	Note 6	ND		0.0031 J		DRY	DRY	0.01		0.0015 J		ND	0.0018 J	0.0012 J	0.0029 J
Manganese - Total	0.3	0.3	3.7 B		1.2 B		DRY	DRY	0.4 B		2.2 B		0.042 B	0.044 B	0.040 B	1.2 B
General Chemistry (mg/L)																
Ammonia (as N)	2	0.035 [7]	0.99		6.2		DRY	DRY	6.6		17.0		ND	ND	ND	6.2
Chloride	250	--	4.3		3		DRY	DRY	8.6		18.4		26.7	26.9	27.2	3.1
Total Sulfide	50 (GV)	--	ND F1		ND		DRY	DRY	ND		ND		ND	ND	ND	ND
Hardness as calcium carbonate	--	--	420		1450		DRY	DRY	570		420		164	172	152	1500
Field Measurements (Units as Indicated)																
Sample Information			*Initial*	*Final*	*Initial*	*Final*	DRY	DRY	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Initial*	*Initial*	
pH (units)	6.5 - 8.5	6.5 - 8.5	7.19	7.11	6.9	6.94	DRY	DRY	7.46	7.45	7.26	7.06	7.33	8.24	8.45	
Temperature (oC)	--	--	15.7	13.7	14.1	12.7	DRY	DRY	14.6	12.4	13.5	12	16.6	17.4	18.8	
Specific Conductance (uS)	--	--	673	788	2338	2338	DRY	DRY	1053	1023	909	1013	382	372	372	
Turbidity (NTU)	--	--	43.1	1.41	38.9	4.95	DRY	DRY	7.22	0.56	30.4	3.68	20.5	19.1	16	
ORP (mV)	--	--	-43	-36	-72	-64	DRY	DRY	-128	-99	-113	-30	141	200	175	

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC Division of Water Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations - GA Class (TOGS 1.1.1)
3. Values per NYSDEC Division of Water-Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions (TOGS1.1.1)- Class C (T).
4. MW-2SR was not sampled as well was dry.
5. Blind Duplicate was collected from MW-5S
6. Class C Standard (ug/l) caculated as: (0.86) exp (0.819 [ln ppm hardness] + 0.6848)
7. Value is pH and temperature dependent-per TOGS 1.1.1 lookup table.

Definitions:

ND = Parameter not detected above laboratory detection limit.

NA = not analyzed for these parameters

"--" = No value available for the parameter.

J = Estimated value; result is less than the sample quantitation limit but greater than zero. H= Sample analyzed outside of laboratory method holding time.

F1 = MS/MSD Recovery is outside acceptance limits.

GV = Guidance Value

Highlighted = Result exceeds GWQS.

TABLE 4
HISTORICAL SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL DATA
Peter Cooper Gowanda Site
Gowanda, NY

PARAMETER[1]	GWQS[2] Class "GA" Groundwater Standard	MW-1SR						MW-5S												MW-7S											
		10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21	6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/23/14	10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21	6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/23/14	10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21
Volatile Organic Compounds (VOCs) - (ug/L)																															
1,1,1-Trichloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
1,1-Dichloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
1,1-Dichloroethene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
2-Butanone (MEK)	**50**	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Acetone	**50**	ND	ND	38	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.6 J	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Carbon disulfide	**--**	ND	ND	0.49 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Carbon tetrachloride	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Chloroform	**7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
cis-1,2-Dichloroethene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Methylene chloride	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Tetrachloroethene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.42 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
trans-1,2-Dichloroethene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Trichloroethene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Total Metals (mg/L)																															
Arsenic - Total	**0.025**	ND	ND	0.018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.014	0.02	0.11	0.015	ND	**0.043**	ND	**0.028**	Dry	**0.031**	ND	Dry
Chromium - Total	**0.05**	ND	ND	**0.092**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0025 J	0.0031 J	ND	ND	ND	ND	ND	0.023	ND	ND	Dry	ND	0.0013 J	Dry
Iron - Total[4]	**0.3**	NA	NA	NA	ND	NA	NA	**24.7**	ND	ND	**15.1**	NA	NA	NA	NA	NA	NA	NA	NA	**8.6**	ND	ND	**7.3**	NA	NA	NA	NA	Dry	NA	NA	Dry
Manganese - Total	**0.3**	**2.0**	**2.8**	**5.2**	**6.3**	**2.9**	**3.7**	**0.79**	**1**	**0.96 B7**	**1.2**	**0.88**	**0.79**	**1.3**	**1.2**	**1.3**	**0.93**	**0.77**	**1.2**	**0.71**	**1.5**	**0.9**	**1.8**	**1.2**	**4**	**0.66**	**2.2**	Dry	**1.3**	0.066	Dry
Soluble Metals (mg/L)																															
Manganese - Dissolved	**0.3**	0.17	NA	0.17	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	ND	NA	Dry
General Chemistry (mg/L)																															
Ammonia (as N)	**2**	0.26	1.5	1.7	0.97	0.88	0.99	**3.5**	**10.2**	**10.2**	**9.3**	**9.4**	**3.5**	**10.8**	**7.8**	**11**	**7.5**	**3.9**	**6.2**	**10.8**	**13.9**	**20.3**	**17.7**	**18.1**	**11.7**	**3.7**	**23**	Dry	**14.3**	1.3	Dry
Chromium (hexavalent)	**0.05**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	Dry
Chloride	**250**	8.5	7	6.5	8	5	4.3	6.4	8.7	5.2	3.1	3.6	2.8	8.3	9.6	8.3	11.5	5.4	3	19.1	33.4	42.4	39.5	35.5	25.3	32.5	65.5	Dry	29.8	5.4	Dry
Hardness as calcium carbonate	**--**	470	396	425	416	388	42	940	900	1300	610	920	1100	880	620	1300	1260	950	1450	473	710	530	780	680	NA	340	NA	Dry	456	280	Dry
Field Measurements (Units as Indicated)																															
Sample Information		*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Dry*	*Final*	*Final*	*Dry*
pH (units)	**6.5 - 8.5**	6.64	6.91	6.99	6.88	6.6	7.11	7.1	6.85	6.57	6.74	6.81	7.01	6.77	6.78	6.77	6.89	6.17	6.94	7.01	6.94	(8)	7.03	6.69	6.8	6.4	NA	Dry	7.13	**6.48**	Dry
Temperature (oC)	**--**	14.9	14.1	16.5	18.7	6.6	13.7	18.9	10.9	12.8	12.8	13.6	17.1	13.6	14.3	15.3	18.4	9.6	12.7	17.3	9.0	(8)	8.9	12.5	19.9	13.5	NA	Dry	18.3	6.6	Dry
Specific Conductance (uS)	**--**	815.4	724.7	749.9	816	638	788	1742	1592	2015	1135	1712	1773	1657	1239	2046	2483	1530	2338	992.1	1349	(8)	1547	1413	2153	856.2	NA	Dry	1228	502	Dry
Turbidity	**--**	18.7	43.9	>1000	8	3.15	1.41	17	8.49	8.13	30	20.2	14.9	17.3	18.9	4.17	12	46.3	4.95	12.1	1.69	(8)	10	9.82	100	41.5	NA	Dry	21	24.8	Dry
ORP (mV)	**--**	19	-15	-72	-54	187.6	-36	-130	-55	-80	-62	-30	-66	-72	-52	-145	-140	-23.3	-64	-95	-31	(8)	57	92	80	37	NA	Dry	-86	294	Dry

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC Division of Water Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations - GA Class (TOGS 1.1.1)
3. MW-2SR dry, no sample collected.
4. Iron samples were inadvertently collected during the events prior to June 2013; iron is not a required analyte per the approved post-remedial groundwater monitoring plan.

Definitions:

ND = Parameter not detected above laboratory detection limit.
NA = not analyzed for these parameters
"--" = No value available for the parameter.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B7 = Detected in method blank at or above method reporting limit. Concentration was 10 times above the concentraion found in the blank.
H= Sample analyzed outside of laboratory method holding time.
Bold = Result exceeds GWQS.

TABLE 4
HISTORICAL SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL DATA
Peter Cooper Gowanda Site
Gowanda, NY

PARAMETER[1]	GWQS[2] Class "GA" Groundwater Standard	MW-2SR [3]										MWFP-2S												MWFP-3S											
		6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/24/13	10/30/15	11/16/16	3/13/20	6/23/21	6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/23/14	10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21	6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/23/14	10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21
Volatile Organic Compounds (VOCs) - (ug/L)																																			
1,1,1-Trichloroethane	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1	1.2	1.3	2.8	3.2	2.1	3.5	1.3	1.3	2.9	1.1	ND
1,1-Dichloroethane	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.91 J	ND	0.82 J	ND	ND	ND	0.4 J	1.2	2.5	1.7 J	ND	0.67 J
1,1-Dichloroethene	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3 J	ND	ND	ND	ND	ND
2-Butanone (MEK)	**50**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	**50**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	**--**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.44 J	ND	ND	0.73 J	ND	ND	ND	ND	ND
Chloroform	**7**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	0.44 J	ND	0.69 J	0.73J	0.45 J	2.6 J	0.63 J	ND	1.3 J	ND	ND
cis-1,2-Dichloroethene	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	0.91 J	2.8	ND	ND	1.6	1.2	**5.4**	**6.5**	**8.1**	ND	4.6
Methylene chloride	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4 J	ND	ND
Tetrachloroethene	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	0.77 J	ND	ND	ND	ND	**7.9**	**6.9**	3.3	**13**	**12**	**10**	**9.5**	**5.9**	3.8	**8.5**	4.7	1.9
trans-1,2-Dichloroethene	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.23 J	ND	ND	ND
Trichloroethene	**5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	2.4	2.3	1.8	2.7	1.9	3.8	2.3	1.7	3.2	1.7	1
Total Metals (mg/L)																																			
Arsenic - Total	**0.025**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	**0.026**	0.025	0.018	0.015	0.014	ND	ND	ND	ND	ND	0.0086 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium - Total	**0.05**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	0.018	0.041	**0.056**	0.01	0.0092	0.0099	0.038	0.049	**0.054**	0.02	0.012	0.01	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0065	0.0021 J	0.0015 J
Iron - Total[4]	**0.3**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	**8.0**	ND	ND	**5.2**	NA	NA	NA	NA	NA	NA	NA	NA	**5.9**	ND	ND	**1.5**	NA	NA	NA	NA	NA	NA	NA	NA
Manganese - Total	**0.3**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	**0.5**	**0.36**	**0.43 B7**	**0.57**	**0.44**	**0.42**	0.3	**0.5**	**0.4**	**0.37**	**0.38**	**0.4**	**0.64**	0.069	**2.5 B7**	0.15	0.25	**1.2**	0.28	**0.56**	**5.2**	**6.6**	0.02	**2.2**
Soluble Metals (mg/L)																																			
Manganese - Dissolved	**0.3**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry (mg/L)																																			
Ammonia (as N)	**2**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	**3.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.6**	**6.6**	**3.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	**17**
Chromium (hexavalent)	**0.05**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.021 H	ND	ND
Chloride	**250**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	22.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2	8.6	38.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.5	ND
Hardness as calcium carbonate	**--**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	873	NA	NA	NA	NA	NA	NA	NA	NA	NA	536	570	690	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	340	420
Field Measurements (Units as Indicated)																																			
Sample Information		*Dry*	*Dry*	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	Final	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*	*Final*
pH (units)	**6.5 - 8.5**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	7.55	7.24	7.42	7.1	7.46	7.29	7.14	7.26	7.32	7.13	6.55	7.5	7.24	7.1	6.72	7.22	6.68	7.1	6.69	6.68	6.72	6.75	**6.19**	7.06
Temperature (oC)	**--**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	17.3	10.7	13.7	11.5	14.9	17.5	12.6	14.2	15	19.2	9.3	12.4	16.7	8.5	14.6	9.6	13.8	14.6	13.3	14.2	15.2	17.7	6.2	12
Specific Conductance (uS)	**--**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	1212	1207	1192	1220	1053	970	1210	1224	982.8	1121	950	1023.00	1290	550.9	1881	771	842.1	1187	744.9	1002	1487	1850	642	1013
Turbidity	**--**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	47	8.14	6.14	3.33	20.7	3.94	8.42	22.5	10.3	4	6.7	0.56	25.5	8.78	7.46	7.5	18.5	13.9	9.91	5.79	2.7	16	2.49	3.68
ORP (mV)	**--**	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-145	-27	42	-76	-42	-142	-30	-59	-103	-95	-58.4	-99	-40	35	32	429	106	132	98	43	7	-61	222	-30

Notes:

1. Only those parameters detected at a minimum of one sample location ar
   all other compounds were reported as non-detect.
2. Values per NYSDEC Division of Water Ambient Water Quality Standards
   Groundwater Effluent Limitations - GA Class (TOGS 1.1.1)
3. MW-2SR dry, no sample collected.
4. Iron samples were inadvertently collected during the events prior to June

Definitions:

ND = Parameter not detected above laboratory detection limit.
NA = not analyzed for these parameters
"--" = No value available for the parameter.
J = Estimated value; result is less than the sample quantitation limit but grea
B7 = Detected in method blank at or above method reporting limit. Concentr
H= Sample analyzed outside of laboratory method holding time.
Bold = Result exceeds GW

TABLE 4
HISTORICAL SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL DATA
Peter Cooper Gowanda Site
Gowanda, NY

PARAMETER[1]	GWQS[2]: Class "C" (T) Surface Water Standard	Sample Location																																			
		SW-1													SW-2													SW-3											
		6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/23/14	10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21	6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/23/14	10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21	6/23/11	1/11/12	6/25/12	1/10/13	6/25/13	6/23/14	10/30/15	11/16/16	10/27/17	10/10/18	3/13/20	6/23/21
Volatile Organic Compounds (VOCs) - (ug/L)																																					
1,1,1-Trichloroethane	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	--	3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Metals (mg/L)																																					
Arsenic - Total	0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium - Total	Note 3	0.016	ND	ND	0.0044	ND	ND	ND	ND	ND	ND	ND	ND	0.017	ND	ND	ND	ND	ND	0.0042	ND	ND	ND	ND	0.002 J	0.024	ND	ND	ND	ND	ND	0.0004	ND	ND	ND	ND	0.001 J
Hexanalent Chromium - Total	0.05	ND	ND	ND	ND	ND	ND	ND	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron - Total	0.3	**19.5**	ND	ND	**1.1**	NA	NA	NA	NA	NA	NA	NA	NA	**22**	ND	ND	**0.95**	NA	NA	NA	NA	NA	NA	NA	NA	**32.1**	ND	ND	**1**	--	--	NA	NA	NA	NA	NA	NA
Manganese - Total	0.3	**0.35**	0.029	0.032 B7	0.044	0.01	0.031	0.031	0.018	0.015	0.052	0.02	0.042	**0.44**	0.027	0.027	0.033	0.0078	0.017	0.091	0.017	0.011	0.051	0.066	0.044	0.62	0.27	0.024	0.033	0.025	0.017	0.18	0.017	0.011	0.046	0.066	0.04
Dissolved Metals (mg/L)																																					
Iron - Soluble		ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese - Soluble	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	0.014	NA	NA	0.0035	NA	NA
General Chemistry (mg/L)																																					
Ammonia (as N)	0.035[4]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.3**	ND	ND	ND	ND	ND	ND	0.034	ND	ND	0.032	ND	**0.13**	ND	ND	**0.047**	ND	ND
Chloride	--	22	23.7	30.2	30.2	31.3	33.7	22.1	33.4	30	20.4	12.5	26.7	21.5	23.5	29.9	29.3	31.4	33.4	20	33.1	29.9	20.3	21.4	26.9	24.5	22.7	29.7	29.4	39.3	33.2	25.2	32.8	30.1	20	21.6	27.2
Hardness as calcium carbonate	--	139	140	160	144	172	180	136	184	176	152	340	164	189	150	164	140	180	180	120	196	176	148	120	172	194	140	160	142	132	180	152	176	174	160	116	152
Field Measurements (Units as Indicated)																																					
Sample Information		*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*	*Initial*
pH (units)	6.5 - 8.5	8.17	8.08	**8.75**	7.93	8.24	8.21	7.85	8.08	8.46	8.67	8.36	7.33	8.16	8.29	8.44	7.21	8.54	8.32	7.96	7.82	8.32	8.45	8.34	8.24	8.51	7.91	8.53	8.14	8.41	8.42	7.12	7.95	8.4	8.71	8.28	8.45
Temperature (oC)	--	26.2	4.1	21.5	3.3	23.5	24.3	10.2	6.3	10.1	21	6.9	16.6	23	3.3	22.8	2.6	24.8	23.8	10.1	6.3	10.5	23	6.8	17.4	23.9	3.8	23.7	2.7	25.9	23.9	10.2	6.1	13.9	21.8	6.9	18.8
Specific Conductance (uS)	--	385.9	326.4	408.6	380	418.2	440	326.1	430.7	412.3	516	273	382	316.7	328.7	405.8	385	416.2	421	287.5	427.1	438.7	445	274.2	372	312.6	330	402.9	347	464.1	500	373	427.7	410.9	425.0	278.9	372.0
Turbidity	--	405	21.6	41.9	19.7	21.3	10	117	6.14	6.04	69	51.6	20.5	626	23.8	31.1	23	27.4	10.2	140	2.99	5.9	73	52.6	19.1	934	20.6	32	34	24.3	11	116	4.86	6.96	57.00	59.50	16.00
ORP (mV)	--	-105	7	2	103	80	58	11	-20	-38	+37	206	141	-75	16	18	117	-14	107	77	79	-4	-15	228	200	43	25	50	104	37	92	35	46	-131	-16	254	175

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC Division of Water-Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS1.1.1)- Class C (T).
3. Class C Standard (ug/l) caculated as: (0.86) exp (0.819 [ln ppm hardness] + 0.6848)
4. Value is pH and temperature dependent-per TOGS 1.1.1 lookup table.

Definitions:

ND = Parameter not detected above laboratory detection limit.
NA = not analyzed for these parameters
NS = not sampled
"--" = No value available for the parameter.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
Bold = Result exceeds GWQS.

Figures

Barton & Loguidice

1 inch = 2,000 feet

Peter Cooper Site

Site Location Map

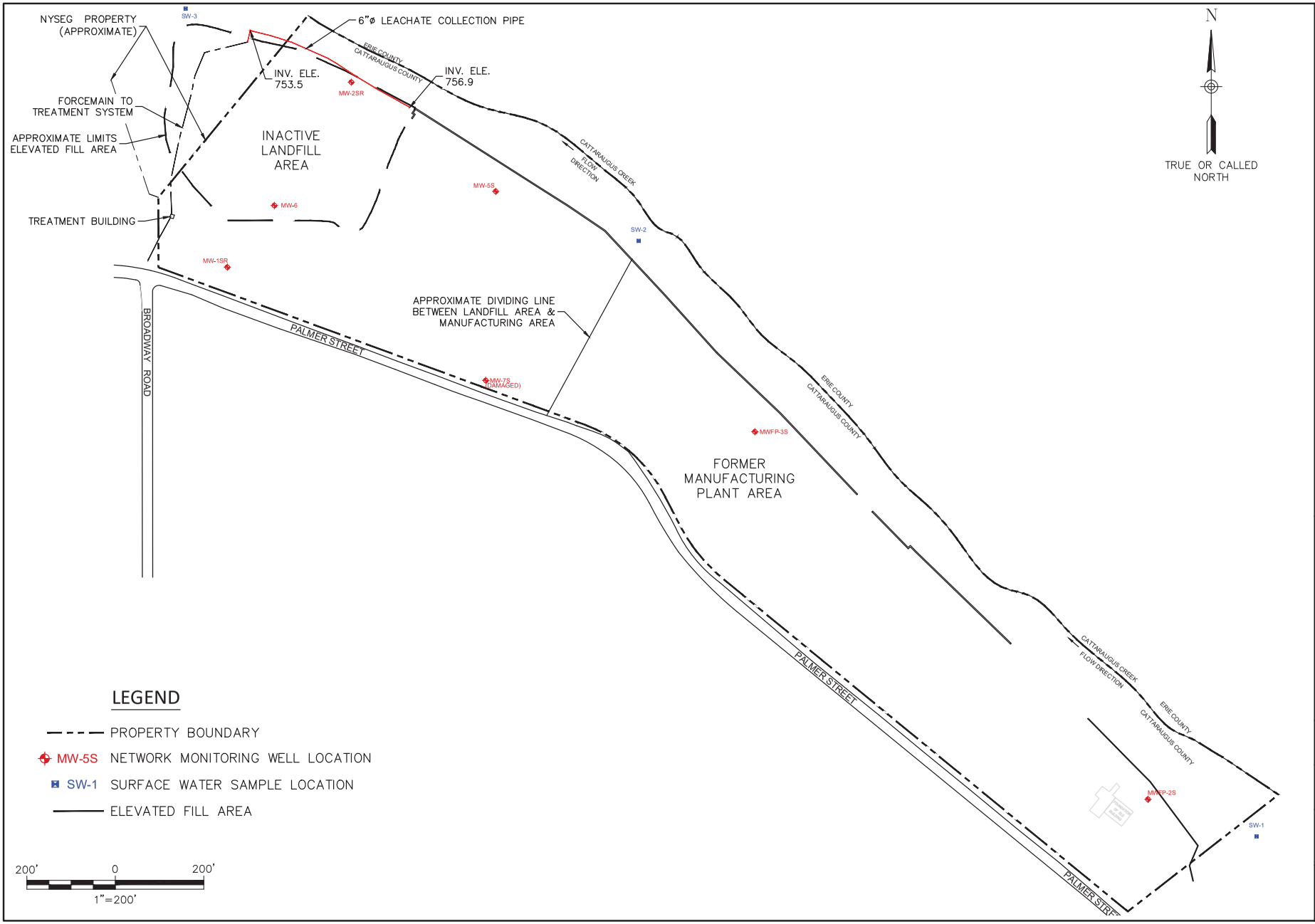
Erie and Cattaraugus Counties March 2020 New York

Figure 1

-

Project No. 2310.001

Path: K:\Projects\2300\2310.001\Figure 1_Site Location Map.mxd



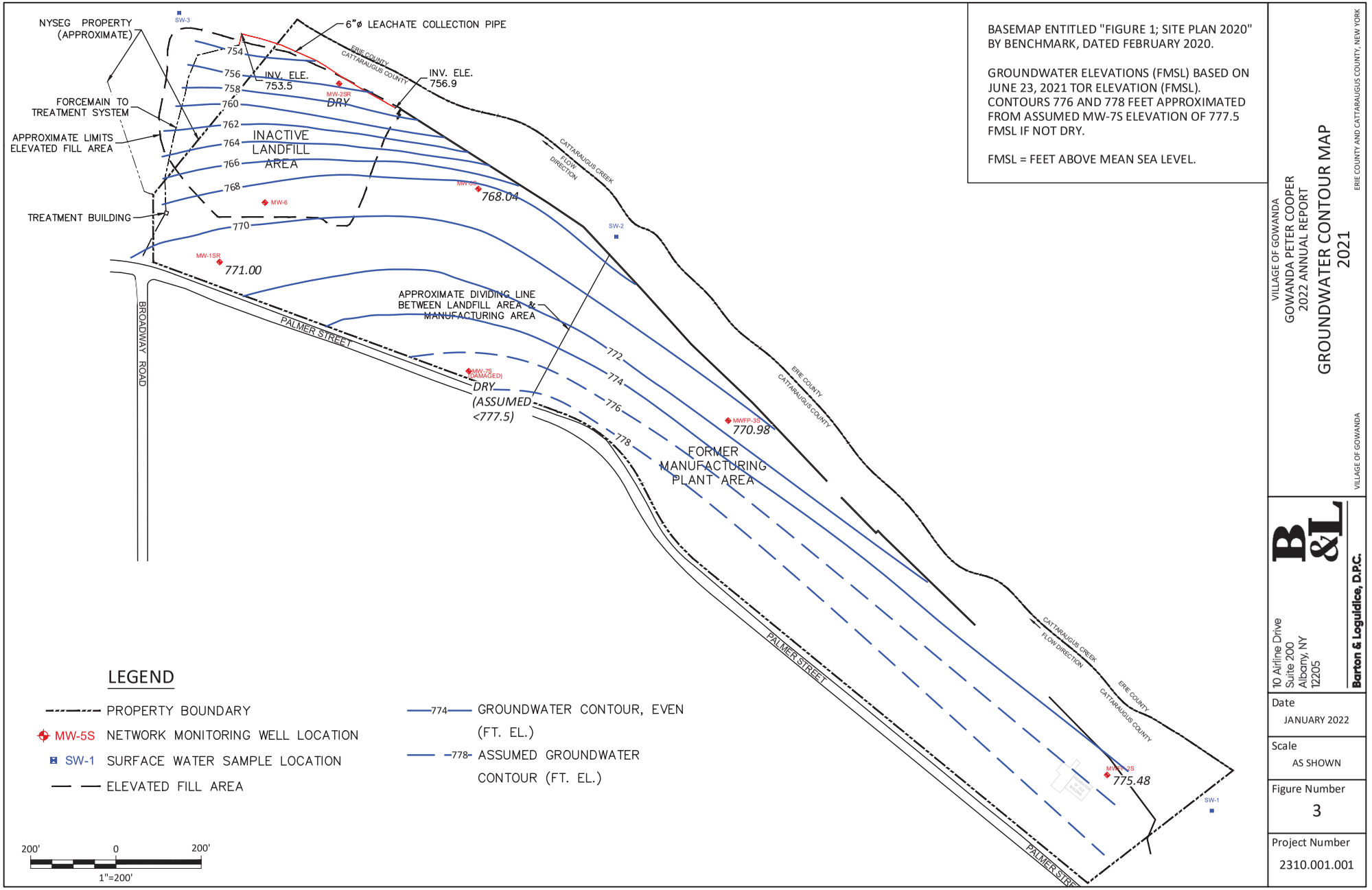
VILLAGE OF GOWANDA
PETER COOPER GOWANDA SITE
CATTARAUGUS COUNTY, NEW YORK

SITE PLAN

Barton & Loguidice

Date	MARCH 2020
Scale	AS SHOWN
Figure Number	2
Project Number	2310.001.001

Plotted: Mar 19, 2020 – 1:20PM SYR By: bas
Z:\BL-Vault\D2\182174D2-1C71-4823-8927-99D5C4054147\0\1990000-1990999\1990149\LL\2310.001.001 – Fig 2 SITE PLAN (ID 1990149).dwg



BASEMAP ENTITLED "FIGURE 1; SITE PLAN 2020" BY BENCHMARK, DATED FEBRUARY 2020.

GROUNDWATER ELEVATIONS (FMSL) BASED ON JUNE 23, 2021 TOR ELEVATION (FMSL). CONTOURS 776 AND 778 FEET APPROXIMATED FROM ASSUMED MW-7S ELEVATION OF 777.5 FMSL IF NOT DRY.

FMSL = FEET ABOVE MEAN SEA LEVEL.

VILLAGE OF GOWANDA
GOWANDA PETER COOPER
2022 ANNUAL REPORT

GROUNDWATER CONTOUR MAP 2021

ERIE COUNTY AND CATTARAUGUS COUNTY, NEW YORK

VILLAGE OF GOWANDA

B&L
Barton & Loguidice, D.P.C.
10 Airline Drive
Suite 200
Albany, NY
12205

Date
JANUARY 2022

Scale
AS SHOWN

Figure Number
3

Project Number
2310.001.001

Plotted: Jan 05, 2022 - 5:25PM By: bgh SYR
Z:\BL-Vault\ID2\18217AD2-1C71-4823-8927-99D5C4054147\0\2494000-2494999\2494213\LL\2310001 FIG3 GROUNDWATER CONTOUR MAP 2021 (ID 2494213).dwg

Attachment A
Sample Collection Logs

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FIELD SAMPLING DATA SHEET

SITE:	Gowanda Peter Cooper	**SAMPLE LOCATION:**	MW-1SR
CLIENT:	Village of Gowanda	**JOB #:**	2310.001.001
Weather Conditions:	Sunny	Temperature:	60's

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (fbTOR):	8.62	Sample Date:	6-23-21
Measured Well Depth (fbTOR):	11.83	Sample Time:	1313
Product Depth (fbTOR):	-	Sampled By:	TJB/BJM
Well Casing Diameter (inches):	2	Purge Method:	Peristaltic
Calculated Volume in Well Casing (gal.):	0.52		
Total Volume Purged (gal.):	1.25		
Depth to water when sampled:	9.16		

Stabilization Criteria:

pH	± 0.1 unit
SP. Cond.	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Purge water stabilization readings: Pumping Rate: Pressure (psi):

	Time	SWL (ft.)	Acc. Volume (gal.)	pH (std.)	Temp. (C)	Sp. Cond. (uS)	Turbidity (NTU)	DO (mg/L)	Orp (mV)	Appearance and Odor
1	1258	8.62	—	7.19	15.7	673	43.1	—	-43	hazy Bug Parts/Stale
2	1301	9.14	0.30	7.10	13.3	771	7.37	—	-36	Clear/Stale
3	1305	9.18	0.50	7.11	13.8	782	2.62	—	-17	Clear/no odor
4	1308	9.16	0.75	7.03	13.2	788	2.17	—	-5	Clear/no odor
5	1311	9.16	1.25	7.11	13.7	788	1.41	—	-16	Clear/no odor
6										
7										
8										
9										
10										
11										
12										

Sample Information:

S1	1311	9.16	1.25	7.11	13.7	788	1.41	—	-16	Clear/no odor
S2										

Samples Collected (Number/Type): 9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Delivered to: Eurofins Test America Date: Time:

COMMENTS: Low Flowrate 250mL/min MS/MSD TAKEN Lock needs oil/replace

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FIELD SAMPLING DATA SHEET

SITE:	Peter Cooper Gowanda	**SAMPLE LOCATION:**	~~MW-7S~~ MW-2SR
CLIENT:	Village of Gowanda	**JOB #:**	2310.001.001
Weather Conditions:		Temperature:	

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	
Measured Well Depth (feet)*:	
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	

*depth from measuring point

Measuring Point: Top of Riser
Measured by: TJB/BJM
Date:
Time:

PURGING METHOD

Equipment:

Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
Bladder Pump	[ ]	Foot Valve	[ ]	Peristaltic Pump	[ ]
Dedicated	[ ]	*Non-dedicated*	[ ]		

Calculated Volume Of Water To Be Purged (gallons): ____

Actual Volume of Water Purged (gallons): ____

Did well purge dry?	No	[ ]	Yes	[ ]
Did well recover?	No	[ ]	Yes	[ ]

Recovery Time:

Stabilization Criteria:	
pH	± 0.1 unit
SP. Cond.	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Purge water stabilization readings: Pumping Rate: Pressure (psi): N/A

	Time	SWL (ft.)	pH (std.)	Sp. Cond. (umhos/cm)	Temp. (C)	DO (mg/L)	Turb (NTU)	Orp (mV)	Sample Appearance
Initial									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
Sample									

DRY

SAMPLING METHOD

Equipment:

Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
Bladder Pump	[ ]	Foot Valve	[ ]	Peristaltic Pump	[ ]
Dedicated	[ ]	*Non-dedicated*	[ ]	Grab	[ ]

Sampled by: TJB Time: ____ Date: ____

SAMPLING DATA

Sampling Appearance

Color: ____ Sediment: ____
Odor: ____

Samples Collected (Number/Type):
9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Delivered to: Eurofins Test America Time: ____ Date: ____

COMMENTS: Well DRY @ Bottom → 13.59 FT Lock needs oil/replace

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FIELD SAMPLING DATA SHEET

SITE:	Gowanda Peter Cooper	**SAMPLE LOCATION:**	MW-5
CLIENT:	Village of Gowanda	**JOB #:**	2310.001.001
Weather Conditions:	Cloudy	Temperature:	60's

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (fbTOR):	13.12	Sample Date:	6-23-21
Measured Well Depth (fbTOR):	16.5	Sample Time:	1228
Product Depth (fbTOR):	-	Sampled By:	TJB/BJM
Well Casing Diameter (inches):	2	Purge Method:	Monsoon
Calculated Volume in Well Casing (gal.):	0.55		
Total Volume Purged (gal.):	2.50		
Depth to water when sampled:	13.37		

Stabilization Criteria:

pH	± 0.1 unit
SP. Cond.	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Purge water stabilization readings: Pumping Rate: Pressure (psi):

	Time	SWL (ft.)	Acc. Volume (gal.)	pH (std.)	Temp. (C)	Sp. Cond. (uS)	Turbidity (NTU)	DO (mg/L)	Orp (mV)	Appearance and Odor
1	1210	13.12	—	6.90	14.1	2338	38.9	—	-72	Brown/Solids/Stale
2	1213	13.24	0.75	6.93	13.4	2357	29.9	—	-62	Clear/Stale
3	1216	13.34	1.50	6.87	13.2	2343	21.2	—	-56	Clear/Stale
4	1219	13.34	1.75	6.94	12.8	2343	9.43	—	-57	Clear/Stale
5	1223	13.36	2.00	6.89	13.3	2343	7.42	—	-59	Clear/Stale
6	1226	13.37	2.50	6.94	12.7	2338	4.95	—	-64	Clear/Stale
7										
8										
9										
10										
11										
12										

Sample Information:

S1	1226	13.37	2.50	6.94	12.7	2338	4.95	—	-64	Clear/Stale
S2										

Samples Collected (Number/Type): +DUP
9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Delivered to: Eurofins Test America Date: Time:

COMMENTS:
DUP Taken
Lock needs oil/replace

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FIELD SAMPLING DATA SHEET

SITE:	Gowanda Peter Cooper	**SAMPLE LOCATION:**	MW-7S
CLIENT:	Village of Gowanda	**JOB #:**	2310.001.001
Weather Conditions:		Temperature:	

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____

Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (fbTOR):	10.25	Sample Date:	
Measured Well Depth (fbTOR):	10.25	Sample Time:	
Product Depth (fbTOR):	-	Sampled By:	TJB/BJM
Well Casing Diameter (inches):	2	Purge Method:	Peristaltic
Calculated Volume in Well Casing (gal.):			
Total Volume Purged (gal.):			
Depth to water when sampled:			

Stabilization Criteria:

pH	± 0.1 unit
SP. Cond.	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Purge water stabilization readings: Pumping Rate: Pressure (psi):

	Time	SWL (ft.)	Acc. Volume (gal.)	pH (std.)	Temp. (C)	Sp. Cond. (uS)	Turbidity (NTU)	DO (mg/L)	Orp (mV)	Appearance and Odor
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

Location DRY

Sample Information:

S1										
S2										

Samples Collected (Number/Type): 9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Deivered to: Eurofins Test America Date: Time:

COMMENTS: DRY @ 10.25 - no purge/sample

Lock needs oil/ Replace

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FIELD SAMPLING DATA SHEET

SITE:	Gowanda Peter Cooper	**SAMPLE LOCATION:**	MWFP-2S
CLIENT:	Village of Gowanda	**JOB #:**	2310.001.001
Weather Conditions:	Sunny	Temperature:	60's

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (fbTOR):	10.52	Sample Date:	6-23-21
Measured Well Depth (fbTOR):	14.09	Sample Time:	1040
Product Depth (fbTOR):	-	Sampled By:	TJB/BJM
Well Casing Diameter (inches):	2	Purge Method:	~~Monsoon~~ → Peristaltic
Calculated Volume in Well Casing (gal.):	2.26		
Total Volume Purged (gal.):	2.00		
Depth to water when sampled:	12.43		

Stabilization Criteria:

pH	± 0.1 unit
SP. Cond.	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Purge water stabilization readings: Pumping Rate: Pressure (psi):

	Time	SWL (ft.)	Acc. Volume (gal.)	pH (std.)	Temp. (C)	Sp. Cond. (uS)	Turbidity (NTU)	DO (mg/L)	Orp (mV)	Appearance and Odor
1	1017	10.52	—	7.46	14.6	1053	7.22	—	-128	clear w/SP. Stale odor
2	1022	11.16	0.5	7.39	12.8	1056	2.77	—	-109	clear / Stale
3	1025	11.48	1.0	7.38	13.0	1059	1.85	—	-105	clear / Stale
4	1028	11.72	1.25	7.42	12.7	1052	0.81	—	-89	clear / Stale
5	1032	11.98	1.50	7.42	12.7	1039	0.67	—	-100	clear / Stale
6	1035	12.21	1.75	7.44	12.6	1029	0.84	—	-100	clear / Stale
7	1038	12.43	2.00	7.45	12.4	1023	0.56	—	-99	clear / Stale
8										
9										
10										
11										
12										

Sample Information:

S1	1040	12.43	2.00	7.45	12.4	1023	0.56	—	-99	clear / Stale odor
S2										

Samples Collected (Number/Type): 9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Delivered to: Eurofins Test America Date: Time:

COMMENTS:
well hit by mower → well now has kink @ ground level - Monsoon no longer fits —
Sampled w/ peristaltic
Low Flow @ 275 ml/min → left in dedicated tubing Lock needs oil/replace

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FIELD SAMPLING DATA SHEET

SITE:	Gowanda Peter Cooper	SAMPLE LOCATION:	MWFP-3S
CLIENT:	Village of Gowanda	JOB #:	2310.001.001
Weather Conditions:	Sunny	Temperature:	60's

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ______
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (fbTOR):	9.71	Sample Date:	6-23-21
Measured Well Depth (fbTOR):	13.64	Sample Time:	1145
Product Depth (fbTOR):	-	Sampled By:	TJB/BJM
Well Casing Diameter (inches):	2	Purge Method:	Peristaltic
Calculated Volume in Well Casing (gal.):	0.64		
Total Volume Purged (gal.):	1.75		
Depth to water when sampled:	10.56		

Stabilization Criteria:

pH	± 0.1 unit
SP. Cond.	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Purge water stabilization readings: Pumping Rate: Pressure (psi):

	Time	SWL (ft.)	Acc. Volume (gal.)	pH (std.)	Temp. (C)	Sp. Cond. (uS)	Turbidity (NTU)	DO (mg/L)	Orp (mV)	Appearance and Odor
1	1117	9.71	—	7.26	13.5	909	30.4	—	-113	hazy Black floc Stale odor
2	1121	10.66	0.50	7.14	12.3	891	9.10	—	-64	clear w/ floc Stale
3	1125	10.68	0.75	7.05	11.7	920	7.00	—	-40	Clear / Stale
4	1128	10.65	1.00	7.03	11.8	951	5.58	—	-32	clear / Stale
5	1132	10.57	1.25	7.11	11.9	985	4.36	—	-46	clear / Stale
6	1135	10.56	1.45	7.04	11.9	990	3.66	—	-33	clear / no odor
7	1138	10.56	1.50	7.04	11.9	1003	4.87	—	-32	clear / no odor
8	1142	10.56	1.65	7.06	12.0	1013	3.68	—	-30	Clear / no odor
9										
10										
11										
12										

Sample Information:

S1	1142	10.56	1.65	7.06	12.0	1013	3.68	—	-30	Clear / no odor
S2										

Samples Collected (Number/Type): 9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Deivered to: Eurofins Test America Date: Time:

COMMENTS: Left in dedicated peristaltic tubing. Lock needs oil / replace
well needs new locking cap

Rev. 05/13 (MJK)

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE: Gowanda Peter Cooper
CLIENT: Village of Gowanda
Weather Conditions: Sunny

SAMPLE LOCATION: SW-1
JOB #: 2310.001.001
Temperature: 75°F

SAMPLE TYPE: Groundwater ☐ Surface Water ☒ Other (specify): ____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	-
Measured Well Depth (feet)*:	-
Well Casing Diameter (inches):	-
Calculated Volume in Well Casing (gallons):	-

*depth from measuring point

Measuring Point: -
Measured by: BJM
Date: ____
Time: ____

PURGING METHOD

Equipment:

Bailer	☐	Submersible Pump	☐	Air Lift System	☐
Non-dedicated	☐	Foot Valve	☐	Peristaltic Pump	☐
Dedicated	☐	Bladder Pump	☐	Grab	☐

Calculated Volume Of Water To Be Purged (gallons): ____
Actual Volume of Water Purged (gallons): ____

Did well purge dry?	No ☐	Yes ☐		
Did well recover?	No ☐	Yes ☐	Recovery Time:	____

SAMPLING METHOD

Equipment:

Bailer	☐	Submersible Pump	☐	Air Lift System	☐
Non-dedicated	☐	Sample Bottle	☒	Peristaltic Pump	☐
Dedicated	☐	Bladder Pump	☐	Waterra	☐

Sampled by: BJM Time: 10:33 Date: 6/23/21

SAMPLING DATA

Sample Appearance
Color: Slight Brown Haze Sediment: Fines Present
Odor: None

Field Measured Parameters

pH (Standard Units)	~~6~~ 7.33	Sp. Conductivity (umhos/cm)	382.3
Temperature (C)	61.8	Eh-Redox Potential (mV)	141.0
Turbidity (NTU)	20.5	Dissolved Oxygen (mg/L)	10.14

Samples Collected (Number/Type):
9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Delivered to: Eurofins Test America Time: ____ Date: ____

COMMENTS:

Rev 3/14 (MPS)

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE:	Gowanda Peter Cooper	**SAMPLE LOCATION:**	SW-2
CLIENT:	Village of Gowanda	**JOB #:**	2310.001.001
Weather Conditions:	Sunny	Temperature:	75°F

SAMPLE TYPE: Groundwater ☐ Surface Water ☒ Other (specify): ____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	-
Measured Well Depth (feet)*:	-
Well Casing Diameter (inches):	-
Calculated Volume in Well Casing (gallons):	-

*depth from measuring point

Measuring Point: -
Measured by: BJM
Date: ____
Time: ____

PURGING METHOD

Equipment:

Bailer	☐	Submersible Pump	☐	Air Lift System	☐
Non-dedicated	☐	Foot Valve	☐	Peristaltic Pump	☐
Dedicated	☐	Bladder Pump	☐	Grab	☐

Calculated Volume Of Water To Be Purged (gallons): ____
Actual Volume of Water Purged (gallons): ____

Did well purge dry? No ☐ Yes ☐
Did well recover? No ☐ Yes ☐ Recovery Time: ____

SAMPLING METHOD

Equipment:

Bailer	☐	Submersible Pump	☐	Air Lift System	☐
Non-dedicated	☐	Sample Bottle	☒	Peristaltic Pump	☐
Dedicated	☐	Bladder Pump	☐	Waterra	☐

Sampled by: BJM Time: 11:07 Date: 6/23/21

SAMPLING DATA

Sample Appearance
Color: Slight Brown Haze Sediment: Fine Fraction
Odor: None

Field Measured Parameters

pH (Standard Units)	8.24	Sp. Conductivity (umhos/cm)	372.1
Temperature (Ø) C	63.3	Eh-Redox Potential (mV)	200.0
Turbidity (NTU)	19.1	Dissolved Oxygen (mg/L)	10.04

Samples Collected (Number/Type):
9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Delivered to: Eurofins Test America Time: ____ Date: ____

COMMENTS:

Rev. 3/14 (MPS)

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE:	Gowanda Peter Cooper	**SAMPLE LOCATION:**	SW-3
CLIENT:	Village of Gowanda	**JOB #:**	2310.001.001
Weather Conditions:	Sunny	Temperature:	73°F

SAMPLE TYPE: Groundwater ☐ Surface Water ☒ Other (specify): ____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	-
Measured Well Depth (feet)*:	-
Well Casing Diameter (inches):	-
Calculated Volume in Well Casing (gallons):	-

*depth from measuring point

Measuring Point: -
Measured by: BJM
Date: ____
Time: ____

PURGING METHOD

Equipment:					
	Bailer	☐	Submersible Pump	☐	Air Lift System ☐
	Non-dedicated	☐	Foot Valve	☐	Peristaltic Pump ☐
	Dedicated	☐	Bladder Pump	☐	Grab ☐

Calculated Volume Of Water To Be Purged (gallons): ____
Actual Volume of Water Purged (gallons): ____

Did well purge dry? No ☐ Yes ☐
Did well recover? No ☐ Yes ☐ Recovery Time: ____

SAMPLING METHOD

Equipment:					
	Bailer	☐	Submersible Pump	☐	Air Lift System ☐
	Non-dedicated	☐	Sample Bottle	☒	Peristaltic Pump ☐
	Dedicated	☐	Bladder Pump	☐	Waterra ☐

Sampled by: BJM Time: 12:32 Date: 6/23/21

SAMPLING DATA

Sample Appearance
Color: Slight Brown Haze Sediment: Fines Present
Odor: None

Field Measured Parameters

pH (Standard Units)	8.45	Sp. Conductivity (umhos/cm)	372.6
Temperature (°C) F	65.8	Eh-Redox Potential (mV)	175.0
Turbidity (NTU)	16.0	Dissolved Oxygen (mg/L)	9.88

Samples Collected (Number/Type):
9 Bottles- Sampled for TCL VOCs, Total Metals, Water Quality Parameters

Samples Delivered to: Eurofins Test America Time: ____ Date: ____

COMMENTS:

Rev. 3/14 (MPS)

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Phone (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: TJB/BJM	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-158327-31975.1
Client Contact: Tim Bly	Phone: 716-473-8185	E-Mail: Ryan.VanDette@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: Barton & Loguidice, D.P.C.	PWSID:			Job #:
Address: 600 Riverwalk Pky. Suite 400	Due Date Requested: STD			
City: Tonawanda	TAT Requested (days): STD			
State, Zip: NY, 14150	Compliance Project: Δ Yes Δ No			
Phone: 716-436-7857(Tel)	PO #: Purchase Order Requested			
Email: tbly@bartonandloguidice.com	WO #: 2310.001.001			
Project Name: Village of Gowanda, NY Landfill	Project #: 48021815			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_28D - Chloride	350.1 - Ammonia	6010C - T. As,Cr,Mn	2340C - Hardness	8260C - Select Volatiles	SM4500_S2_F - Sulfide	7196A - Hexavalent Chromium	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	A	CB	N		
MW-1SR	6-23-21	1313	G	Water		Y	X	X	X	X	X	X	X	3	MS/MSD
MW-7S		DRY		Water										0	DRY
MW-2SR		DRY		Water										0	DRY
MW-5		1228		Water			X	X	X	X	X	X	X	3	
MWFP-2S		1040		Water			X	X	X	X	X	X	X	3	
MWFP-3S		1145		Water			X	X	X	X	X	X	X	3	
SW-1		1033		Water			X	X	X	X	X	X	X	3	
SW-2		1107		Water			X	X	X	X	X	X	X	3	
SW-3		1232		Water			X	X	X	X	X	X	X	3	
DUPLICATE		—		Water			X	X	X	X	X	X	X	3	
MS	6-23-21	1313	G	Water			X	X	X	X	X	X	X	3	MW-1SR

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6-23-21/1520	B+L			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 6/24/21 1520	Company TOA

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

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Phone (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: TJB/BJM	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-158327-31975.2
Client Contact: Tim Bly	Phone: 716-473-8185	E-Mail: Ryan.VanDette@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: Barton & Loguidice, D.P.C.	PWSID:	Analysis Requested		Job #:
Address: 600 Riverwalk Pky. Suite 400	Due Date Requested: STD			
City: Tonawanda	TAT Requested (days): STD			
State, Zip: NY, 14150	Compliance Project: Δ Yes Δ No			
Phone: 716-436-7857(Tel)	PO #: Purchase Order Requested			
Email: tbly@bartonandloguidice.com	WO #: 2310.001.001			
Project Name: Village of Gowanda, NY Landfill	Project #: 48021815			
Site:	SSOW#:			

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil, Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_28D - Chloride	350.1 - Ammonia	6010C - T. As,Cr,Mn	2340C - Hardness	8260C - Select Volatiles	SM4500_S2_F - Sulfide	7196A - Hexavalent Chromium							Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	A	CB	N								
MSD	6-23-21	1313	G	Water			X	X	X	X	X	X	X							9	MW-15R
				Water																	
																					MW-C = 16.36 FT

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6-23-21 / 1520	BTL			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/23/21 1520	Company

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

Calibration Record

Project No: Columbia Date: 6-23-21

Calibrated By: TSD Time: 0920

pH Instrument Model:

Standard Solution	Calibration Reading	Acceptable Range
pH 4:	3.99	(+/- 1.0 pH, pH 3.0 - 5.0)
pH 7:	7.00	(+/- 1.5 pH, pH 5.5 - 8.5)
pH 10:	10.01	(+/- 1.0 pH, ph 9.0 - 11.0)

Sp.Conductivity Instrument Model:

Standard Solution	Calibration Reading	Acceptable Range
7000 uS	6998	(+/- 1.0 % Error)

ORP Instrument Model:

Standard Solution	Calibration Reading	Acceptable Range
		Myron 6p ORP calibration is calculated by pH and SPC values

Turbidimeter Model: LaMotte 2020we

Standard Solution	Calibration Reading	Acceptable Range
0.0	Blank	Blank 0.0 NTU
1.0	0.98	(0.5-1.5 NTU)
10.0	9.91	(8-12 NTU)

Dissolved Oxygen Meter Model: YSI EcoSense

Saturated Air	Air Pressure (MB)	Calibration Reading	Acceptable Range
100%			(+/- 5.0% Error, 95-105%)

Comments ORP cal'd w/ pH

Eco-Rental Solutions

Calibration Certificate

rev 8/9/11

Work Order No.: SE-091402
Date of Service: 06/22/21
Order Time: 11:08:46 AM

Unit Under Test: Myron 6P Ultrameter

Asset No.: FA00596 Technician: Luke Spencer

Initials: LS

Serial No: 6218870

TEST	Specification	Result
Standard Calibration	Pass/Fail	PASS

TEST STANDARDS USED:

DESCRIPTION	LOT NO./EXPIRATION DATE	QUANTITY
ORP Standard Solution	Lot No.19G100228 exp. 07/09/24	1
7.00 mS Conductivity Standard Solution	Lot No. 0GH506 Exp. 08/21	1
pH 4.00 Standard Solution	Lot No. 0GH202 Exp. 08/2022	1
pH 7.00 Standard Solution	Lot No. 0GH349 Exp. 11/22	1
pH 10.00 Standard Solution	Lot No. 0GH940 Exp. 08/2022	1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.

Eco-Rental Solutions

Calibration Certificate

rev 8/9/11

Work Order No.: SE-091399
Date of Service: 06/22/21
Order Time: 10:59:26 AM

Unit Under Test: YSI ProODO, 20m

Asset No.: FA02214 Technician: Luke Spencer

Initials: LS

Serial No: 15F103871

TEST	Specification	Result
Standard Calibration	Pass/Fail	PASS

TEST STANDARDS USED:

DESCRIPTION	LOT NO./EXPIRATION DATE	QUANTITY
Air Saturated Water		1
Sodium Sulfite/ Zero DO Standard	Lot No. C473638, No exp date	1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.

Attachment B
Analytical Data

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-186430-1
Client Project/Site: Village of Gowanda, NY Landfill

For:
Barton & Loguidice, D.P.C.
600 Riverwalk Pky.
Suite 400
Tonawanda, New York 14150

Attn: Mr. Jon Sundquist

Joseph V. Giacomazza

Authorized for release by:
7/2/2021 9:04:38 AM
Joe Giacomazza, Project Manager I
joe.giacomazza@testamericainc.com

Designee for

Ryan VanDette, Project Manager II
(716)504-9830
Ryan.VanDette@Eurofinset.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Job ID: 480-186430-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-186430-1

Comments
No additional comments.

Receipt
The samples were received on 6/23/2021 3:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.4º C, 4.2º C and 4.4º C.

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

HPLC/IC
Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-1SR (480-186430-1), MW-5 (480-186430-2), MWFP-2S (480-186430-3) and DUP (480-186430-8). Elevated reporting limits (RLs) are provided.

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

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

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

Detection Summary

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: MW-1SR — Lab Sample ID: 480-186430-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	3.7	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Ammonia	0.99		0.20	0.10	mg/L	1		350.1	Total/NA
Chloride	4.3		1.0	0.56	mg/L	2		9056A	Total/NA
Hardness as calcium carbonate	420		10.0	2.6	mg/L	1		SM 2340C	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 480-186430-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0031	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Manganese	1.2	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Ammonia	6.2		1.0	0.50	mg/L	5		350.1	Total/NA
Chloride	3.0		2.5	1.4	mg/L	5		9056A	Total/NA
Hardness as calcium carbonate	1450		10.0	2.6	mg/L	1		SM 2340C	Total/NA

Client Sample ID: MWFP-2S — Lab Sample ID: 480-186430-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.010		0.0040	0.0010	mg/L	1		6010C	Total/NA
Manganese	0.40	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Ammonia	6.6		1.0	0.50	mg/L	5		350.1	Total/NA
Chloride	8.6		1.0	0.56	mg/L	2		9056A	Total/NA
Hardness as calcium carbonate	570		10.0	2.6	mg/L	1		SM 2340C	Total/NA

Client Sample ID: MWFP-3S — Lab Sample ID: 480-186430-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.67	J	1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	4.6		1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.9		1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	1.0		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	0.0015	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Manganese	2.2	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Ammonia	17.0		2.0	1.0	mg/L	10		350.1	Total/NA
Chloride	18.4		0.50	0.28	mg/L	1		9056A	Total/NA
Hardness as calcium carbonate	420		10.0	2.6	mg/L	1		SM 2340C	Total/NA

Client Sample ID: SW-1 — Lab Sample ID: 480-186430-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.042	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Chloride	26.7		0.50	0.28	mg/L	1		9056A	Total/NA
Hardness as calcium carbonate	164		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: SW-2 — Lab Sample ID: 480-186430-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0018	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Manganese	0.044	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Chloride	26.9		0.50	0.28	mg/L	1		9056A	Total/NA
Hardness as calcium carbonate	172		4.0	1.1	mg/L	1		SM 2340C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: SW-3 — Lab Sample ID: 480-186430-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0012	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Manganese	0.040	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Chloride	27.2		0.50	0.28	mg/L	1		9056A	Total/NA
Hardness as calcium carbonate	152		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: DUP — Lab Sample ID: 480-186430-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0029	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Manganese	1.2	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Ammonia	6.2		1.0	0.50	mg/L	5		350.1	Total/NA
Chloride	3.1		1.0	0.56	mg/L	2		9056A	Total/NA
Hardness as calcium carbonate	1500		20.0	5.3	mg/L	1		SM 2340C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1SR
Lab Sample ID: 480-186430-1

Date Collected: 06/23/21 13:13
Matrix: Water
Date Received: 06/23/21 15:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND	F1	1.0	0.82	ug/L			06/25/21 15:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 15:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 15:07	1
Acetone	ND		10	3.0	ug/L			06/25/21 15:07	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 15:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 15:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 15:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 15:07	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*06/25/21 15:07*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*06/25/21 15:07*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/25/21 15:07*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*06/25/21 15:07*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:07	1
Chromium	ND		0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:07	1
Manganese	**3.7**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.99**		0.20	0.10	mg/L		06/25/21 06:30	06/25/21 09:02	1
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**4.3**		1.0	0.56	mg/L			07/01/21 01:54	2
Hardness as calcium carbonate	**420**		10.0	2.6	mg/L			06/28/21 12:20	1
Sulfide	ND	F1	1.0	0.67	mg/L			06/29/21 16:45	1

Client Sample ID: MW-5
Lab Sample ID: 480-186430-2

Date Collected: 06/23/21 12:28
Matrix: Water
Date Received: 06/23/21 15:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 15:30	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 15:30	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 15:30	1
Acetone	ND		10	3.0	ug/L			06/25/21 15:30	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 15:30	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 15:30	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 15:30	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 15:30	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*06/25/21 15:30*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*06/25/21 15:30*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/25/21 15:30*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*06/25/21 15:30*	*1*

Client Sample ID: MW-5

Lab Sample ID: 480-186430-2

Date Collected: 06/23/21 12:28

Matrix: Water

Date Received: 06/23/21 15:20

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:36	1
Chromium	**0.0031**	**J**	0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:36	1
Manganese	**1.2**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**6.2**		1.0	0.50	mg/L		06/25/21 06:30	06/25/21 09:21	5
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**3.0**		2.5	1.4	mg/L			06/30/21 22:19	5
Hardness as calcium carbonate	**1450**		10.0	2.6	mg/L			06/28/21 12:20	1
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Client Sample ID: MWFP-2S

Lab Sample ID: 480-186430-3

Date Collected: 06/23/21 10:40

Matrix: Water

Date Received: 06/23/21 15:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 15:52	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 15:52	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 15:52	1
Acetone	ND		10	3.0	ug/L			06/25/21 15:52	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 15:52	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 15:52	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 15:52	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 15:52	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*06/25/21 15:52*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*06/25/21 15:52*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*06/25/21 15:52*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*06/25/21 15:52*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:40	1
Chromium	**0.010**		0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:40	1
Manganese	**0.40**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**6.6**		1.0	0.50	mg/L		06/28/21 07:00	06/28/21 08:51	5
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**8.6**		1.0	0.56	mg/L			06/30/21 22:37	2
Hardness as calcium carbonate	**570**		10.0	2.6	mg/L			06/28/21 12:20	1
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: MWFP-3S

Lab Sample ID: 480-186430-4

Date Collected: 06/23/21 11:45
Date Received: 06/23/21 15:20

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 16:15	1
1,1-Dichloroethane	**0.67**	**J**	1.0	0.38	ug/L			06/25/21 16:15	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 16:15	1
Acetone	ND		10	3.0	ug/L			06/25/21 16:15	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 16:15	1
cis-1,2-Dichloroethene	**4.6**		1.0	0.81	ug/L			06/25/21 16:15	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 16:15	1
Tetrachloroethene	**1.9**		1.0	0.36	ug/L			06/25/21 16:15	1
Trichloroethene	**1.0**		1.0	0.46	ug/L			06/25/21 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*06/25/21 16:15*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*06/25/21 16:15*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/25/21 16:15*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*06/25/21 16:15*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:44	1
Chromium	**0.0015**	**J**	0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:44	1
Manganese	**2.2**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**17.0**		2.0	1.0	mg/L		06/28/21 07:00	06/28/21 08:59	10
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**18.4**		0.50	0.28	mg/L			07/01/21 00:24	1
Hardness as calcium carbonate	**420**		10.0	2.6	mg/L			06/28/21 12:20	1
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Client Sample ID: SW-1

Lab Sample ID: 480-186430-5

Date Collected: 06/23/21 10:33
Date Received: 06/23/21 15:20

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 16:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 16:37	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 16:37	1
Acetone	ND		10	3.0	ug/L			06/25/21 16:37	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 16:37	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 16:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 16:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 16:37	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*06/25/21 16:37*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*06/25/21 16:37*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/25/21 16:37*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*06/25/21 16:37*	*1*

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: SW-1

Lab Sample ID: 480-186430-5

Date Collected: 06/23/21 10:33
Matrix: Water
Date Received: 06/23/21 15:20

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:47	1
Chromium	ND		0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:47	1
Manganese	**0.042**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20	0.10	mg/L		06/25/21 06:30	06/25/21 09:42	1
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**26.7**		0.50	0.28	mg/L			07/01/21 00:42	1
Hardness as calcium carbonate	**164**		4.0	1.1	mg/L			06/28/21 12:20	1
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Client Sample ID: SW-2

Lab Sample ID: 480-186430-6

Date Collected: 06/23/21 11:07
Matrix: Water
Date Received: 06/23/21 15:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 17:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 17:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 17:00	1
Acetone	ND		10	3.0	ug/L			06/25/21 17:00	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 17:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 17:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 17:00	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 17:00	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*06/25/21 17:00*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*06/25/21 17:00*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*06/25/21 17:00*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*06/25/21 17:00*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:51	1
Chromium	**0.0018**	**J**	0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:51	1
Manganese	**0.044**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20	0.10	mg/L		06/25/21 06:30	06/25/21 09:45	1
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**26.9**		0.50	0.28	mg/L			07/01/21 01:00	1
Hardness as calcium carbonate	**172**		4.0	1.1	mg/L			06/28/21 12:20	1
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: SW-3

Lab Sample ID: 480-186430-7

Date Collected: 06/23/21 12:32
Date Received: 06/23/21 15:20

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 17:22	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 17:22	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 17:22	1
Acetone	ND		10	3.0	ug/L			06/25/21 17:22	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 17:22	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 17:22	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 17:22	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 17:22	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*06/25/21 17:22*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*06/25/21 17:22*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/25/21 17:22*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*06/25/21 17:22*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:55	1
Chromium	**0.0012**	**J**	0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:55	1
Manganese	**0.040**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20	0.10	mg/L		06/25/21 06:30	06/25/21 09:55	1
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**27.2**		0.50	0.28	mg/L			07/01/21 01:18	1
Hardness as calcium carbonate	**152**		4.0	1.1	mg/L			06/28/21 12:20	1
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Client Sample ID: DUP

Lab Sample ID: 480-186430-8

Date Collected: 06/23/21 13:13
Date Received: 06/23/21 15:20

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 17:45	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 17:45	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 17:45	1
Acetone	ND		10	3.0	ug/L			06/25/21 17:45	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 17:45	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 17:45	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 17:45	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 17:45	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*06/25/21 17:45*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*06/25/21 17:45*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*06/25/21 17:45*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*06/25/21 17:45*	*1*

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: DUP
Date Collected: 06/23/21 13:13
Date Received: 06/23/21 15:20

Lab Sample ID: 480-186430-8
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 21:59	1
Chromium	**0.0029**	**J**	0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 21:59	1
Manganese	**1.2**	**B**	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 21:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**6.2**		1.0	0.50	mg/L		06/28/21 07:00	06/28/21 09:01	5
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1
Chloride	**3.1**		1.0	0.56	mg/L			07/01/21 01:36	2
Hardness as calcium carbonate	**1500**		20.0	5.3	mg/L			06/28/21 12:20	1
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Surrogate Summary

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-186430-1	MW-1SR	97	97	99	99
480-186430-1 MS	MW-1SR	96	97	100	98
480-186430-1 MSD	MW-1SR	95	98	100	99
480-186430-2	MW-5	97	96	99	100
480-186430-3	MWFP-2S	98	96	100	100
480-186430-4	MWFP-3S	99	95	99	101
480-186430-5	SW-1	99	95	99	101
480-186430-6	SW-2	99	96	100	102
480-186430-7	SW-3	100	95	99	101
480-186430-8	DUP	102	94	98	103
LCS 480-586959/5	Lab Control Sample	98	96	101	100
MB 480-586959/7	Method Blank	99	93	99	100

Surrogate Legend

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

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

Lab Sample ID: MB 480-586959/7
Matrix: Water
Analysis Batch: 586959

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethane	ND		1.0	0.82	ug/L			06/25/21 11:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/21 11:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/21 11:07	1
Acetone	ND		10	3.0	ug/L			06/25/21 11:07	1
Chloroform	ND		1.0	0.34	ug/L			06/25/21 11:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/21 11:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/21 11:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/21 11:07	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/21 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*06/25/21 11:07*	*1*
4-mrof obuorozen3ene (Surr)	*9B*		*7B - 120*		*06/25/21 11:07*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/25/21 11:07*	*1*
Dizrof obuorof ethane (Surr)	*100*		*75 - 12B*		*06/25/21 11:07*	*1*

Lab Sample ID: LCS 480-586959/5
Matrix: Water
Analysis Batch: 586959

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethane	25.0	28.1		ug/L		112	73 - 126
1,1-Dichloroethane	25.0	26.0		ug/L		104	77 - 120
2-Butanone (MEK)	125	118		ug/L		94	57 - 140
Acetone	125	127		ug/L		102	56 - 142
Chloroform	25.0	24.7		ug/L		99	73 - 127
cis-1,2-Dichloroethene	25.0	24.9		ug/L		100	74 - 124
Methylene Chloride	25.0	25.2		ug/L		101	75 - 124
Tetrachloroethene	25.0	24.6		ug/L		99	74 - 122
Trichloroethene	25.0	24.8		ug/L		99	74 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-mrof obuorozen3ene (Surr)	*96*		*7B - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
Dizrof obuorof ethane (Surr)	*100*		*75 - 12B*

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 586959

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethane	ND	F1	25.0	33.8	F1	ug/L		135	73 - 126
1,1-Dichloroethane	ND		25.0	29.5		ug/L		118	77 - 120
2-Butanone (MEK)	ND		125	119		ug/L		95	57 - 140
Acetone	ND		125	119		ug/L		95	56 - 142
Chloroform	ND		25.0	27.8		ug/L		111	73 - 127
cis-1,2-Dichloroethene	ND		25.0	28.5		ug/L		114	74 - 124

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

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 586959

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	ND		25.0	29.4		ug/L		118	75 - 124
Tetrachloroethene	ND		25.0	29.1		ug/L		116	74 - 122
Trichloroethene	ND		25.0	28.7		ug/L		115	74 - 123

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
4-mrof obuorozen3ene (Surr)	*97*		*7B - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dizrof obuorof ethane (Surr)	*98*		*75 - 12B*

Lab Sample ID: 480-186430-1 MSD
Matrix: Water
Analysis Batch: 586959

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethane	ND	F1	25.0	33.9	F1	ug/L		136	73 - 126	0	15
1,1-Dichloroethane	ND		25.0	29.5		ug/L		118	77 - 120	0	20
2-Butanone (MEK)	ND		125	120		ug/L		96	57 - 140	1	20
Acetone	ND		125	118		ug/L		94	56 - 142	1	15
Chloroform	ND		25.0	27.7		ug/L		111	73 - 127	0	20
cis-1,2-Dichloroethene	ND		25.0	28.4		ug/L		114	74 - 124	0	15
Methylene Chloride	ND		25.0	28.9		ug/L		116	75 - 124	2	15
Tetrachloroethene	ND		25.0	29.5		ug/L		118	74 - 122	1	20
Trichloroethene	ND		25.0	28.6		ug/L		114	74 - 123	0	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-mrof obuorozen3ene (Surr)	*98*		*7B - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dizrof obuorof ethane (Surr)	*99*		*75 - 12B*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-586949/1-A
Matrix: Water
Analysis Batch: 587407

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 586949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/28/21 10:57	06/28/21 20:59	1
Chromium	ND		0.0040	0.0010	mg/L		06/28/21 10:57	06/28/21 20:59	1
Manganese	0.000750	J	0.0030	0.00040	mg/L		06/28/21 10:57	06/28/21 20:59	1

Lab Sample ID: LCS 480-586949/2-A
Matrix: Water
Analysis Batch: 587407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.206		mg/L		103	80 - 120
Chromium	0.200	0.209		mg/L		105	80 - 120

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

Lab Sample ID: LCS 480-586949/2-A
Matrix: Water
Analysis Batch: 587407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586949

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Manganese			0.200	0.214		mg/L		107	80 - 120		

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 587407

Client Sample ID: MW-1SR
Prep Type: Total/NA
Prep Batch: 586949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	ND		0.200	0.217		mg/L		109	75 - 125		
Chromium	ND		0.200	0.211		mg/L		106	75 - 125		
Manganese	3.7	B	0.200	3.87	4	mg/L		92	75 - 125		

Lab Sample ID: 480-186430-1 MSD
Matrix: Water
Analysis Batch: 587407

Client Sample ID: MW-1SR
Prep Type: Total/NA
Prep Batch: 586949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.200	0.214		mg/L		107	75 - 125	1	20
Chromium	ND		0.200	0.213		mg/L		106	75 - 125	1	20
Manganese	3.7	B	0.200	3.93	4	mg/L		124	75 - 125	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 587008

Client Sample ID: MW-1SR
Prep Type: Total/NA
Prep Batch: 586969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	0.99		0.200	1.22	4	mg/L		113	90 - 110		

Lab Sample ID: 480-186430-1 MSD
Matrix: Water
Analysis Batch: 587008

Client Sample ID: MW-1SR
Prep Type: Total/NA
Prep Batch: 586969

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.99		0.200	1.21	4	mg/L		109	90 - 110	1	20

Lab Sample ID: MB 480-587008/16
Matrix: Water
Analysis Batch: 587008

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20	0.10	mg/L			06/25/21 08:57	1

Lab Sample ID: LCS 480-587008/17
Matrix: Water
Analysis Batch: 587008

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			1.00	0.900		mg/L		90	90 - 110		

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 480-587238/17
Matrix: Water
Analysis Batch: 587238

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20	0.10	mg/L			06/28/21 08:40	1

Lab Sample ID: LCS 480-587238/18
Matrix: Water
Analysis Batch: 587238

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			1.00	0.994		mg/L		99	90 - 110		

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-586772/3
Matrix: Water
Analysis Batch: 586772

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			06/24/21 08:55	1

Lab Sample ID: LCS 480-586772/4
Matrix: Water
Analysis Batch: 586772

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent			0.0500	0.0536		mg/L		107	85 - 115		

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 586772

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	ND		0.0500	0.0426		mg/L		85	85 - 115		

Lab Sample ID: 480-186430-1 MSD
Matrix: Water
Analysis Batch: 586772

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.0500	0.0487		mg/L		97	85 - 115	13	20

Lab Sample ID: 480-186430-5 MS
Matrix: Water
Analysis Batch: 586772

Client Sample ID: SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	ND		0.0500	0.0438		mg/L		88	85 - 115		

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-186430-4 DU
Matrix: Water
Analysis Batch: 586772

Client Sample ID: MWFP-3S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chromium, hexavalent	ND			ND		mg/L				NC	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 480-587618/28
Matrix: Water
Analysis Batch: 587618

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			07/01/21 00:07	1

Lab Sample ID: MB 480-587618/4
Matrix: Water
Analysis Batch: 587618

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			06/30/21 16:56	1

Lab Sample ID: LCS 480-587618/27
Matrix: Water
Analysis Batch: 587618

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	49.32		mg/L		99	90 - 110		

Lab Sample ID: LCS 480-587618/3
Matrix: Water
Analysis Batch: 587618

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	49.37		mg/L		99	90 - 110		

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 587618

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	4.3		100	101.6		mg/L		97	81 - 120		

Lab Sample ID: 480-186430-1 MSD
Matrix: Water
Analysis Batch: 587618

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.3		100	101.0		mg/L		97	81 - 120	1	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 480-186430-3 MS
Matrix: Water
Analysis Batch: 587618

Client Sample ID: MWFP-2S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	8.6		100	106.3		mg/L		98	81 - 120		

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 480-587287/3
Matrix: Water
Analysis Batch: 587287

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.0	0.53	mg/L			06/28/21 12:20	1

Lab Sample ID: LCS 480-587287/4
Matrix: Water
Analysis Batch: 587287

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			183	184.0		mg/L		101	90 - 110		

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 587287

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate	420		500	1010		mg/L		118	74 - 130		

Lab Sample ID: 480-186430-1 MSD
Matrix: Water
Analysis Batch: 587287

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness as calcium carbonate	420		500	1000		mg/L		116	74 - 130	1	15

Lab Sample ID: 480-186430-4 DU
Matrix: Water
Analysis Batch: 587287

Client Sample ID: MWFP-3S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Hardness as calcium carbonate	420			440.0		mg/L				5	15

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-587623/27
Matrix: Water
Analysis Batch: 587623

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Method: SM 4500 S2 F - Sulfide, Total (Continued)

Lab Sample ID: MB 480-587623/3
Matrix: Water
Analysis Batch: 587623

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			06/29/21 16:45	1

Lab Sample ID: LCS 480-587623/28
Matrix: Water
Analysis Batch: 587623

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			7.80	8.40		mg/L		108	90 - 110		

Lab Sample ID: LCS 480-587623/4
Matrix: Water
Analysis Batch: 587623

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			7.80	8.00		mg/L		103	90 - 110		

Lab Sample ID: 480-186430-1 MS
Matrix: Water
Analysis Batch: 587623

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	ND	F1	2.00	2.00		mg/L		100	40 - 150		

Lab Sample ID: 480-186430-1 MSD
Matrix: Water
Analysis Batch: 587623

Client Sample ID: MW-1SR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND	F1	2.00	2.00		mg/L		100	40 - 150	0	20

GC/MS VOA

Analysis Batch: 586959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	8260C	
480-186430-2	MW-5	Total/NA	Water	8260C	
480-186430-3	MWFP-2S	Total/NA	Water	8260C	
480-186430-4	MWFP-3S	Total/NA	Water	8260C	
480-186430-5	SW-1	Total/NA	Water	8260C	
480-186430-6	SW-2	Total/NA	Water	8260C	
480-186430-7	SW-3	Total/NA	Water	8260C	
480-186430-8	DUP	Total/NA	Water	8260C	
MB 480-586959/7	Method Blank	Total/NA	Water	8260C	
LCS 480-586959/5	Lab Control Sample	Total/NA	Water	8260C	
480-186430-1 MS	MW-1SR	Total/NA	Water	8260C	
480-186430-1 MSD	MW-1SR	Total/NA	Water	8260C	

Metals

Prep Batch: 586949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	3005A	
480-186430-2	MW-5	Total/NA	Water	3005A	
480-186430-3	MWFP-2S	Total/NA	Water	3005A	
480-186430-4	MWFP-3S	Total/NA	Water	3005A	
480-186430-5	SW-1	Total/NA	Water	3005A	
480-186430-6	SW-2	Total/NA	Water	3005A	
480-186430-7	SW-3	Total/NA	Water	3005A	
480-186430-8	DUP	Total/NA	Water	3005A	
MB 480-586949/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-586949/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-186430-1 MS	MW-1SR	Total/NA	Water	3005A	
480-186430-1 MSD	MW-1SR	Total/NA	Water	3005A	

Analysis Batch: 587407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	6010C	586949
480-186430-2	MW-5	Total/NA	Water	6010C	586949
480-186430-3	MWFP-2S	Total/NA	Water	6010C	586949
480-186430-4	MWFP-3S	Total/NA	Water	6010C	586949
480-186430-5	SW-1	Total/NA	Water	6010C	586949
480-186430-6	SW-2	Total/NA	Water	6010C	586949
480-186430-7	SW-3	Total/NA	Water	6010C	586949
480-186430-8	DUP	Total/NA	Water	6010C	586949
MB 480-586949/1-A	Method Blank	Total/NA	Water	6010C	586949
LCS 480-586949/2-A	Lab Control Sample	Total/NA	Water	6010C	586949
480-186430-1 MS	MW-1SR	Total/NA	Water	6010C	586949
480-186430-1 MSD	MW-1SR	Total/NA	Water	6010C	586949

General Chemistry

Analysis Batch: 586772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	7196A	
480-186430-2	MW-5	Total/NA	Water	7196A	
480-186430-3	MWFP-2S	Total/NA	Water	7196A	

General Chemistry (Continued)

Analysis Batch: 586772 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-4	MWFP-3S	Total/NA	Water	7196A	
480-186430-5	SW-1	Total/NA	Water	7196A	
480-186430-6	SW-2	Total/NA	Water	7196A	
480-186430-7	SW-3	Total/NA	Water	7196A	
480-186430-8	DUP	Total/NA	Water	7196A	
MB 480-586772/3	Method Blank	Total/NA	Water	7196A	
LCS 480-586772/4	Lab Control Sample	Total/NA	Water	7196A	
480-186430-1 MS	MW-1SR	Total/NA	Water	7196A	
480-186430-1 MSD	MW-1SR	Total/NA	Water	7196A	
480-186430-5 MS	SW-1	Total/NA	Water	7196A	
480-186430-4 DU	MWFP-3S	Total/NA	Water	7196A	

Prep Batch: 586969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	Distill/Ammonia	
480-186430-2	MW-5	Total/NA	Water	Distill/Ammonia	
480-186430-5	SW-1	Total/NA	Water	Distill/Ammonia	
480-186430-6	SW-2	Total/NA	Water	Distill/Ammonia	
480-186430-7	SW-3	Total/NA	Water	Distill/Ammonia	
480-186430-1 MS	MW-1SR	Total/NA	Water	Distill/Ammonia	
480-186430-1 MSD	MW-1SR	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 587008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	350.1	586969
480-186430-2	MW-5	Total/NA	Water	350.1	586969
480-186430-5	SW-1	Total/NA	Water	350.1	586969
480-186430-6	SW-2	Total/NA	Water	350.1	586969
480-186430-7	SW-3	Total/NA	Water	350.1	586969
MB 480-587008/16	Method Blank	Total/NA	Water	350.1	
LCS 480-587008/17	Lab Control Sample	Total/NA	Water	350.1	
480-186430-1 MS	MW-1SR	Total/NA	Water	350.1	586969
480-186430-1 MSD	MW-1SR	Total/NA	Water	350.1	586969

Prep Batch: 587166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-3	MWFP-2S	Total/NA	Water	Distill/Ammonia	
480-186430-4	MWFP-3S	Total/NA	Water	Distill/Ammonia	
480-186430-8	DUP	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 587238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-3	MWFP-2S	Total/NA	Water	350.1	587166
480-186430-4	MWFP-3S	Total/NA	Water	350.1	587166
480-186430-8	DUP	Total/NA	Water	350.1	587166
MB 480-587238/17	Method Blank	Total/NA	Water	350.1	
LCS 480-587238/18	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 587287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	SM 2340C	

General Chemistry (Continued)

Analysis Batch: 587287 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-2	MW-5	Total/NA	Water	SM 2340C	
480-186430-3	MWFP-2S	Total/NA	Water	SM 2340C	
480-186430-4	MWFP-3S	Total/NA	Water	SM 2340C	
480-186430-5	SW-1	Total/NA	Water	SM 2340C	
480-186430-6	SW-2	Total/NA	Water	SM 2340C	
480-186430-7	SW-3	Total/NA	Water	SM 2340C	
480-186430-8	DUP	Total/NA	Water	SM 2340C	
MB 480-587287/3	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-587287/4	Lab Control Sample	Total/NA	Water	SM 2340C	
480-186430-1 MS	MW-1SR	Total/NA	Water	SM 2340C	
480-186430-1 MSD	MW-1SR	Total/NA	Water	SM 2340C	
480-186430-4 DU	MWFP-3S	Total/NA	Water	SM 2340C	

Analysis Batch: 587618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	9056A	
480-186430-2	MW-5	Total/NA	Water	9056A	
480-186430-3	MWFP-2S	Total/NA	Water	9056A	
480-186430-4	MWFP-3S	Total/NA	Water	9056A	
480-186430-5	SW-1	Total/NA	Water	9056A	
480-186430-6	SW-2	Total/NA	Water	9056A	
480-186430-7	SW-3	Total/NA	Water	9056A	
480-186430-8	DUP	Total/NA	Water	9056A	
MB 480-587618/28	Method Blank	Total/NA	Water	9056A	
MB 480-587618/4	Method Blank	Total/NA	Water	9056A	
LCS 480-587618/27	Lab Control Sample	Total/NA	Water	9056A	
LCS 480-587618/3	Lab Control Sample	Total/NA	Water	9056A	
480-186430-1 MS	MW-1SR	Total/NA	Water	9056A	
480-186430-1 MSD	MW-1SR	Total/NA	Water	9056A	
480-186430-3 MS	MWFP-2S	Total/NA	Water	9056A	

Analysis Batch: 587623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-186430-1	MW-1SR	Total/NA	Water	SM 4500 S2 F	
480-186430-2	MW-5	Total/NA	Water	SM 4500 S2 F	
480-186430-3	MWFP-2S	Total/NA	Water	SM 4500 S2 F	
480-186430-4	MWFP-3S	Total/NA	Water	SM 4500 S2 F	
480-186430-5	SW-1	Total/NA	Water	SM 4500 S2 F	
480-186430-6	SW-2	Total/NA	Water	SM 4500 S2 F	
480-186430-7	SW-3	Total/NA	Water	SM 4500 S2 F	
480-186430-8	DUP	Total/NA	Water	SM 4500 S2 F	
MB 480-587623/27	Method Blank	Total/NA	Water	SM 4500 S2 F	
MB 480-587623/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-587623/28	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
LCS 480-587623/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
480-186430-1 MS	MW-1SR	Total/NA	Water	SM 4500 S2 F	
480-186430-1 MSD	MW-1SR	Total/NA	Water	SM 4500 S2 F	

Lab Chronicle

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: MW-1SR

Lab Sample ID: 480-186430-1

Date Collected: 06/23/21 13:13

Matrix: Water

Date Received: 06/23/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 15:07	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:07	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			586969	06/25/21 06:30	CLT	TAL BUF
Total/NA	Analysis	350.1		1	587008	06/25/21 09:02	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		2	587618	07/01/21 01:54	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Client Sample ID: MW-5

Lab Sample ID: 480-186430-2

Date Collected: 06/23/21 12:28

Matrix: Water

Date Received: 06/23/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 15:30	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:36	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			586969	06/25/21 06:30	CLT	TAL BUF
Total/NA	Analysis	350.1		5	587008	06/25/21 09:21	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		5	587618	06/30/21 22:19	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Client Sample ID: MWFP-2S

Lab Sample ID: 480-186430-3

Date Collected: 06/23/21 10:40

Matrix: Water

Date Received: 06/23/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 15:52	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:40	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			587166	06/28/21 07:00	CLT	TAL BUF
Total/NA	Analysis	350.1		5	587238	06/28/21 08:51	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		2	587618	06/30/21 22:37	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Client Sample ID: MWFP-3S
Lab Sample ID: 480-186430-4

Date Collected: 06/23/21 11:45
Matrix: Water
Date Received: 06/23/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 16:15	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:44	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			587166	06/28/21 07:00	CLT	TAL BUF
Total/NA	Analysis	350.1		10	587238	06/28/21 08:59	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		1	587618	07/01/21 00:24	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Client Sample ID: SW-1
Lab Sample ID: 480-186430-5

Date Collected: 06/23/21 10:33
Matrix: Water
Date Received: 06/23/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 16:37	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:47	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			586969	06/25/21 06:30	CLT	TAL BUF
Total/NA	Analysis	350.1		1	587008	06/25/21 09:42	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		1	587618	07/01/21 00:42	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Client Sample ID: SW-2
Lab Sample ID: 480-186430-6

Date Collected: 06/23/21 11:07
Matrix: Water
Date Received: 06/23/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 17:00	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:51	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			586969	06/25/21 06:30	CLT	TAL BUF
Total/NA	Analysis	350.1		1	587008	06/25/21 09:45	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		1	587618	07/01/21 01:00	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Lab Chronicle

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Client Sample ID: SW-3

Lab Sample ID: 480-186430-7

Date Collected: 06/23/21 12:32
Date Received: 06/23/21 15:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 17:22	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:55	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			586969	06/25/21 06:30	CLT	TAL BUF
Total/NA	Analysis	350.1		1	587008	06/25/21 09:55	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		1	587618	07/01/21 01:18	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Client Sample ID: DUP

Lab Sample ID: 480-186430-8

Date Collected: 06/23/21 13:13
Date Received: 06/23/21 15:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	586959	06/25/21 17:45	OMI	TAL BUF
Total/NA	Prep	3005A			586949	06/28/21 10:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	587407	06/28/21 21:59	AMH	TAL BUF
Total/NA	Prep	Distill/Ammonia			587166	06/28/21 07:00	CLT	TAL BUF
Total/NA	Analysis	350.1		5	587238	06/28/21 09:01	CLT	TAL BUF
Total/NA	Analysis	7196A		1	586772	06/24/21 08:55	DLG	TAL BUF
Total/NA	Analysis	9056A		2	587618	07/01/21 01:36	IMZ	TAL BUF
Total/NA	Analysis	SM 2340C		1	587287	06/28/21 12:20	KEB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	587623	06/29/21 16:45	SRA	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Barton & Loguidice, D.P.C.
Job ID: 480-186430-1
Project/Site: Village of Gowanda, NY Landfill

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
SM 2340C		Water	Hardness as calcium carbonate

Method Summary

Client: Barton & Loguidice, D.P.C.
Job ID: 480-186430-1
Project/Site: Village of Gowanda, NY Landfill

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
9056A	Anions, Ion Chromatography	SW846	TAL BUF
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/Ammonia	Distillation, Ammonia	None	TAL BUF

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

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

Sample Summary

Client: Barton & Loguidice, D.P.C.
Project/Site: Village of Gowanda, NY Landfill

Job ID: 480-186430-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-186430-1	MW-1SR	Water	06/23/21 13:13	06/23/21 15:20	
480-186430-2	MW-5	Water	06/23/21 12:28	06/23/21 15:20	
480-186430-3	MWFP-2S	Water	06/23/21 10:40	06/23/21 15:20	
480-186430-4	MWFP-3S	Water	06/23/21 11:45	06/23/21 15:20	
480-186430-5	SW-1	Water	06/23/21 10:33	06/23/21 15:20	
480-186430-6	SW-2	Water	06/23/21 11:07	06/23/21 15:20	
480-186430-7	SW-3	Water	06/23/21 12:32	06/23/21 15:20	
480-186430-8	DUP	Water	06/23/21 13:13	06/23/21 15:20	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Phone (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: TJB/BJM	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-158327-31975.1
Client Contact: Tim Bly	Phone: 716-473-8185	E-Mail: Ryan.VanDette@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: Barton & Loguidice, D.P.C.	PWSID:			Job #:

Address: 600 Riverwalk Pky. Suite 400	Due Date Requested: STD	Analysis Requested
City: Tonawanda	TAT Requested (days): STD	
State, Zip: NY, 14150	Compliance Project: Δ Yes Δ No	
Phone: 716-436-7857(Tel)	PO #: Purchase Order Requested	
Email: tbly@bartonandloguidice.com	WO #: 2310.001.001	
Project Name: Village of Gowanda, NY Landfill	Project #: 48021815	
Site:	SSOW#:	

480-186430 Chain of Custody

J - DI Water
K - EDTA
L - EDA
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_28D - Chloride	350.1 - Ammonia	6010C - T. As,Cr,Mn	2340C - Hardness	8260C - Select Volatiles	SM4500_S2_F - Sulfide	7196A - Hexavalent Chromium	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	A	CB	N		
MW-1SR	6-23-21	1313	G	Water		Y	X	X	X	X	X	X	X	9	MS/MSD
MW-7S		DRY		Water										0	DRY
MW-2SR		DRY		Water										0	DRY
MW-5		1228		Water			X	X	X	X	X	X	X	9	
MWFP-2S		1040		Water			X	X	X	X	X	X	X	9	
MWFP-3S		1145		Water			X	X	X	X	X	X	X	9	
SW-1		1033		Water			X	X	X	X	X	X	X	9	
SW-2		1107		Water			X	X	X	X	X	X	X	9	
SW-3		1232		Water			X	X	X	X	X	X	X	9	
DUPLICATE		—		Water			X	X	X	X	X	X	X	9	
MS	6-23-21	1313	G	Water			X	X	X	X	X	X	X	9	MW-1SR

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 6-23-21/1520	Company B+L	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/24/21 1520	Company TOA

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

Cooler Temperature(s) °C and Other Remarks: 3.4 4.4 4.2 #1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Phone (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: TJB/BJM	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-158327-31975.2
Client Contact: Tim Bly	Phone: 716-473-8185	E-Mail: Ryan.VanDette@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: Barton & Loguidice, D.P.C.	PWSID:			Job #:
Address: 600 Riverwalk Pky. Suite 400	Due Date Requested: STD			
City: Tonawanda	TAT Requested (days): STD			
State, Zip: NY, 14150	Compliance Project: Δ Yes Δ No			
Phone: 716-436-7857(Tel)	PO #: Purchase Order Requested			
Email: tbly@bartonandloguidice.com	WO #: 2310.001.001			
Project Name: Village of Gowanda, NY Landfill	Project #: 48021815			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_28D - Chloride	350.1 - Ammoia	6010C - T. As,Cr,Mn	2340C - Hardness	8260C - Select Volatiles	SM4500_S2_F - Sulfide	7196A - Hexavalent Chromium	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	S	D	D	A	CB	N		
MSD	6-23-21	1313	G	Water			X	X	X	X	X	X	X	9	MW-1SR
				Water											
															MW-6 = 16.36 FT

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		6-23-21 / 1520	B+L			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/23/21 1520	Company

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Barton & Loguidice, D.P.C.

Job Number: 480-186430-1

Login Number: 186430

List Number: 1

Creator: Stopa, Erik S

List Source: Eurofins TestAmerica, Buffalo

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

Attachment C
Inspection Form

Field Inspection Report
Post-Remedial Operation, Maintenance & Monitoring Plan

Property Name: Peter Cooper Landfill Site Project No.:

Client: Gowanda Area Redevelopment Corporation

Property Address: 138 Palmer St City, State: Gowanda NY Zip Code: 14070

Property ID: (Tax Assessment Map) Section: 16.028 Block: 3 Lot(s): 10.4

Preparer's Name: Jon Sundquist Date/Time: December 22, 2020

CERTIFICATION

The results of this inspection were discussed with the Site Manager. Any corrective actions required have been identified and noted in this report, and a supplemental Corrective Action Form has been completed. Proper implementation of these corrective actions have been discussed with the Site Manager, agreed upon, and scheduled.

Preparer / Inspector: Jon Sundquist **Date:** 12/22/2021

Signature: Jon Sundquist

Next Scheduled Inspection Date: 2022

Property Access

1. Is the access road in need of repair?	☐ yes	☒ no	☐ N/A
2. Sufficient signage posted (No Trespassing)?	☐ yes	☐ no	☒ N/A
3. Has there been any noted or reported trespassing?	☐ yes	☐ no	☒ N/A

Please note any irregularities/ changes in site access and security: Site is a public park and thus no site access controls are present.

Final Surface Cover / Vegetation

The integrity of the vegetative soil cover or other surface coverage (e.g., asphalt, concrete) over the entire Site must be maintained. The following documents the condition of the above.

1. Final Cover is in Place and in good condition?	☒ yes	☐ no	☐ N/A
Cover consists of (mainly):			
2. Evidence of erosion?	☐ yes	☒ no	☐ N/A
3. Cracks visible in pavement?	☐ yes	☐ no	☒ N/A
4. Evidence of distressed vegetation/turf?	☐ yes	☒ no	☐ N/A
5. Evidence of unintended traffic and/or rutting?	☐ yes	☒ no	☐ N/A
6. Evidence of uneven settlement and/or ponding?	☐ yes	☒ no	☐ N/A

Field Inspection Report
Post-Remedial Operation, Maintenance & Monitoring Plan

Final Surface Cover / Vegetation

7. Damage to any surface coverage? ☐ yes ☒ no ☐ N/A

If yes to any question above, please provide more information below.

Gas Vent System Monitoring and Maintenance

Are there signs of stressed vegetation around gas vents? ☐ yes ☒ no ☐ N/A

Are the gas vents currently intact and operational? ☒ yes ☐ no ☐ N/A

Has regular maintenance and monitoring been documented and enclosed or referenced? ☒ yes ☐ no ☐ N/A

Groundwater Monitoring

Is there a plan in place and currently being followed? ☒ yes ☐ no ☐ N/A

Are the wells currently intact and operational? ☒ yes ☐ no ☐ N/A

When was the most recent sampling event report and submittal? Date: June 2021

When is the next projected sampling event? Date: September 2022

Property Use Changes / Site Development

Has the property usage changed, or site been redeveloped since the last inspection? ☒ yes ☐ no ☐ N/A

If yes, please list with date: Final restoration activities were performed related to the earlier (2020) construction of an amphitheater and boat launch. Activities primarily were related to placement of additional topsoil and seeding.

Field Inspection Report
Post-Remedial Operation, Maintenance & Monitoring Plan

New Information

Has any new information been brought to the owner/engineer's attention regarding any and/or all engineering and institutional controls and their operation and effectiveness?

☐ yes ☒ no ☐ N/A

Comments: _____

This space for Notes and Comments

Please include the following Attachments:

1. Site Sketch
2. Photographs

Attachment D

Photo Log

View of riprap and manhole for leachate/groundwater collection.

View of MWFP-2S which had been bent earlier in the year due to equipment operation. The bend has since been repaired.

View of MW-5S.

View of vegetation adjacent to the containment area (in distance).

View of vegetation over clean fill that covers soil excavated from the amphitheater construction and placed on site to create a level surface for future ball fields.

View of vegetation over clean fill that covers soil excavated from the amphitheater construction and placed on site to create a level surface for future ball fields.

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listen
The power to
solve℠

Barton
&Loguidice

www.bartonandloguidice.com

APPENDIX B
SIU Permit Requirements

TABLE 1 (Effluent Limitations)

Parameter	Daily Maximum Concentration	lb/d Daily Maximum
Flow	30,000 gpd	-
Total Toxic Organic Compounds (TTO)	1.37 mg/L	-
Total Organic Halogen (TOX)	0.1	~
BOD	~	200lb/d
COD	monitor only	~
Total Solids	~	181 lb/d
pH	5.0 – 10.5	~
Total Arsenic	~	0.0062 lb/d
Total Chromium	~	0.032 lb/d
Hex Chromium	~	0.0048 lb/d
Phenol	~	0.78 lb/d
Ammonia	~	75 lb/d
Dissolved Oxygen[1]	2.0 mg/L	~
Sulfides	9.0mg/L	~

[1] The discharge shall maintain a minimum concentration of Dissolved Oxygen content of 2.0 mg/L when sulfide concentrations are in excess of 9.0 mg/L.

c) Modification of Local Limits.

In accordance with the Municipal Code, the established local limits are subject to change and shall be modified as needed based on regulatory requirements and standards, GSTP operation, performance and processes, the industrial user base, potable water quality and domestic wastewater characteristics. Modification to the established local limits must be reviewed and approved prior to implementation. Implementation shall be effective thirty (30) days from notice of acceptance of the modified limits. New local limits will be issued as an addendum to this wastewater discharge permit. Any modification of local limits that would require the Permittee to construct and operate, or modify an existing pretreatment system, shall include a reasonable schedule of compliance.

Part 3. Operation and maintenance of pollution controls.

a) Proper operation and maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the terms of this SIU. Proper operation and maintenance includes but is not limited to: effective performance,

The samples collected by the Permittee or its authorized representative shall be analyzed for the parameters listed in Section 1. Frequency and types of samples to be taken are indicated below:

TABLE 2 (Sampling and Monitoring) revised 03/02/2020

Parameter	Sampling Location	Frequency	Sample Type
VOC's (method 8260C) Total Metals (method 6010C)	Pre-treatment Building	1/15 months	24 hr Composite
Sulfides	Pre-treatment Building	1/15 months	24 hr Composite
Chloride (9056A)	Pre-treatment Building	1/15 months	24 hr Composite
Ammonia as Nitrogen (350.1) Hardness as CacO3 (SM2340C)	Pre-treatment Building	1/15 months	24 hr Composite
Hexavalent Chromium (7196A)	Pre-treatment Building	1/15 months	Grab
Ph Dissolved Oxygen Temperature	Pre-treatment Building	1/week	Grab
Air Test Vents and visual/walkthrough inspection.	Landfill Vents	2X/year	N/A

* An updated Complete Discharge Analysis consisting of all parameters listed above, must be provided to the Village Sewer Department prior to the initial discharge.

APPENDIX C
Laboratory Data – SIU Permit Compliance Sampling

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
4	1/1/2021				11033016.00	2667.00														0.00		
5	1/2/2021																					
6	1/3/2021																					
7	1/4/2021	7.12	57.60	5.89	11041640.00	8624.00														0.01		
8	1/5/2021																					
9	1/6/2021																					
10	1/7/2021																					
11	1/8/2021																					
12	1/9/2021																					
13	1/10/2021																					
14	1/11/2021	7.40	55.20	8.40	11060172.00	18532.00														0.02		
15	1/12/2021																					
16	1/13/2021																					
17	1/14/2021																					
18	1/15/2021																					
19	1/16/2021																					
20	1/17/2021																					
21	1/18/2021	7.09	52.20	4.17	11076864.00	16692.00														0.02		
22	1/19/2021																					
23	1/20/2021																					
24	1/21/2021																					
25	1/22/2021																					
26	1/23/2021																					
27	1/24/2021																					
28	1/25/2021	7.24	60.90	4.36	11091620.00	14756.00														0.01		
29	1/26/2021																					
30	1/27/2021																					
31	1/28/2021																					
32	1/29/2021																					
33	1/30/2021																					
34	1/31/2021				11103891.00	12271.00														0.01		
35	2/1/2021	7.07	54.20	7.03	11106078.00	2187.00														0.00		
36	2/2/2021																					
37	2/3/2021																					
38	2/4/2021																					
39	2/5/2021																					
40	2/6/2021																					
41	2/7/2021																					
42	2/8/2021	7.18	53.90	2.80	11120103.00	14025.00														0.01		
43	2/9/2021																					
44	2/10/2021																					
45	2/11/2021																					
46	2/12/2021																					
47	2/13/2021																					
48	2/14/2021																					
49	2/15/2021	7.22	57.30	3.29	11132993.00	12890.00														0.01		
50	2/16/2021																					
51	2/17/2021																					
52	2/18/2021																					
53	2/19/2021																					
54	2/20/2021																					

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
4	1/1/2021																			
5	1/2/2021																			
6	1/3/2021																			
7	1/4/2021																			
8	1/5/2021																			
9	1/6/2021																			
10	1/7/2021																			
11	1/8/2021																			
12	1/9/2021																			
13	1/10/2021																			
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35	2/1/2021																			
36	2/2/2021																			
37	2/3/2021																			
38	2/4/2021																			
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42	2/8/2021																			
43	2/9/2021																			
44	2/10/2021																			
45	2/11/2021																			
46	2/12/2021																			
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50	2/16/2021																			
51	2/17/2021																			
52	2/18/2021																			
53	2/19/2021																			
54	2/20/2021																			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
55	2/21/2021																					
56	2/22/2021	7.41	52.90	9.61	11144830.00	11837.00														0.01		
57	2/23/2021																					
58	2/24/2021																					
59	2/25/2021																					
60	2/26/2021																					
61	2/27/2021																					
62	2/28/2021				11153780.00	8950.00														0.01		
63	3/1/2021	6.98	48.80	3.67	11155334.00	1554.00														0.00		
64	3/2/2021																					
65	3/3/2021																					
66	3/4/2021																					
67	3/5/2021																					
68	3/6/2021																					
69	3/7/2021																					
70	3/8/2021	7.32	59.20	3.64	11166941.00	11607.00														0.01		
71	3/9/2021																					
72	3/10/2021																					
73	3/11/2021																					
74	3/12/2021																					
75	3/13/2021																					
76	3/14/2021																					
77	3/15/2021	7.42	55.90	2.80	11180235.00	13294.00														0.01		
78	3/16/2021																					
79	3/17/2021																					
80	3/18/2021																					
81	3/19/2021																					
82	3/20/2021																					
83	3/21/2021																					
84	3/22/2021	7.45	55.10	4.01	11185878.00	5643.00														0.01		
85	3/23/2021																					
86	3/24/2021																					
87	3/25/2021																					
88	3/26/2021																					
89	3/27/2021																					
90	3/28/2021																					
91	3/29/2021	7.32	52.90	2.62	11198511.00	12633.00														0.01		
92	3/30/2021																					
93	3/31/2021				11201803.00	3992.00														0.00		
94	4/1/2021				11203613.00	1810.00														0.00		
95	4/2/2021																					
96	4/3/2021																					
97	4/4/2021																					
98	4/5/2021	7.38	58.70	2.58	11210800.00	7187.00														0.01		
99	4/6/2021																					
100	4/7/2021																					
101	4/8/2021																					
102	4/9/2021																					
103	4/10/2021																					
104	4/11/2021																					
105	4/12/2021	7.25	60.50	3.38	11224687.00	13887.00														0.01		

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
55	2/21/2021																			
56	2/22/2021																			
57	2/23/2021																			
58	2/24/2021																			
59	2/25/2021																			
60	2/26/2021																			
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62	2/28/2021																			
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103	4/10/2021																			
104	4/11/2021																			
105	4/12/2021																			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
106	4/13/2021																					
107	4/14/2021																					
108	4/15/2021																					
109	4/16/2021																					
110	4/17/2021																					
111	4/18/2021																					
112	4/19/2021	7.15	62.00	3.45	11239732.00	15045.00														0.02		
113	4/20/2021																					
114	4/21/2021																					
115	4/22/2021																					
116	4/23/2021																					
117	4/24/2021																					
118	4/25/2021																					
119	4/26/2021	7.35	59.80	2.91	11253770.00	14038.00														0.01		
120	4/27/2021																					
121	4/28/2021																					
122	4/29/2021																					
123	4/30/2021				11261164.00	7394.00														0.01		
124	5/1/2021				11263015.00	1851.00														0.00		
125	5/2/2021																					
126	5/3/2021	7.29	62.90	5.55	11266890.00	3875.00														0.00		
127	5/4/2021																					
128	5/5/2021																					
129	5/6/2021																					
130	5/7/2021																					
131	5/8/2021																					
132	5/9/2021																					
133	5/10/2021	7.34	60.60	6.81	11279351.00	12461.00														0.01		
134	5/11/2021																					
135	5/12/2021																					
136	5/13/2021																					
137	5/14/2021																					
138	5/15/2021																					
139	5/16/2021																					
140	5/17/2021	7.16	59.80	4.53	11290762.00	11411.00														0.01		
141	5/18/2021																					
142	5/19/2021																					
143	5/20/2021																					
144	5/21/2021																					
145	5/22/2021																					
146	5/23/2021																					
147	5/24/2021	7.28	63.50	3.63	11302321.00	11559.00														0.01		
148	5/25/2021																					
149	5/26/2021																					
150	5/27/2021																					
151	5/28/2021																					
152	5/29/2021																					
153	5/30/2021																					
154	5/31/2021	7.10	62.50	4.51	11314130.00	11809.00														0.01		
155	6/1/2021				11315825.00	1695.00														0.00		
156	6/2/2021																					

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
106	4/13/2021																			
107	4/14/2021																			
108	4/15/2021																			
109	4/16/2021																			
110	4/17/2021																			
111	4/18/2021																			
112	4/19/2021																			
113	4/20/2021																			
114	4/21/2021																			
115	4/22/2021																			
116	4/23/2021																			
117	4/24/2021																			
118	4/25/2021																			
119	4/26/2021																			
120	4/27/2021																			
121	4/28/2021																			
122	4/29/2021																			
123	4/30/2021																			
124	5/1/2021																			
125	5/2/2021																			
126	5/3/2021																			
127	5/4/2021																			
128	5/5/2021																			
129	5/6/2021																			
130	5/7/2021																			
131	5/8/2021																			
132	5/9/2021																			
133	5/10/2021																			
134	5/11/2021																			
135	5/12/2021																			
136	5/13/2021																			
137	5/14/2021																			
138	5/15/2021																			
139	5/16/2021																			
140	5/17/2021																			
141	5/18/2021																			
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144	5/21/2021																			
145	5/22/2021																			
146	5/23/2021																			
147	5/24/2021																			
148	5/25/2021																			
149	5/26/2021																			
150	5/27/2021																			
151	5/28/2021																			
152	5/29/2021																			
153	5/30/2021																			
154	5/31/2021																			
155	6/1/2021																			
156	6/2/2021																			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
157	6/3/2021																					
158	6/4/2021																					
159	6/5/2021																					
160	6/6/2021																					
161	6/7/2021	7.25	65.60	2.85	11325945.00	10120.00														0.01		
162	6/8/2021																					
163	6/9/2021																					
164	6/10/2021																					
165	6/11/2021																					
166	6/12/2021																					
167	6/13/2021																					
168	6/14/2021	7.24	68.40	7.10	11338390.00	12445.00														0.01		
169	6/15/2021																					
170	6/16/2021																					
171	6/17/2021																					
172	6/18/2021																					
173	6/19/2021																					
174	6/20/2021																					
175	6/21/2021	7.22	70.70	3.63	11350136.00	11746.00														0.01		
176	6/22/2021																					
177	6/23/2021																					
178	6/24/2021																					
179	6/25/2021																					
180	6/26/2021																					
181	6/27/2021																					
182	6/28/2021	7.22	69.70	3.31	11361721.00	11585.00														0.01		
183	6/29/2021																					
184	6/30/2021				11365041.00	3320.00														0.00		
185	7/1/2021				11366627.00	1586.00														0.00		
186	7/2/2021																					
187	7/3/2021																					
188	7/4/2021																					
189	7/5/2021	7.13	69.20	2.54	11371985.00	5358.00														0.01		
190	7/6/2021																					
191	7/7/2021																					
192	7/8/2021																					
193	7/9/2021																					
194	7/10/2021																					
195	7/11/2021																					
196	7/12/2021	7.20	69.70	2.88	11393574.00	21589.00														0.02		
197	7/13/2021																					
198	7/14/2021																					
199	7/15/2021																					
200	7/16/2021																					
201	7/17/2021																					
202	7/18/2021																					
203	7/19/2021	7.07	69.40	2.62	11416668.00	23095.00														0.02		
204	7/20/2021																					
205	7/21/2021																					
206	7/22/2021																					
207	7/23/2021																					

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
157	6/3/2021																			
158	6/4/2021																			
159	6/5/2021																			
160	6/6/2021																			
161	6/7/2021																			
162	6/8/2021																			
163	6/9/2021																			
164	6/10/2021																			
165	6/11/2021																			
166	6/12/2021																			
167	6/13/2021																			
168	6/14/2021																			
169	6/15/2021																			
170	6/16/2021																			
171	6/17/2021																			
172	6/18/2021																			
173	6/19/2021																			
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176	6/22/2021																			
177	6/23/2021																			
178	6/24/2021																			
179	6/25/2021																			
180	6/26/2021																			
181	6/27/2021																			
182	6/28/2021																			
183	6/29/2021																			
184	6/30/2021																			
185	7/1/2021																			
186	7/2/2021																			
187	7/3/2021																			
188	7/4/2021																			
189	7/5/2021																			
190	7/6/2021																			
191	7/7/2021																			
192	7/8/2021																			
193	7/9/2021																			
194	7/10/2021																			
195	7/11/2021																			
196	7/12/2021																			
197	7/13/2021																			
198	7/14/2021																			
199	7/15/2021																			
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201	7/17/2021																			
202	7/18/2021																			
203	7/19/2021																			
204	7/20/2021																			
205	7/21/2021																			
206	7/22/2021																			
207	7/23/2021																			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
208	7/24/2021																					
209	7/25/2021																					
210	7/26/2021	7.16	70.60	2.56	11441453.00	24785.00														0.02		
211	7/27/2021																					
212	7/28/2021																					
213	7/29/2021																					
214	7/30/2021																					
215	7/31/2021				11459630.00	18177.00														0.02		
216	8/1/2021				11463135.00	3505.00														0.00		
217	8/2/2021	7.27	69.20	5.36	11466808.00	3673.00														0.00		
218	8/3/2021																					
219	8/4/2021																					
220	8/5/2021																					
221	8/6/2021																					
222	8/7/2021																					
223	8/8/2021																					
224	8/9/2021	7.24	70.20	3.92	11491840.00	25032.00														0.03		
225	8/10/2021																					
226	8/11/2021																					
227	8/12/2021																					
228	8/13/2021																					
229	8/14/2021																					
230	8/15/2021																					
231	8/16/2021	7.22	73.30	1.74	11534650.00	10179.00														0.01		
232	8/17/2021																					
233	8/18/2021																					
234	8/19/2021																					
235	8/20/2021																					
236	8/21/2021																					
237	8/22/2021																					
238	8/23/2021	7.06	69.80	2.82	11534650.00	32631.00														0.03		
239	8/24/2021																					
240	8/25/2021																					
241	8/26/2021																					
242	8/27/2021																					
243	8/28/2021																					
244	8/29/2021																					
245	8/30/2021	7.17	70.70	2.57	11566873.00	32223.00														0.03		
246	8/31/2021					9008.00														0.01		
247	9/1/2021				11575881.00	4579.00														0.00		
248	9/2/2021																					
249	9/3/2021																					
250	9/4/2021																					
251	9/5/2021																					
252	9/6/2021	7.25	69.30	4.14	11596939.00	21058.00														0.02		
253	9/7/2021																					
254	9/8/2021																					
255	9/9/2021																					
256	9/10/2021																					
257	9/11/2021																					
258	9/12/2021																					

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
208	7/24/2021																			
209	7/25/2021																			
210	7/26/2021																			
211	7/27/2021																			
212	7/28/2021																			
213	7/29/2021																			
214	7/30/2021																			
215	7/31/2021																			
216	8/1/2021																			
217	8/2/2021																			
218	8/3/2021																			
219	8/4/2021																			
220	8/5/2021																			
221	8/6/2021																			
222	8/7/2021																			
223	8/8/2021																			
224	8/9/2021																			
225	8/10/2021																			
226	8/11/2021																			
227	8/12/2021																			
228	8/13/2021																			
229	8/14/2021																			
230	8/15/2021																			
231	8/16/2021																			
232	8/17/2021																			
233	8/18/2021																			
234	8/19/2021																			
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238	8/23/2021																			
239	8/24/2021																			
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242	8/27/2021																			
243	8/28/2021																			
244	8/29/2021																			
245	8/30/2021																			
246	8/31/2021																			
247	9/1/2021																			
248	9/2/2021																			
249	9/3/2021																			
250	9/4/2021																			
251	9/5/2021																			
252	9/6/2021																			
253	9/7/2021																			
254	9/8/2021																			
255	9/9/2021																			
256	9/10/2021																			
257	9/11/2021																			
258	9/12/2021																			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
259	9/13/2021	7.22	69.50	2.24	11615946.00	19008.00														0.02		
260	9/14/2021																					
261	9/15/2021																					
262	9/16/2021																					
263	9/17/2021																					
264	9/18/2021																					
265	9/19/2021																					
266	9/20/2021	7.17	68.50	3.88	11648251.00	32305.00														0.03		
267	9/21/2021																					
268	9/22/2021																					
269	9/23/2021				11662123.00	13872.00			0.01	170.00		1.00	158.00				0.00	18.28		0.01		
270	9/24/2021																					
271	9/25/2021																					
272	9/26/2021																					
273	9/27/2021	7.15	69.50	2.27	11680618.00	32367.00														0.03		
274	9/28/2021																					
275	9/29/2021																					
276	9/30/2021				11694683.00	14065.00														0.01		
277	10/1/2021				11699306.00	4623.00														0.00		
278	10/2/2021																					
279	10/3/2021																					
280	10/4/2021	7.20	67.80	3.86	11713147.00	13841.00														0.01		
281	10/5/2021																					
282	10/6/2021																					
283	10/7/2021																					
284	10/8/2021																					
285	10/9/2021																					
286	10/10/2021																					
287	10/11/2021	7.23	67.30	3.83	11744828.00	31681.00														0.03		
288	10/12/2021																					
289	10/13/2021																					
290	10/14/2021																					
291	10/15/2021																					
292	10/16/2021																					
293	10/17/2021																					
294	10/18/2021				11770535.00	25707.00														0.03		
295	10/19/2021																					
296	10/20/2021																					
297	10/21/2021																					
298	10/22/2021																					
299	10/23/2021																					
300	10/24/2021																					
301	10/25/2021																					
302	10/26/2021	7.25	63.90	3.70	11770541.00	6.00														0.00		
303	10/27/2021																					
304	10/28/2021																					
305	10/29/2021																					
306	10/30/2021																					
307	10/31/2021				11770543.00	2.00														0.00		
308	11/1/2021				11770543.00	0.00														0.00		
309	11/2/2021																					

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
259	9/13/2021																			
260	9/14/2021																			
261	9/15/2021																			
262	9/16/2021																			
263	9/17/2021																			
264	9/18/2021																			
265	9/19/2021																			
266	9/20/2021																			
267	9/21/2021																			
268	9/22/2021																			
269	9/23/2021																			
270	9/24/2021																			
271	9/25/2021																			
272	9/26/2021																			
273	9/27/2021																			
274	9/28/2021																			
275	9/29/2021																			
276	9/30/2021																			
277	10/1/2021																			
278	10/2/2021																			
279	10/3/2021																			
280	10/4/2021																			
281	10/5/2021																			
282	10/6/2021																			
283	10/7/2021																			
284	10/8/2021																			
285	10/9/2021																			
286	10/10/2021																			
287	10/11/2021																			
288	10/12/2021																			
289	10/13/2021																			
290	10/14/2021																			
291	10/15/2021																			
292	10/16/2021																			
293	10/17/2021																			
294	10/18/2021																			
295	10/19/2021																			
296	10/20/2021																			
297	10/21/2021																			
298	10/22/2021																			
299	10/23/2021																			
300	10/24/2021																			
301	10/25/2021																			
302	10/26/2021																			
303	10/27/2021																			
304	10/28/2021																			
305	10/29/2021																			
306	10/30/2021																			
307	10/31/2021																			
308	11/1/2021																			
309	11/2/2021																			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
310	11/3/2021																					
311	11/4/2021																					
312	11/5/2021																					
313	11/6/2021																					
314	11/7/2021																					
315	11/8/2021	7.09	63.60	4.32	11785267.00	14724.00														0.01		
316	11/9/2021																					
317	11/10/2021																					
318	11/11/2021																					
319	11/12/2021																					
320	11/13/2021																					
321	11/14/2021																					
322	11/15/2021	7.26	66.10	3.81	11807674.00	22407.00														0.02		
323	11/16/2021																					
324	11/17/2021																					
325	11/18/2021																					
326	11/19/2021																					
327	11/20/2021																					
328	11/21/2021																					
329	11/22/2021	7.24	60.30	2.05	11829771.00	22097.00														0.02		
330	11/23/2021																					
331	11/24/2021																					
332	11/25/2021																					
333	11/26/2021																					
334	11/27/2021																					
335	11/28/2021																					
336	11/29/2021	7.15	57.90	3.88	11852554.00	22783.00														0.02		
337	11/30/2021				11856469.00	3915.00														0.00		
338	12/1/2021				11861586.00	5117.00														0.01		
339	12/2/2021																					
340	12/3/2021																					
341	12/4/2021																					
342	12/5/2021																					
343	12/6/2021	7.40	59.20	6.00	11886594.00	25008.00														0.03		
344	12/7/2021																					
345	12/8/2021																					
346	12/9/2021																					
347	12/10/2021																					
348	12/11/2021																					
349	12/12/2021																					
350	12/13/2021	7.40	58.40	3.71	11920237.00	33643.00														0.03		
351	12/14/2021																					
352	12/15/2021																					
353	12/16/2021																					
354	12/17/2021																					
355	12/18/2021																					
356	12/19/2021																					
357	12/20/2021	7.38	55.40	4.24	11953705.00	33468.00														0.03		
358	12/21/2021																					
359	12/22/2021																					
360	12/23/2021																					

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
310	11/3/2021																			
311	11/4/2021																			
312	11/5/2021																			
313	11/6/2021																			
314	11/7/2021																			
315	11/8/2021																			
316	11/9/2021																			
317	11/10/2021																			
318	11/11/2021																			
319	11/12/2021																			
320	11/13/2021																			
321	11/14/2021																			
322	11/15/2021																			
323	11/16/2021																			
324	11/17/2021																			
325	11/18/2021																			
326	11/19/2021																			
327	11/20/2021																			
328	11/21/2021																			
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330	11/23/2021																			
331	11/24/2021																			
332	11/25/2021																			
333	11/26/2021																			
334	11/27/2021																			
335	11/28/2021																			
336	11/29/2021																			
337	11/30/2021																			
338	12/1/2021																			
339	12/2/2021																			
340	12/3/2021																			
341	12/4/2021																			
342	12/5/2021																			
343	12/6/2021																			
344	12/7/2021																			
345	12/8/2021																			
346	12/9/2021																			
347	12/10/2021																			
348	12/11/2021																			
349	12/12/2021																			
350	12/13/2021																			
351	12/14/2021																			
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354	12/17/2021																			
355	12/18/2021																			
356	12/19/2021																			
357	12/20/2021																			
358	12/21/2021																			
359	12/22/2021																			
360	12/23/2021																			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
2		Peter Cooper PH Min. 5.0	Peter Cooper Temp.	Peter Cooper D.O. Min.	Peter Cooper Totalizer Meter Reading	Peter Cooper Total Flow	Peter Cooper BOD	Peter Cooper Suspended	Peter Cooper Phenols	Peter Cooper TKN	Peter Cooper Sulfates	Peter Cooper Sulfides	Peter Cooper Amonia	Peter Cooper Tot. Org. Hal.	Peter Cooper BOD	Peter Cooper Sus. Solids Load	Peter Cooper Phenol	Peter Cooper Amonia	Peter Cooper Sulfides (in	Peter Cooper Total Daily	Monthly Average Flow	Peter Cooper Vent # 1 O2
3	Date	SU	Deg C	mg/l	gpd	gpd	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	mg/l	MGD	MGD	
361	12/24/2021																					
362	12/25/2021																					
363	12/26/2021																					
364	12/27/2021	7.46	55.50	2.40	11986929.00	33224.00														0.03		
365	12/28/2021																					
366	12/29/2021																					20.70
367	12/30/2021																					
368	12/31/2021				11991752.00	4823.00														0.00		

	A	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2		Peter Cooper Vent # 1 CO	Peter Cooper Vent # 1	Peter Cooper Vent # 1	Peter Cooper Vent # 2 O2	Peter Cooper Vent # 2 CO	Peter Cooper Vent # 2	Peter Cooper Vent # 2	Peter Cooper Vent # 3 O2	Peter Cooper Vent # 3 CO	Peter Cooper Vent # 3	Peter Cooper Vent # 3	Peter Cooper Vent # 4 O2	Peter Cooper Vent # 4 CO	Peter Cooper Vent # 4	Peter Cooper Vent # 4	Peter Cooper Vent # 5 O2	Peter Cooper Vent # 5 CO	Peter Cooper Vent # 5	Peter Cooper Vent # 5
3	Date																			
361	12/24/2021																			
362	12/25/2021																			
363	12/26/2021																			
364	12/27/2021																			
365	12/28/2021																			
366	12/29/2021	2.00	0.00	0.00	20.70	2.00	0.00	13.00	20.80	3.00	0.00	0.00	20.90	0.00	0.00	0.00	20.90	1.00	0.00	0.00
367	12/30/2021																			
368	12/31/2021																			

MICROBAC®

Microbac Laboratories Inc., Pittsburgh Division

CERTIFICATE OF ANALYSIS

1091954

Gowanda, Village of WWTP

Andrew Carriero
27 East Main Street
Gowanda, NY 14070

Project Name: Peter Cooper

Project / PO Number: N/A
Received: 09/23/2021
Reported: 10/06/2021

Analytical Testing Parameters

Client Sample ID:	Peter Cooper		
Sample Matrix:	Aqueous	**Collected By:**	A.Carriero
Lab Sample ID:	1091954-01	**Collection Date:**	09/23/2021 7:30

Analyses Performed by: Microbac Laboratories Inc., - Marietta, OH

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 420.1								
Phenols - 4AAP	<0.0055	0.0055	mg/L	1		09/28/21 1105	09/28/21 1730	EPT
SM 4500-$S2^{-}$ F-2011								
Sulfide as S	<1.00	1.00	mg/L	1		09/27/21 1740	09/27/21 1742	EPT

Metals Total by AA	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 245.1, Rv. 3 (1994)								
Mercury	<0.000200	0.000200	mg/L	1		09/28/21 0609	09/29/21 1236	TMM

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8260D								
Acetone	<5	5	ug/L	1			10/04/21 2001	JDS
Acetonitrile	<100	100	ug/L	1	**Q8**		10/04/21 2001	JDS
Acrolein	<100	100	ug/L	1	**Q8**		10/04/21 2001	JDS
Acrylonitrile	<5	5	ug/L	1			10/04/21 2001	JDS
a-Methylstyrene	<5	5	ug/L	1	**Y**		10/04/21 2001	JDS
Tert-Amyl-Methyl ether	<10	10	ug/L	1			10/04/21 2001	JDS
Benzene	<1	1	ug/L	1			10/04/21 2001	JDS
Bromobenzene	<1	1	ug/L	1			10/04/21 2001	JDS
Bromochloromethane	<1	1	ug/L	1			10/04/21 2001	JDS
Bromodichloromethane	<1	1	ug/L	1			10/04/21 2001	JDS
Bromoform	<1	1	ug/L	1			10/04/21 2001	JDS
Bromomethane	<1	1	ug/L	1			10/04/21 2001	JDS
1-Bromopropane	<1	1	ug/L	1	**Y**		10/04/21 2001	JDS
1,3-Butadiene	<5	5	ug/L	1	**Y**		10/04/21 2001	JDS
2-Butanone	<5	5	ug/L	1	**Q8**		10/04/21 2001	JDS
tert-Butyl alcohol	<100	100	ug/L	1			10/04/21 2001	JDS
sec-Butylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
tert-Butylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
n-Butylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
Carbon disulfide	<1	1	ug/L	1			10/04/21 2001	JDS
Carbon tetrachloride	<1	1	ug/L	1			10/04/21 2001	JDS
2-Chloro-1,3-butadiene	<5	5	ug/L	1			10/04/21 2001	JDS
Chlorobenzene	<1	1	ug/L	1			10/04/21 2001	JDS
Chlorodibromomethane	<1	1	ug/L	1			10/04/21 2001	JDS

CERTIFICATE OF ANALYSIS

1091954

Client Sample ID:	Peter Cooper		
Sample Matrix:	Aqueous	**Collected By:**	A.Carriero
Lab Sample ID:	1091954-01	**Collection Date:**	09/23/2021 7:30

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chloroethane (Ethyl chloride)	<1	1	ug/L	1			10/04/21 2001	JDS
2-Chloroethyl vinyl ether	<5	5	ug/L	1			10/04/21 2001	JDS
Chloroform	<1	1	ug/L	1			10/04/21 2001	JDS
1-Chlorohexane	<1	1	ug/L	1	Y		10/04/21 2001	JDS
4-Chlorotoluene	<1	1	ug/L	1			10/04/21 2001	JDS
2-Chlorotoluene	<1	1	ug/L	1			10/04/21 2001	JDS
3-Chloro-1-Propene	<5	5	ug/L	1			10/04/21 2001	JDS
Cyclohexane	<5	5	ug/L	1			10/04/21 2001	JDS
Cyclohexanone	<50	50	ug/L	1	Q2, Q8, Y		10/04/21 2001	JDS
1,2-Dibromo-3-chloropropane	<2	2	ug/L	1	Y		10/04/21 2001	JDS
1,2-Dibromoethane	<1	1	ug/L	1			10/04/21 2001	JDS
Dibromomethane	<1	1	ug/L	1			10/04/21 2001	JDS
trans-1,4-Dichloro-2-butene	<5	5	ug/L	1			10/04/21 2001	JDS
1,2-Dichlorobenzene	<1	1	ug/L	1			10/04/21 2001	JDS
1,4-Dichlorobenzene	<1	1	ug/L	1			10/04/21 2001	JDS
1,3-Dichlorobenzene	<1	1	ug/L	1			10/04/21 2001	JDS
Dichlorodifluoromethane	<1	1	ug/L	1			10/04/21 2001	JDS
1,1-Dichloroethane	<1	1	ug/L	1			10/04/21 2001	JDS
1,2-Dichloroethane	<1	1	ug/L	1			10/04/21 2001	JDS
1,2-Dichloroethene	<1	1	ug/L	1			10/04/21 2001	JDS
trans-1,2-Dichloroethene	<1	1	ug/L	1			10/04/21 2001	JDS
1,1-Dichloroethene	<1	1	ug/L	1			10/04/21 2001	JDS
cis-1,2-Dichloroethene	<1	1	ug/L	1			10/04/21 2001	JDS
1,2-Dichloropropane	<1	1	ug/L	1			10/04/21 2001	JDS
2,2-Dichloropropane	<1	1	ug/L	1			10/04/21 2001	JDS
1,3-Dichloropropane	<1	1	ug/L	1			10/04/21 2001	JDS
cis-1,3-Dichloropropene	<1	1	ug/L	1			10/04/21 2001	JDS
trans-1,3-Dichloropropene	<1	1	ug/L	1			10/04/21 2001	JDS
1,1-Dichloropropene	<1	1	ug/L	1			10/04/21 2001	JDS
1,3-Dichloropropene	<1	1	ug/L	1			10/04/21 2001	JDS
Diethyl ether	<10	10	ug/L	1			10/04/21 2001	JDS
Di-isopropyl ether	<10	10	ug/L	1			10/04/21 2001	JDS
Dimethyl disulfide	<5	5	ug/L	1	Y		10/04/21 2001	JDS
Dimethyl sulfide	<5	5	ug/L	1	Y		10/04/21 2001	JDS
1,4-Dioxane	<100	100	ug/L	1	Y		10/04/21 2001	JDS
Ethyl acetate	<50	50	ug/L	1	Q8, Y		10/04/21 2001	JDS
Ethylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
Ethyl-Tert-Butyl ether	<10	10	ug/L	1			10/04/21 2001	JDS
Ethyl methacrylate	<5	5	ug/L	1			10/04/21 2001	JDS
Hexachlorobutadiene	<1	1	ug/L	1			10/04/21 2001	JDS
n-Hexane	<5	5	ug/L	1	Y		10/04/21 2001	JDS
2-Hexanone	<5	5	ug/L	1			10/04/21 2001	JDS
Iodomethane	<1	1	ug/L	1	Q7, Y		10/04/21 2001	JDS

CERTIFICATE OF ANALYSIS

1091954

Client Sample ID:	Peter Cooper		
Sample Matrix:	Aqueous	**Collected By:**	A.Carriero
Lab Sample ID:	1091954-01	**Collection Date:**	09/23/2021 7:30

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Isobutyl alcohol (2-Methyl-1-propanol)	<100	100	ug/L	1	Q8		10/04/21 2001	JDS
Isoprene	<5	5	ug/L	1	Y		10/04/21 2001	JDS
Isopropylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
p-Isopropyltoluene	<1	1	ug/L	1			10/04/21 2001	JDS
Methacrylonitrile	<5	5	ug/L	1	Q8		10/04/21 2001	JDS
Methyl acetate	<5	5	ug/L	1			10/04/21 2001	JDS
Methyl Cyclohexane	<5	5	ug/L	1	Y		10/04/21 2001	JDS
Methylene chloride	<1	1	ug/L	1			10/04/21 2001	JDS
Methyl methacrylate	<5	5	ug/L	1			10/04/21 2001	JDS
4-Methyl-2-pentanone	<5	5	ug/L	1			10/04/21 2001	JDS
Methyl t-butyl ether (MTBE)	<1	1	ug/L	1			10/04/21 2001	JDS
Naphthalene	<1	1	ug/L	1			10/04/21 2001	JDS
2-Nitropropane	<50	50	ug/L	1	Y		10/04/21 2001	JDS
n-Propylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
Styrene	<1	1	ug/L	1			10/04/21 2001	JDS
1,1,1,2-Tetrachloroethane	<1	1	ug/L	1			10/04/21 2001	JDS
1,1,2,2-Tetrachloroethane	<1	1	ug/L	1			10/04/21 2001	JDS
Tetrachloroethene	<1	1	ug/L	1			10/04/21 2001	JDS
Tetrahydrofuran	<50	50	ug/L	1			10/04/21 2001	JDS
Toluene	<1	1	ug/L	1			10/04/21 2001	JDS
1,2,3-Trichlorobenzene	<1	1	ug/L	1			10/04/21 2001	JDS
1,2,4-Trichlorobenzene	<1	1	ug/L	1			10/04/21 2001	JDS
1,1,1-Trichloroethane	<1	1	ug/L	1			10/04/21 2001	JDS
1,1,2-Trichloroethane	<1	1	ug/L	1			10/04/21 2001	JDS
Trichloroethene	<1	1	ug/L	1			10/04/21 2001	JDS
Trichlorofluoromethane	<1	1	ug/L	1	Y		10/04/21 2001	JDS
1,2,3-Trichloropropane	<1	1	ug/L	1	Y		10/04/21 2001	JDS
1,1,2-Trichloro-1,2,2-trifluoroethane	<5	5	ug/L	1			10/04/21 2001	JDS
1,2,4-Trimethylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
1,3,5-Trimethylbenzene	<1	1	ug/L	1			10/04/21 2001	JDS
Vinyl acetate	<5	5	ug/L	1			10/04/21 2001	JDS
Vinyl chloride	<1	1	ug/L	1			10/04/21 2001	JDS
m-,p-Xylene	<1	1	ug/L	1			10/04/21 2001	JDS
o-Xylene	<1	1	ug/L	1			10/04/21 2001	JDS
Xylenes	<1	1	ug/L	1			10/04/21 2001	JDS
Surrogate: 4-Bromofluorobenzene	95.7	Limit: 86-115	% Rec	1			10/04/21 2001	JDS
Surrogate: Dibromofluoromethane	107	Limit: 86-118	% Rec	1			10/04/21 2001	JDS
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 80-120	% Rec	1			10/04/21 2001	JDS
Surrogate: Toluene-d8	95.1	Limit: 88-110	% Rec	1			10/04/21 2001	JDS

Analyses Performed by: Microbac Laboratories Inc., Pittsburgh Division

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
SM 4500-NH3 B-2011/SM 4500-NH3 F-2011								

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Microbac Laboratories Inc., Pittsburgh Division

CERTIFICATE OF ANALYSIS

1091954

Client Sample ID:	Peter Cooper		
Sample Matrix:	Aqueous	**Collected By:**	A.Carriero
Lab Sample ID:	1091954-01	**Collection Date:**	09/23/2021 7:30

Inorganics Total	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Ammonia as N	**158**	7.50	mg/L	25		09/24/21 0835	09/24/21 1304	BAC
SM 4500-Norg C-2011/SM 4500-NH3 F-2011								
Total Kjeldahl Nitrogen - TKN	**170**	40.0	mg/L	32		09/24/21 0820	09/24/21 1543	BAC

Metals Total by ICP	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Calculation								
Total Hardness as CaCO3	**781**	3.32	mg/L	5		09/24/21 1153	09/30/21 1940	SEA
EPA 200.7, Rv. 4.4 (1994)								
Arsenic	<0.010	0.010	mg/L	1		09/24/21 1153	09/27/21 2311	SEA
Barium	**0.157**	0.0020	mg/L	1		09/24/21 1153	09/27/21 2311	SEA
Calcium	**207**	1.00	mg/L	5		09/24/21 1153	09/30/21 1940	SEA
Chromium	**0.034**	0.002	mg/L	1		09/24/21 1153	09/27/21 2311	SEA
Lead	<0.007	0.007	mg/L	1		09/24/21 1153	09/27/21 2311	SEA
Magnesium	**64.0**	0.20	mg/L	1		09/24/21 1153	09/27/21 2311	SEA
Selenium	<0.020	0.020	mg/L	1		09/24/21 1153	09/27/21 2311	SEA
Silver	<0.004	0.004	mg/L	1		09/24/21 1153	09/27/21 2311	SEA
Cadmium	<0.0006	0.0006	mg/L	1		09/24/21 1153	09/27/21 2311	SEA

Definitions

mg/L:	Milligrams per Liter
Q2:	LCS recovery is above acceptance limits. However there is no impact on the reported value.
Q7:	CCV recovery is above acceptance limits. However there is no impact on the reported value.
Q8:	CCV recovery is below acceptance limits. The reported value is estimated.
RL:	Reporting Limit
ug/L:	Micrograms per Liter
Y:	This analyte is not on the laboratory's current scope of accreditation.

Project Requested Certification(s)

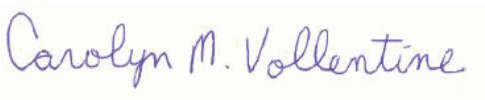
Microbac Laboratories Inc., - Marietta, OH	
10861	New York State Department of Health
Microbac Laboratories Inc., Pittsburgh Division	
10121	New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. ***The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

Reviewed and Approved By:



Carolyn Vollentine
Service Center Manager
Reported: 10/06/2021 17:00

MICROBAC®

Chain of Custody

Microbac Laboratories Inc., Pittsburgh Division

Lab Manager: Carolyn Vollentine

1091954

TAT 7 days

Gowanda, Village of WWTP

Andrew Carriero
27 East Main Street
Gowanda, NY 14070
Phone: (716) 532-5931

Project Name: Peter Cooper

Project/PO Number: N/A
Tenatively Scheduled: 9/8/2021
Route:

Client Sample ID: Peter Cooper
Lab Sample ID: 1091954-01
Matrix: Aqueous
Type:

Sampled Date & Time: 9-23-2021 / 7:30AM

Analysis	Method	Field Results/Comments	Hold Time
Metals, RCRA (Aqueous, Total)	varies		180.00 days
Sulfate as S by EPA 300.0	varies		28.00 days
Total Hardness as CaCO3 (Package)	varies		180.00 days
Volatile Organics by EPA 8260C	EPA 8260C		7.00 days
Nitrogen, Ammonia, Distilled by SM4500 NH3 B/F	SM 4500-NH3 F-2011		28.00 days
Nitrogen, Kjeldahl	SM 4500-NH3 F-2011		28.00 days
Phenolics, Total by EPA 420.1	EPA 420.1		28.00 days
Sulfide by SM4500-S2 F	SM 4500 S2 F-00		7.00 days

Container(s)	Designator
500ml-Bottle HDPE-HNO3	A
250ml-Bottle HDPE-H2SO4	B
500ml-Bottle HDPE-H2SO4	C
250ml-Bottle Glass Amber-H2SO4	D
1L-Bottle HDPE — did not rec. SS 9/23/21	E
250ml-Bottle HDPE-ZnAc NaOH	F
40ml-Vial > HCl	G
40ml-Vial > HCl	H
40ml-Vial > HCl	I

Sampled/Relinquished by: A. Carriero	Date/Time: 9-23-2021 / 8:25	Received by:	
Printed Name: A. CARRIERO		Printed Name: Tim McLaughlin	
Relinquished by:	Date/Time: 9-23-21 1145	Received by:	
Printed Name: Tim McLaughlin		Printed Name:	
Relinquished by:	Date/Time: 9/23/21 1425	Received by:	
Printed Name:		Printed Name:	

As Received at Laboratory: On Ice: Yes / No Temp: 0.6 °C Thermometer ID: T136 Total Containers: 9.00

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:

Microbac Laboratories, Inc.
100 Marshall Drive | Warrendale, PA 15086 | 724-772-0610 p | www.microbac.com

APPENDIX D
Imported Materials Documentation

ANALYTICAL REPORT

Lab Number:	L2134141
Client:	C&S Companies 141 Elm Street, Suite 100 Buffalo, NY
ATTN:	Jesse Alt-Winzig
Phone:	(716) 847-1630
Project Name:	ST. GEORGE STOCKPILE - GOWANDA
Project Number:	U37.002.002
Report Date:	07/26/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2134141-01	SP-1	SOIL	FREDONIA, NY	06/23/21 14:00	06/23/21
L2134141-02	SP-2	SOIL	FREDONIA, NY	06/23/21 14:10	06/23/21
L2134141-03	SP-3	SOIL	FREDONIA, NY	06/23/21 14:20	06/23/21
L2134141-04	SP-4	SOIL	FREDONIA, NY	06/23/21 14:30	06/23/21
L2134141-05	SP-5	SOIL	FREDONIA, NY	06/23/21 14:30	06/23/21

Project Name:	ST. GEORGE STOCKPILE - GOWANDA	**Lab Number:**	L2134141
Project Number:	U37.002.002	**Report Date:**	07/26/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	ST. GEORGE STOCKPILE - GOWANDA	**Lab Number:**	L2134141
Project Number:	U37.002.002	**Report Date:**	07/26/21

Case Narrative (continued)

Report Submission

July 26, 2021: This final report includes the results of all requested analyses.

July 21, 2021: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2134141-01 through -04: Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

Perfluorinated Alkyl Acids by Isotope Dilution

L2134141-05: The MeOH fraction of the extraction is reported for Perfluorooctanesulfonamide (FOSA) due to better extraction efficiency of the M8FOSA Surrogate (Extracted Internal Standard).

WG1517640-1 and WG1517640-2: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

Cyanide, Total

The WG1520881-2/-3 LCS/LCSD recoveries for cyanide, total (71%/61%), associated with L2134141-05, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 07/26/21

ORGANICS

VOLATILES

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-01
Client ID: SP-1
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:00
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/04/21 14:27
Analyst: MV
Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Benzene	ND		ug/kg	0.59	0.20	1
Toluene	0.80	J	ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
Acetone	ND		ug/kg	12	5.7	1
2-Butanone	ND		ug/kg	12	2.6	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-01 Date Collected: 06/23/21 14:00

Client ID: SP-1 Date Received: 06/23/21

Sample Location: FREDONIA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.39	1
1,4-Dioxane	ND		ug/kg	94	42.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	119		70-130

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Lab Number: L2134141
Project Number: U37.002.002
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-02
Client ID: SP-2
Sample Location: FREDONIA, NY
Date Collected: 06/23/21 14:10
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/04/21 14:52
Analyst: MV
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Benzene	ND		ug/kg	0.59	0.20	1
Toluene	0.66	J	ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Acetone	ND		ug/kg	12	5.6	1
2-Butanone	ND		ug/kg	12	2.6	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-02 Date Collected: 06/23/21 14:10

Client ID: SP-2 Date Received: 06/23/21

Sample Location: FREDONIA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.39	1
1,4-Dioxane	ND		ug/kg	94	41.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	119		70-130

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-03
Client ID: SP-3
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:20
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/04/21 15:18
Analyst: MV
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Benzene	ND		ug/kg	0.59	0.19	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.24	1
p/m-Xylene	ND		ug/kg	2.3	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Acetone	ND		ug/kg	12	5.6	1
2-Butanone	ND		ug/kg	12	2.6	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-03 Date Collected: 06/23/21 14:20

Client ID: SP-3 Date Received: 06/23/21

Sample Location: FREDONIA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
1,4-Dioxane	ND		ug/kg	94	41.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	118		70-130

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-04
Client ID: SP-4
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/04/21 15:44
Analyst: MV
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Benzene	ND		ug/kg	0.53	0.17	1
Toluene	ND		ug/kg	1.0	0.57	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	ND		ug/kg	0.53	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.59	1
o-Xylene	ND		ug/kg	1.0	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Acetone	ND		ug/kg	10	5.1	1
2-Butanone	ND		ug/kg	10	2.3	1
n-Butylbenzene	ND		ug/kg	1.0	0.18	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
n-Propylbenzene	ND		ug/kg	1.0	0.18	1

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-04 Date Collected: 06/23/21 14:30

Client ID: SP-4 Date Received: 06/23/21

Sample Location: FREDONIA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	84	37.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	128		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	119		70-130

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/04/21 11:21
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1520564-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Vinyl chloride	ND		ug/kg	1.0	0.34
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Acetone	ND		ug/kg	10	4.8
2-Butanone	ND		ug/kg	10	2.2
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/04/21 11:21
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1520564-5					
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	113		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1520564-3 WG1520564-4								
Methylene chloride	90		89		70-130	1		30
1,1-Dichloroethane	98		100		70-130	2		30
Chloroform	112		113		70-130	1		30
Carbon tetrachloride	128		129		70-130	1		30
Tetrachloroethene	95		96		70-130	1		30
Chlorobenzene	95		96		70-130	1		30
1,2-Dichloroethane	118		116		70-130	2		30
1,1,1-Trichloroethane	126		126		70-130	0		30
Benzene	97		98		70-130	1		30
Toluene	88		89		70-130	1		30
Ethylbenzene	94		94		70-130	0		30
Vinyl chloride	106		107		67-130	1		30
1,1-Dichloroethene	106		107		65-135	1		30
trans-1,2-Dichloroethene	104		104		70-130	0		30
Trichloroethene	111		112		70-130	1		30
1,2-Dichlorobenzene	92		93		70-130	1		30
1,3-Dichlorobenzene	93		95		70-130	2		30
1,4-Dichlorobenzene	91		91		70-130	0		30
Methyl tert butyl ether	99		100		66-130	1		30
p/m-Xylene	94		95		70-130	1		30
o-Xylene	95		97		70-130	2		30
cis-1,2-Dichloroethene	105		108		70-130	3		30
Acetone	101		99		54-140	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1520564-3 WG1520564-4								
2-Butanone	92		89		70-130	3		30
n-Butylbenzene	104		106		70-130	2		30
sec-Butylbenzene	104		106		70-130	2		30
tert-Butylbenzene	109		111		70-130	2		30
n-Propylbenzene	101		102		70-130	1		30
1,3,5-Trimethylbenzene	108		109		70-130	1		30
1,2,4-Trimethylbenzene	110		110		70-130	0		30
1,4-Dioxane	86		85		65-136	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	120		117		70-130
Toluene-d8	93		94		70-130
4-Bromofluorobenzene	110		109		70-130
Dibromofluoromethane	115		114		70-130

SEMIVOLATILES

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Lab Number: L2134141
Project Number: U37.002.002
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05
Client ID: SP-5
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/08/21 00:27
Analyst: ALS
Percent Solids: 74%

Extraction Method: EPA 3546
Extraction Date: 07/06/21 12:38

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	180	23.	1
Hexachlorobenzene	ND		ug/kg	130	25.	1
Fluoranthene	140		ug/kg	130	26.	1
Naphthalene	ND		ug/kg	220	27.	1
Benzo(a)anthracene	59	J	ug/kg	130	25.	1
Benzo(a)pyrene	58	J	ug/kg	180	54.	1
Benzo(b)fluoranthene	73	J	ug/kg	130	38.	1
Benzo(k)fluoranthene	ND		ug/kg	130	36.	1
Chrysene	64	J	ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	34.	1
Anthracene	ND		ug/kg	130	44.	1
Benzo(ghi)perylene	37	J	ug/kg	180	26.	1
Fluorene	ND		ug/kg	220	22.	1
Phenanthrene	94	J	ug/kg	130	27.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	44	J	ug/kg	180	31.	1
Pyrene	120	J	ug/kg	130	22.	1
Dibenzofuran	ND		ug/kg	220	21.	1
Pentachlorophenol	ND		ug/kg	180	49.	1
Phenol	ND		ug/kg	220	34.	1
2-Methylphenol	ND		ug/kg	220	34.	1
3-Methylphenol/4-Methylphenol	99	J	ug/kg	320	35.	1
1,4-Dioxane	ND		ug/kg	33	10.	1

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05 Date Collected: 06/23/21 14:30

Client ID: SP-5 Date Received: 06/23/21

Sample Location: FREDONIA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	76		10-136
4-Terphenyl-d14	68		18-120

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05
Client ID: SP-5
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 06/29/21 21:39
Analyst: SG
Percent Solids: 74%

Extraction Method: ALPHA 23528
Extraction Date: 06/28/21 10:02

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.133	J	ng/g	0.639	0.029	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.639	0.059	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.319	0.050	1
Perfluorohexanoic Acid (PFHxA)	0.099	J	ng/g	0.639	0.067	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.319	0.058	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.319	0.077	1
Perfluorooctanoic Acid (PFOA)	0.184	J	ng/g	0.319	0.054	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.639	0.229	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.639	0.174	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.319	0.096	1
Perfluorooctanesulfonic Acid (PFOS)	0.238	J	ng/g	0.319	0.166	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.319	0.086	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.639	0.367	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.639	0.257	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.639	0.060	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.639	0.195	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.639	0.108	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.639	0.089	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.639	0.261	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.639	0.069	1
PFOA/PFOS, Total	0.422	J	ng/g	0.319	0.054	1

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05 Date Collected: 06/23/21 14:30

Client ID: SP-5 Date Received: 06/23/21

Sample Location: FREDONIA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	91		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	97		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	83		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	102		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	100		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	89		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	44		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	100		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	51		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	96		24-159

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Lab Number: L2134141
Project Number: U37.002.002
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05
Client ID: SP-5
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 06/30/21 15:01
Analyst: RS
Percent Solids: 74%

Extraction Method: ALPHA 23528
Extraction Date: 06/28/21 10:02

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.639	0.125	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	100		10-117

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 06/29/21 20:33
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 06/28/21 10:02

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 05 Batch: WG1517640-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.250	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.250	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.250	0.061
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.250	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.250	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.250	0.130
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.250	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.500	0.054
PFOA/PFOS, Total	ND		ng/g	0.250	0.042

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 06/29/21 20:33
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 06/28/21 10:02

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 05 Batch: WG1517640-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	104		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	114		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	84		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	110		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	114		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	104		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	83		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	108		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	22		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	89		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	108		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	108		24-159

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 06/30/21 14:25
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 06/28/21 10:02

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 05 Batch: WG1517640-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**140**	Q	10-117

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/07/21 19:21
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 07/06/21 12:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1520773-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	97	18.
Fluoranthene	ND		ug/kg	97	18.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.
Dibenzofuran	ND		ug/kg	160	15.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	24.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	25.
1,4-Dioxane	ND		ug/kg	24	7.4

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/07/21 19:21
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 07/06/21 12:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1520773-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	84		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	79		10-136
4-Terphenyl-d14	88		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05 Batch: WG1517640-2								
Perfluorobutanoic Acid (PFBA)	96		-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	96		-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	95		-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	95		-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	96		-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	94		-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	96		-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	103		-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	99		-		70-132	-		30
Perfluorononanoic Acid (PFNA)	88		-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	106		-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	94		-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	110		-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	98		-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	92		-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	97		-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	94		-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	97		-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	97		-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	118		-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	95		-		69-133	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05 Batch: WG1517640-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	106				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	109				58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102				74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	114				78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	105				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91				20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	109				72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107				79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	102				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87				19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	89				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	106				61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	52				10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	86				34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	106				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	111				24-159

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05 Batch: WG1517640-2								
Perfluorooctanesulfonamide (FOSA)	92		-		67-137	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**137**	Q			10-117

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1520773-2 WG1520773-3								
Acenaphthene	67		66		31-137	2		50
Hexachlorobenzene	65		66		40-140	2		50
Fluoranthene	69		72		40-140	4		50
Naphthalene	63		64		40-140	2		50
Benzo(a)anthracene	70		74		40-140	6		50
Benzo(a)pyrene	76		81		40-140	6		50
Benzo(b)fluoranthene	73		79		40-140	8		50
Benzo(k)fluoranthene	73		76		40-140	4		50
Chrysene	68		74		40-140	8		50
Acenaphthylene	65		66		40-140	2		50
Anthracene	69		72		40-140	4		50
Benzo(ghi)perylene	68		72		40-140	6		50
Fluorene	67		68		40-140	1		50
Phenanthrene	66		69		40-140	4		50
Dibenzo(a,h)anthracene	72		76		40-140	5		50
Indeno(1,2,3-cd)pyrene	69		74		40-140	7		50
Pyrene	67		70		35-142	4		50
Dibenzofuran	64		66		40-140	3		50
Pentachlorophenol	66		70		17-109	6		50
Phenol	76		78		26-90	3		50
2-Methylphenol	71		73		30-130.	3		50
3-Methylphenol/4-Methylphenol	69		72		30-130	4		50
1,4-Dioxane	42		40		40-140	5		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1520773-2 WG1520773-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	64		65		25-120
Phenol-d6	72		73		10-120
Nitrobenzene-d5	72		74		23-120
2-Fluorobiphenyl	62		63		30-120
2,4,6-Tribromophenol	71		73		10-136
4-Terphenyl-d14	70		72		18-120

Matrix Spike Analysis

Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1517640-3 WG1517640-4 QC Sample: L2134452-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	0.260J	5.95	5.84	94		5.77	96		71-135	1		30
Perfluoropentanoic Acid (PFPeA)	0.180J	5.95	5.83	95		5.72	96		69-132	2		30
Perfluorobutanesulfonic Acid (PFBS)	0.065J	5.28	5.06	95		5.04	97		72-128	0		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.57	6.10	110		5.52	102		62-145	10		30
Perfluorohexanoic Acid (PFHxA)	0.280J	5.95	5.99	96		5.68	94		70-132	5		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	5.59	5.79	104		5.30	98		73-123	9		30
Perfluoroheptanoic Acid (PFHpA)	0.231J	5.95	5.79	93		5.75	96		71-131	1		30
Perfluorohexanesulfonic Acid (PFHxS)	0.390	5.44	5.51	94		5.21	91		67-130	6		30
Perfluorooctanoic Acid (PFOA)	0.991	5.95	6.58	94		6.50	96		69-133	1		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.66	5.32	94		5.38	98		64-140	1		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	5.66	5.54	98		5.26	96		70-132	5		30
Perfluorononanoic Acid (PFNA)	0.188J	5.95	5.54	90		5.36	90		72-129	3		30
Perfluorooctanesulfonic Acid (PFOS)	2.89	5.52	8.63	104		8.28	101		68-136	4		30
Perfluorodecanoic Acid (PFDA)	0.395	5.95	6.00	94		5.47	88		69-133	9		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.71	6.57	115		6.32	114		65-137	4		30
Perfluorononanesulfonic Acid (PFNS)	ND	5.72	5.78	101		5.51	99		69-125	5		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	5.95	5.66	95		5.70	99		63-144	1		30
Perfluoroundecanoic Acid (PFUnA)	0.093J	5.95	5.62	93		5.24	89		64-136	7		30
Perfluorodecanesulfonic Acid (PFDS)	ND	5.74	5.60	98		5.42	98		59-134	3		30
Perfluorooctanesulfonamide (FOSA)	ND	5.95	5.86F	99		5.56F	96		67-137	5		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	5.95	5.50	92		5.46	95		61-139	1		30
Perfluorododecanoic Acid (PFDoA)	0.116J	5.95	5.93	98		5.49	93		69-135	8		30

Matrix Spike Analysis

Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1517640-3 WG1517640-4 QC Sample: L2134452-01 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTrDA)	ND	5.95	6.84	115		6.52	113		66-139	5		30
Perfluorotetradecanoic Acid (PFTA)	ND	5.95	5.69	96		5.63	98		69-133	1		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	91		94		19-175
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	81		87		14-167
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	89		92		20-154
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	66		75		34-137
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		65		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	98		106		61-155
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		102		75-130
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	89		94		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	93		96		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		115		78-139
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	104		106		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	96		97		24-159
Perfluoro[13C4]Butanoic Acid (MPFBA)	97		99		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		102		58-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**6**	Q	**6**	Q	10-117
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	103		110		79-136
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		100		75-130
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	101		104		72-140
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		105		74-139

Matrix Spike Analysis

Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1517640-5 WG1517640-6 QC Sample: L2134452-04 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	ND	5.05	4.78	95		4.46	95		71-135	7		30
Perfluoropentanoic Acid (PFPeA)	ND	5.05	4.79	95		4.53	96		69-132	6		30
Perfluorobutanesulfonic Acid (PFBS)	ND	4.48	4.29	96		3.94	94		72-128	9		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	4.72	5.08	108		4.46	101		62-145	13		30
Perfluorohexanoic Acid (PFHxA)	ND	5.05	4.76	94		4.49	96		70-132	6		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	4.74	4.89	103		4.54	103		73-123	7		30
Perfluoroheptanoic Acid (PFHpA)	ND	5.05	4.74	94		4.43	94		71-131	7		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	4.61	4.37	95		4.03	94		67-130	8		30
Perfluorooctanoic Acid (PFOA)	ND	5.05	4.77	95		4.43	94		69-133	7		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	4.8	4.99	104		4.54	101		64-140	9		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	4.8	4.65	97		4.31	96		70-132	8		30
Perfluorononanoic Acid (PFNA)	ND	5.05	4.52	90		4.19	89		72-129	8		30
Perfluorooctanesulfonic Acid (PFOS)	ND	4.68	4.86	104		4.56	104		68-136	6		30
Perfluorodecanoic Acid (PFDA)	ND	5.05	4.41	87		4.24	90		69-133	4		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	4.84	5.44	112		4.60	102		65-137	17		30
Perfluorononanesulfonic Acid (PFNS)	ND	4.85	4.70	97		4.26	94		69-125	10		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	5.05	4.65	92		4.62	98		63-144	1		30
Perfluoroundecanoic Acid (PFUnA)	ND	5.05	4.63	92		4.30	91		64-136	7		30
Perfluorodecanesulfonic Acid (PFDS)	ND	4.86	4.46	92		4.15	92		59-134	7		30
Perfluorooctanesulfonamide (FOSA)	ND	5.05	4.68	93		4.44	94		67-137	5		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	5.05	4.84	96		5.00	106		61-139	3		30
Perfluorododecanoic Acid (PFDoA)	ND	5.05	4.86	96		4.46	95		69-135	9		30

Matrix Spike Analysis

Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1517640-5 WG1517640-6 QC Sample: L2134452-04 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTrDA)	ND	5.05	5.72	113		5.46	116		66-139	5		30
Perfluorotetradecanoic Acid (PFTA)	ND	5.05	5.02	100		4.80	102		69-133	4		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	82		84		19-175
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	86		85		14-167
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	83		84		20-154
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		57		34-137
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	59		59		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	91		89		61-155
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		91		75-130
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		87		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		89		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		101		78-139
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	95		94		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	66		75		24-159
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		92		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	101		94		58-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	48		72		10-117
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100		96		79-136
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98		92		75-130
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		93		72-140
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		96		74-139

PCBS

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Lab Number: L2134141
Project Number: U37.002.002
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05 D
Client ID: SP-5
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/07/21 14:31
Analyst: KB
Percent Solids: 74%

Extraction Method: EPA 3546
Extraction Date: 07/06/21 23:55
Cleanup Method: EPA 3665A
Cleanup Date: 07/07/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/07/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	220	19.5	5	A
Aroclor 1221	ND		ug/kg	220	22.0	5	A
Aroclor 1232	ND		ug/kg	220	46.6	5	A
Aroclor 1242	ND		ug/kg	220	29.6	5	A
Aroclor 1248	991		ug/kg	220	33.0	5	A
Aroclor 1254	ND		ug/kg	220	24.0	5	A
Aroclor 1260	ND		ug/kg	220	40.6	5	A
Aroclor 1262	ND		ug/kg	220	27.9	5	A
Aroclor 1268	ND		ug/kg	220	22.8	5	A
PCBs, Total	991		ug/kg	220	19.5	5	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 07/07/21 11:03
Analyst: KB

Extraction Method: EPA 3546
Extraction Date: 07/06/21 23:55
Cleanup Method: EPA 3665A
Cleanup Date: 07/07/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/07/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 05 Batch: WG1521007-1						
Aroclor 1016	ND		ug/kg	33.3	2.96	A
Aroclor 1221	ND		ug/kg	33.3	3.34	A
Aroclor 1232	ND		ug/kg	33.3	7.06	A
Aroclor 1242	ND		ug/kg	33.3	4.49	A
Aroclor 1248	ND		ug/kg	33.3	4.99	A
Aroclor 1254	ND		ug/kg	33.3	3.64	A
Aroclor 1260	ND		ug/kg	33.3	6.15	A
Aroclor 1262	ND		ug/kg	33.3	4.23	A
Aroclor 1268	ND		ug/kg	33.3	3.45	A
PCBs, Total	ND		ug/kg	33.3	2.96	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	72		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 05 Batch: WG1521007-2 WG1521007-3									
Aroclor 1016	93		98		40-140	5		50	A
Aroclor 1260	95		102		40-140	7		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		84		30-150	A
Decachlorobiphenyl	85		92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		80		30-150	B
Decachlorobiphenyl	71		77		30-150	B

PESTICIDES

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05
Client ID: SP-5
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/07/21 13:05
Analyst: KB
Percent Solids: 74%

Extraction Method: EPA 3546
Extraction Date: 07/06/21 11:15
Cleanup Method: EPA 3620B
Cleanup Date: 07/06/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.09	0.410	1	A
Lindane	ND		ug/kg	0.873	0.390	1	A
Alpha-BHC	ND		ug/kg	0.873	0.248	1	A
Beta-BHC	ND		ug/kg	2.09	0.794	1	A
Heptachlor	ND		ug/kg	1.05	0.470	1	A
Aldrin	ND		ug/kg	2.09	0.738	1	A
Endrin	ND		ug/kg	0.873	0.358	1	A
Dieldrin	ND		ug/kg	1.31	0.655	1	A
4,4'-DDE	20.3		ug/kg	2.09	0.484	1	B
4,4'-DDD	4.54		ug/kg	2.09	0.747	1	A
4,4'-DDT	9.88		ug/kg	3.93	1.68	1	B
Endosulfan I	ND		ug/kg	2.09	0.495	1	A
Endosulfan II	ND		ug/kg	2.09	0.700	1	A
Endosulfan sulfate	ND		ug/kg	0.873	0.415	1	A
cis-Chlordane	ND		ug/kg	2.62	0.730	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	72		30-150	B

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Lab Number: L2134141
Project Number: U37.002.002
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05
Client ID: SP-5
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/02/21 14:49
Analyst: AR
Percent Solids: 74%
Methylation Date: 07/01/21 17:58

Extraction Method: EPA 8151A
Extraction Date: 06/29/21 15:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	221	5.87	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	82		30-150	A
DCAA	83		30-150	B

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 07/02/21 10:17
Analyst: AR

Extraction Method: EPA 8151A
Extraction Date: 06/29/21 15:18

Methylation Date: 07/01/21 17:58

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 05 Batch: WG1518407-1						
2,4,5-TP (Silvex)	ND		ug/kg	162	4.30	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	70		30-150	A
DCAA	62		30-150	B

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/07/21 12:31
Analyst: KB

Extraction Method: EPA 3546
Extraction Date: 07/06/21 11:15
Cleanup Method: EPA 3620B
Cleanup Date: 07/06/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 05 Batch: WG1520725-1						
Delta-BHC	ND		ug/kg	1.60	0.313	A
Lindane	ND		ug/kg	0.666	0.298	A
Alpha-BHC	ND		ug/kg	0.666	0.189	A
Beta-BHC	ND		ug/kg	1.60	0.606	A
Heptachlor	ND		ug/kg	0.799	0.358	A
Aldrin	ND		ug/kg	1.60	0.562	A
Endrin	ND		ug/kg	0.666	0.273	A
Dieldrin	ND		ug/kg	0.999	0.499	A
4,4'-DDE	ND		ug/kg	1.60	0.370	A
4,4'-DDD	ND		ug/kg	1.60	0.570	A
4,4'-DDT	ND		ug/kg	3.00	1.28	A
Endosulfan I	ND		ug/kg	1.60	0.377	A
Endosulfan II	ND		ug/kg	1.60	0.534	A
Endosulfan sulfate	ND		ug/kg	0.666	0.317	A
cis-Chlordane	ND		ug/kg	2.00	0.556	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	49		30-150	B
Decachlorobiphenyl	51		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 05 Batch: WG1518407-2 WG1518407-3									
2,4,5-TP (Silvex)	80		80		30-150	0		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	78		77		30-150	A
DCAA	80		95		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 05 Batch: WG1520725-2 WG1520725-3									
Delta-BHC	76		58		30-150	27		30	A
Lindane	77		58		30-150	28		30	A
Alpha-BHC	71		54		30-150	27		30	A
Beta-BHC	73		56		30-150	26		30	A
Heptachlor	78		56		30-150	**33**	Q	30	A
Aldrin	70		52		30-150	30		30	A
Endrin	76		57		30-150	29		30	A
Dieldrin	76		56		30-150	30		30	A
4,4'-DDE	70		52		30-150	30		30	A
4,4'-DDD	81		59		30-150	**31**	Q	30	A
4,4'-DDT	76		54		30-150	**34**	Q	30	A
Endosulfan I	67		49		30-150	**31**	Q	30	A
Endosulfan II	75		54		30-150	**33**	Q	30	A
Endosulfan sulfate	55		38		30-150	**37**	Q	30	A
cis-Chlordane	57		42		30-150	30		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		55		30-150	A
Decachlorobiphenyl	72		53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		49		30-150	B
Decachlorobiphenyl	69		51		30-150	B

METALS

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05
Client ID: SP-5
Sample Location: FREDONIA, NY
Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	11.9		mg/kg	0.519	0.108	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Barium, Total	75.2		mg/kg	0.519	0.090	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Beryllium, Total	0.509		mg/kg	0.260	0.017	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Cadmium, Total	0.498	J	mg/kg	0.519	0.051	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Chromium, Total	16.8		mg/kg	0.519	0.050	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Copper, Total	21.3		mg/kg	0.519	0.134	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Lead, Total	26.0		mg/kg	2.60	0.139	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Manganese, Total	413		mg/kg	0.519	0.083	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Mercury, Total	0.077	J	mg/kg	0.086	0.056	1	07/07/21 09:50	07/08/21 13:04	EPA 7471B	1,7471B	OU
Nickel, Total	17.9		mg/kg	1.30	0.126	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Selenium, Total	0.374	J	mg/kg	1.04	0.134	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Silver, Total	ND		mg/kg	0.519	0.147	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
Zinc, Total	70.4		mg/kg	2.60	0.152	1	07/07/21 06:40	07/20/21 16:22	EPA 3050B	1,6010D	VL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	17		mg/kg	1.1	1.1	1		07/20/21 16:22	NA	107,-	

Project Name: ST. GEORGE STOCKPILE - GOWANDA **Lab Number:** L2134141

Project Number: U37.002.002 **Report Date:** 07/26/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05 Batch: WG1520774-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Barium, Total	ND		mg/kg	0.400	0.070	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Beryllium, Total	ND		mg/kg	0.200	0.013	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Cadmium, Total	ND		mg/kg	0.400	0.039	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Chromium, Total	ND		mg/kg	0.400	0.038	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Copper, Total	ND		mg/kg	0.400	0.103	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Lead, Total	ND		mg/kg	2.00	0.107	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Manganese, Total	0.076	J	mg/kg	0.400	0.064	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Nickel, Total	ND		mg/kg	1.00	0.097	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Selenium, Total	ND		mg/kg	0.800	0.103	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Silver, Total	ND		mg/kg	0.400	0.113	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD
Zinc, Total	ND		mg/kg	2.00	0.117	1	07/07/21 06:40	07/17/21 07:14	1,6010D	GD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05 Batch: WG1520775-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	07/07/21 09:50	07/07/21 12:09	1,7471B	OU

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG1520774-2 SRM Lot Number: D109-540								
Arsenic, Total	105		-		70-130	-		
Barium, Total	97		-		75-125	-		
Beryllium, Total	97		-		75-125	-		
Cadmium, Total	95		-		75-125	-		
Chromium, Total	99		-		70-130	-		
Copper, Total	104		-		75-125	-		
Lead, Total	100		-		72-128	-		
Manganese, Total	93		-		74-126	-		
Nickel, Total	96		-		70-130	-		
Selenium, Total	104		-		68-132	-		
Silver, Total	107		-		68-131	-		
Zinc, Total	100		-		70-130	-		
Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG1520775-2 SRM Lot Number: D109-540								
Mercury, Total	102		-		60-140	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1520774-3 QC Sample: L2133803-04 Client ID: MS Sample												
Arsenic, Total	2.19	11.3	9.80	**67**	Q	-	-		75-125	-		20
Barium, Total	31.3	189	162	**69**	Q	-	-		75-125	-		20
Beryllium, Total	0.366	4.72	3.64	**69**	Q	-	-		75-125	-		20
Cadmium, Total	0.346J	5	3.84	77		-	-		75-125	-		20
Chromium, Total	23.7	18.9	35.6	**63**	Q	-	-		75-125	-		20
Copper, Total	10.2	23.6	27.9	75		-	-		75-125	-		20
Lead, Total	8.38	50	39.6	**62**	Q	-	-		75-125	-		20
Manganese, Total	668	47.2	796	**271**	Q	-	-		75-125	-		20
Nickel, Total	8.00	47.2	38.2	**64**	Q	-	-		75-125	-		20
Selenium, Total	0.712J	11.3	8.08	**71**	Q	-	-		75-125	-		20
Silver, Total	0.200J	28.3	20.4	**72**	Q	-	-		75-125	-		20
Zinc, Total	27.7	47.2	62.8	**74**	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1520775-3 QC Sample: L2133902-06 Client ID: MS Sample												
Mercury, Total	0.294	0.14	0.514	**158**	Q	-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1520774-4 QC Sample: L2133803-04 Client ID: DUP Sample						
Manganese, Total	668	724	mg/kg	8		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1520775-4 QC Sample: L2133902-06 Client ID: DUP Sample						
Mercury, Total	0.294	0.738	mg/kg	**86**	Q	20

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG1520774-6 QC Sample: L2133803-04 Client ID: DUP Sample						
Manganese, Total	668	880	mg/kg	**32**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-01
Client ID: SP-1
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:00
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.6		%	0.100	NA	1	-	06/25/21 10:49	121,2540G	RI

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-02
Client ID: SP-2
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:10
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.7		%	0.100	NA	1	-	06/25/21 10:49	121,2540G	RI

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-03
Client ID: SP-3
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:20
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.9		%	0.100	NA	1	-	06/25/21 10:49	121,2540G	RI

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-04
Client ID: SP-4
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.4		%	0.100	NA	1	-	06/25/21 10:49	121,2540G	RI

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

SAMPLE RESULTS

Lab ID: L2134141-05
Client ID: SP-5
Sample Location: FREDONIA, NY

Date Collected: 06/23/21 14:30
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.2		%	0.100	NA	1	-	06/25/21 10:49	121,2540G	RI
Cyanide, Total	0.41	J	mg/kg	1.2	0.26	1	07/06/21 19:10	07/07/21 12:18	1,9010C/9012B	CR
Chromium, Hexavalent	ND		mg/kg	1.08	0.216	1	06/29/21 14:40	06/30/21 18:40	1,7196A	PB

Project Name: ST. GEORGE STOCKPILE - GOWAND
Project Number: U37.002.002
Lab Number: L2134141
Report Date: 07/26/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 05 Batch: WG1518248-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	06/29/21 14:40	06/30/21 18:37	1,7196A	PB
General Chemistry - Westborough Lab for sample(s): 05 Batch: WG1520881-1										
Cyanide, Total	ND		mg/kg	0.88	0.19	1	07/06/21 19:10	07/07/21 12:14	1,9010C/9012B	CR

Lab Control Sample Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05 Batch: WG1518248-2								
Chromium, Hexavalent	80		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 05 Batch: WG1520881-2 WG1520881-3								
Cyanide, Total	**71**	Q	**61**	Q	80-120	7		35

Matrix Spike Analysis
Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1518248-4 QC Sample: L2134141-05 Client ID: SP-5												
Chromium, Hexavalent	ND	921	716	78		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1520881-4 WG1520881-5 QC Sample: L2135643-02 Client ID: MS Sample												
Cyanide, Total	ND	10	10	99		9.9	98		75-125	1		35

Lab Duplicate Analysis

Batch Quality Control

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1516928-1 QC Sample: L2134249-01 Client ID: DUP Sample						
Solids, Total	90.8	90.6	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1518248-6 QC Sample: L2134141-05 Client ID: SP-5						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2134141-01A	Vial Large Septa unpreserved (4oz)	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-01B	Plastic 2oz unpreserved for TS	A	NA		3.0	Y	Absent		TS(7)
L2134141-01X	Vial MeOH preserved split	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-01Y	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-01Z	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-02A	Vial Large Septa unpreserved (4oz)	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-02B	Plastic 2oz unpreserved for TS	A	NA		3.0	Y	Absent		TS(7)
L2134141-02X	Vial MeOH preserved split	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-02Y	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-02Z	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-03A	Vial Large Septa unpreserved (4oz)	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-03B	Plastic 2oz unpreserved for TS	A	NA		3.0	Y	Absent		TS(7)
L2134141-03X	Vial MeOH preserved split	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-03Y	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-03Z	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-04A	Vial Large Septa unpreserved (4oz)	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-04B	Plastic 2oz unpreserved for TS	A	NA		3.0	Y	Absent		TS(7)
L2134141-04X	Vial MeOH preserved split	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2134141-04Y	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-04Z	Vial Water preserved split	A	NA		3.0	Y	Absent	**29-JUN-21 14:41**	NYTCL-8260-R2(14)
L2134141-05A	Plastic 2oz unpreserved for TS	A	NA		3.0	Y	Absent		TS(7)
L2134141-05B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.0	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),CU-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2134141-05C	Glass 120ml/4oz unpreserved	A	NA		3.0	Y	Absent		TCN-9010(14),NYTCL-8270(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(365),HEXCR-7196(30)
L2134141-05D	Glass 500ml/16oz unpreserved	A	NA		3.0	Y	Absent		TCN-9010(14),NYTCL-8270(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(365),HEXCR-7196(30)
L2134141-05E	Plastic 8oz unpreserved	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: ST. GEORGE STOCKPILE - GOWANDA
Project Number: U37.002.002

Lab Number: L2134141
Report Date: 07/26/21

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	ST. GEORGE STOCKPILE - GOWANDA	**Lab Number:**	L2134141
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GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ST. GEORGE STOCKPILE - GOWANDA	**Lab Number:**	L2134141
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Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ST. GEORGE STOCKPILE - GOWANDA	**Lab Number:**	L2134141
Project Number:	U37.002.002	**Report Date:**	07/26/21

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

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Date Rec'd in Lab: 6/24/21

ALPHA Job #: L2134141

Client Information
Client: C+S Companies
Address: 141 Elm St, Suite 100
Buffalo, NY 14203
Phone: (716) 847-1630
Fax:
Email: jaltwinzig@cscos.com

Project Information
Project Name: St. George Stockpile - Gowanda Project
Project Location: Fredonia, NY
Project # U37.002.002
(Use Project name as Project #) [X]
Project Manager: Jesse Alt-Winzig
ALPHAQuote #:

Turn-Around Time
Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

Deliverables
[ ] ASP-A [X] ASP-B
[X] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement
[ ] NY TOGS [X] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information
[X] Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	NYTCL-8260	HEXCR	HERB-APA, NYTCL-8081, TCN, NYTCL-8082, NYTCL-8270	Total Hg / Metals	A2-NY-537-Isotope	TS			Sample Specific Comments	Total Bottle
34141 01	SP-1	06/23/2021	1400	S	JAW	X					X				2
02	SP-2		1410	S	JAW	X					X				2
03	SP-3		1420	S	JAW	X					X				2
04	SP-4		1430	S	JAW	X					X				2
05	SP-5 ~~(composite)~~	↓	1440	S	JAW		X	X	X	X	X			Composite Sample	

Container Type: V G G G P P
Preservative: A A A A A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

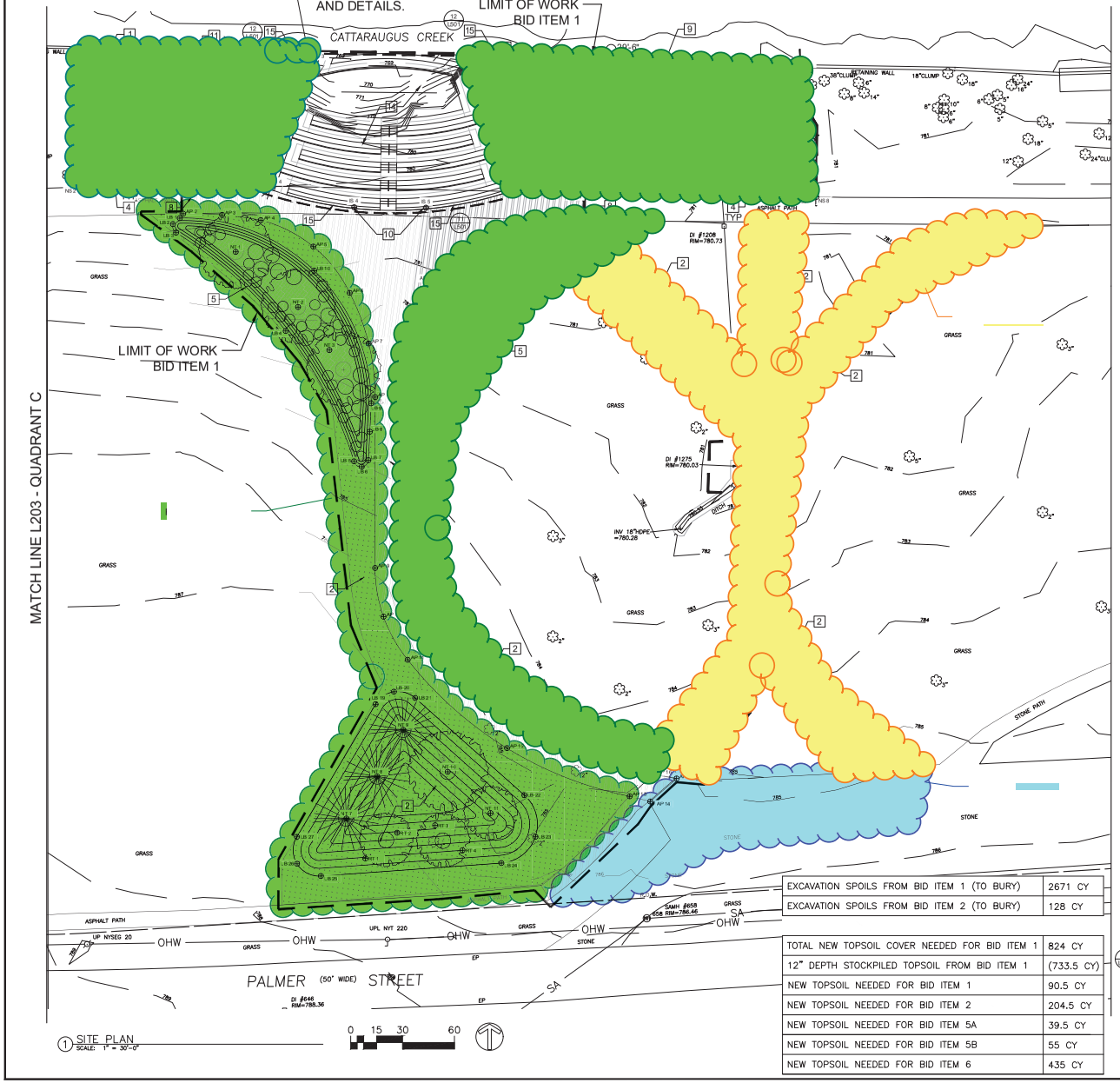
Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Jesse Alt-Winzig (C+S)	6/23/2021 1545	AAL	6-23-21 15:45
	6-23-21 15:45		6/24/21 01:05

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX E
Soil Placement Drawings



1 SITE PLAN
SCALE: 1" = 30'-0"

0 15 30 60

EXCAVATION SPOILS FROM BID ITEM 1 (TO BURY)	2671 CY
EXCAVATION SPOILS FROM BID ITEM 2 (TO BURY)	128 CY

TOTAL NEW TOPSOIL COVER NEEDED FOR BID ITEM 1	824 CY
12" DEPTH STOCKPILED TOPSOIL FROM BID ITEM 1	(733.5 CY)
NEW TOPSOIL NEEDED FOR BID ITEM 1	90.5 CY
NEW TOPSOIL NEEDED FOR BID ITEM 2	204.5 CY
NEW TOPSOIL NEEDED FOR BID ITEM 5A	39.5 CY
NEW TOPSOIL NEEDED FOR BID ITEM 5B	55 CY
NEW TOPSOIL NEEDED FOR BID ITEM 6	435 CY

GENERAL NOTES:

1. EXISTING CONDITIONS INFORMATION TAKEN FROM THE SURVEY PREPARED BY: FRANDINA ENGINEERING AND SURVEY, DATED: JANUARY 31, 2019
2. UNDERGROUND UTILITIES ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL STAKE OUT ALL WORK IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
4. ALL MEASUREMENTS ARE TAKEN FROM THE FACE OF CURB AND/OR WALL UNLESS OTHERWISE NOTED.
5. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
6. THIS PROJECT SITE IS GOVERNED BY A SITE MANAGEMENT PLAN WHICH HAS BEEN INCLUDED IN THE PROJECT MANUAL AS 'APPENDIX A'.
7. THIS PROJECT HAS A NYS DEC PERMIT WITH RESTRICTIONS FOR WORKING IN THE WATERS OF CATTARAUGUS CREEK FROM SEPTEMBER 15TH THROUGH MAY 31ST.

LAYOUT AND MATERIALS NOTES:

1. PLACE NEW TOPSOIL AND NATIVE SEED MIX
2. PLACE STOCKPILED TOPSOIL AND LAWN SEED
3. PLACE SUITABLE BACKFILL AND COMPACT, SEE CIVIL PLANS
4. EXISTING TREES WILL REMAIN AT EXISTING ELEVATION, SOIL COVER WILL FEATHER DOWN AT AREA APPROX. TO CIRCLE ENCLOSURE.
5. NEW PLANTING AREAS WITH MIXED SOIL, SEE DETAIL
6. NOT USED
7. 12" MULCH PATH, USE VEGETATION CHIPPING/SHREDDING FROM SITE CLEARING ACTIVITY, FURNISH ADDITIONAL MULCH MATERIAL AS REQUIRED
8. NEW ASPHALT PAVEMENT
9. NOT USED
10. NOT USED
11. NEW BIRD BLIND, SEE DETAIL
12. RECLAIMED LOG SEATING, SEE DETAIL - TO BE FIELD LOCATED
13. CONCRETE RETAINING WALL AND SHOTCRETE STAIR, SEE CIVIL SHEETS
14. CONCRETE RETAINING WALL AND SHOTCRETE AMPHITHEATER, SEE CIVIL SHEETS
15. FORM LINER LETTERING IN CONCRETE WALL
16. CONCRETE SMALL CRAFT LAUNCH, SEE CIVIL SHEETS

LAYOUT AND MATERIALS LEGEND:

- SAWCUT
- RAIL
- INTERPRETIVE SIGN
- BIRD BLIND
- NEW DECIDUOUS TREE
- EXISTING DECIDUOUS TREE
- NEW TOPSOIL AND NATIVE SEED MIX - ITEM 1
- NEW TOPSOIL AND NATIVE SEED MIX - ITEM 6
- MULCH PATH - ITEM 1
- MULCH PATH - ITEM 6
- RECLAIMED SOIL AND LAWN SEED
- NEW PLANTER BEDS - AS DETAILED. TREES, SHRUBS, AND MULCH - ITEM 1
- ASPHALT PAVEMENT - ITEM 1

GOWANDA CREEKSIDE IMPROVEMENTS

Gowanda, NY
ZOAR VALLEY
GATEWAY PARK

EMPIRE STATE DEVELOPMENT
PROJECT AC449

JOY KUBLER
LANDSCAPE ARCHITECT PC
65 Zimmerman Street
N Tonawanda, NY 14120
tel 716.695.1987
fax 716.695.1988
JKLAstudio.com

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BID DOCUMENTS

NO.	REVISIONS	DATE
1	RECONCILED	07/06/20

DWG. TITLE

LAYOUT AND MATERIALS PLAN QUADRANT D

DATE: APRIL 2020
SCALE: AS NOTED
DWN. KAK CHK. JMK
PROJ. No. 18019
DWG. No.

L204

1 SITE PLAN
SCALE: 1" = 20'-0"

0 10 20 40

GENERAL NOTES:

1. EXISTING CONDITIONS INFORMATION TAKEN FROM THE SURVEY PREPARED BY: FRANDINA ENGINEERING AND SURVEY, DATED: JANUARY 31, 2019
2. UNDERGROUND UTILITIES ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL STAKE OUT ALL WORK IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
4. ALL MEASUREMENTS ARE TAKEN FROM THE FACE OF CURB AND/OR WALL UNLESS OTHERWISE NOTED.
5. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
6. THIS PROJECT SITE IS GOVERNED BY A SITE MANAGEMENT PLAN WHICH HAS BEEN INCLUDED IN THE PROJECT MANUAL AS 'APPENDIX A'.
7. THIS PROJECT HAS A NYS DEC PERMIT WITH RESTRICTIONS FOR WORKING IN THE WATERS OF CATTARAUGUS CREEK FROM SEPTEMBER 15TH THROUGH MAY 31ST.

LAYOUT AND MATERIALS NOTES:

1. PLACE NEW TOPSOIL AND NATIVE SEED MIX
2. PLACE STOCKPILED TOPSOIL AND LAWN SEED
3. PLACE SUITABLE BACKFILL AND COMPACT, SEE CIVIL PLANS
4. (7/L500) EXISTING TREES WILL REMAIN AT EXISTING ELEVATION, SOIL COVER WILL FEATHER DOWN AT AREA APPROX. TO CIRCLE ENCLOSURE.
5. (9/L501) NEW PLANTING AREAS WITH MIXED SOIL, SEE DETAIL
6. NOT USED
7. 12" MULCH PATH, USE VEGETATION CHIPPING/SHREDDING FROM SITE CLEARING ACTIVITY, FURNISH ADDITIONAL MULCH MATERIAL AS REQUIRED
8. (2/L504) NEW ASPHALT PAVEMENT
9. NOT USED
10. NOT USED
11. (6/L502) NEW BIRD BLIND, SEE DETAIL
12. (6/L504) RECLAIMED LOG SEATING, SEE DETAIL - TO BE FIELD LOCATED
13. CONCRETE RETAINING WALL AND SHOTCRETE STAIR, SEE CIVIL SHEETS
14. CONCRETE RETAINING WALL AND SHOTCRETE AMPHITHEATER, SEE CIVIL SHEETS
15. (11/L501) (12/L501) FORM LINER LETTERING IN CONCRETE WALL
16. CONCRETE SMALL CRAFT LAUNCH, SEE CIVIL SHEETS

LAYOUT AND MATERIALS LEGEND:

- SAWCUT
- RAIL
- INTERPRETIVE SIGN
- BIRD BLIND
- (10/L501) NEW DECIDUOUS TREE
- EXISTING DECIDUOUS TREE
- NEW TOPSOIL AND NATIVE SEED MIX - ITEM 1
- RECLAIMED SOIL AND LAWN SEED
- NEW PLANTER BEDS - AS DETAILED. TREES, SHRUBS, AND MULCH - ITEM 1
- MULCH PATH - ITEM 1
- ASPHALT PAVEMENT - ITEM 1
- NEW TOPSOIL AND NATIVE SEED MIX - ITEM 6
- MULCH PATH - ITEM 6

GOWANDA CREEKSIDE IMPROVEMENTS

Gowanda, NY
ZOAR VALLEY
GATEWAY PARK

EMPIRE STATE DEVELOPMENT
PROJECT AC449

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JKLAstudio.com

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BID DOCUMENTS

NO.	REVISIONS	DATE
1	RECONCILED	07/06/20

DWG. TITLE

LAYOUT AND MATERIALS PLAN QUADRANT F

DATE: APRIL 2020
SCALE: AS NOTED
DWN. KAK CHK. JMK
PROJ. No. 18019
DWG. No.

L206

APPENDIX F
O&M Cost Summary

PETER COOPER SITE
138 Palmer Street, Gowanda, NY 14070
Reimbursement Period: Jan 2021 - May 2021

General Fund Reimbursement

Electric - Leachate Pump Station

Electrical Service (NYSEG) 1003-3457-754

Payment Date	Service Dates	Amount
1/25/2021	12/9/20 - 1/7/21	$ 186.72
2/22/2021	1/8 - 2/5/21	$ 193.99
3/17/2021	2/6/21- 3/5/21	$ 202.78
4/12/2021	3/6/21 - 4/7/21	$ 184.35
5/13/2021	4/8/21 - 5/6/21	$ 176.22
5/31/2021	5/7/21- 6/4/21	$ 197.57
TOTALS		**$ 1,141.63**

Sewer Fund Charges

Sampling Labor *$34.48*

Labor as documented by Sewer Employees $22.41 Rate/hr plus 53.87% fringe. Mowing @ $50/hr

Month	Hrs	Amount
Jan-21	5	$ 172.40
Feb-21	4.5	$ 155.16
Mar-21	5.0	$ 172.40
Apr-21	5	$ 172.40
May-21	5.5	$ 189.64
TOTALS	**25**	**$ 862.00**

Special Project Fund Reimbursement

As itemized

As itemized: Site maintenance as required.

Service/Item	Amount
None this period	
TOTALS	**$ -**

General Fund Charges

Admin Monitor & Maint.

Village Admin processing of Reimbursment Requests @ $75/hour

Month	Hrs	Amount
Jan-21	0.5	$ 37.50
Feb-21	0.5	$ 37.50
Mar-21	0.5	$ 37.50
Apr-21	0.5	$ 37.50
May-21	0.5	$ 37.50
TOTALS	**2.5**	**$ 187.50**

Sewer Fund Charges

Peter Cooper Leachate Flow

Flow per month as documented by Sewer Flow Meter at Peter Cooper Site.

Month	Flow	Amount
Jan-21	73.54	$36.77
Feb-21	49.89	$24.95
Mar-21	48.72	$24.36
Apr-21	59.36	$29.68
May-21	52.97	$26.49
TOTALS	**284.48**	**$142.25**

Reimbursment Request Total

Electric	$ 1,141.63
Sampling Labor	$ 862.00
Itemized Expenses	$ -
Admin Support	$ 187.50
Leachate Flow	$ 142.25
TOTAL REIMB REQUEST	**$ 2,333.38**

PETER COOPER SITE
138 Palmer Street, Gowanda, NY 14070
Reimbursement Period: June 2021 - Sept 2021

General Fund Reimbursement

Electric - Leachate Pump Station

Electrical Service (NYSEG) 1003-3457-754

Payment Date	Service Dates	Amount
7/21/2021	6/5/21 - 7/6/21	$ 181.64
8/16/2021	7/7/21- 8/4/21	$ 179.88
9/13/2021	8/5/21- 9/7/21	$ 187.37
9/30/2021	9/8/21 - 10/4/21	$ 180.57
TOTALS		**$ 729.46**

Sewer Fund Charges

Sampling Labor *$35.84*

Labor as documented by Sewer Employees $23.29 Rate/hr plus 53.87% fringe. Mowing @ $50/hr

Month	Hrs	Amount
Jun-21	5	$ 179.20
Jul-21	5	$ 179.20
Aug-21	6.0	$ 215.04
Sep-21	5	$ 179.20
Mowing	4	$ 143.36
TOTALS	**25**	**$ 896.00**

Special Project Fund Reimbursement

As itemized

As itemized: Site maintenance as required.

Service/Item	Amount
Annual Report & Soil	$ 7,520.00
Management Report	
Peter Cooper Sampling	$ 4,500.00
Event	
Microbac Analysis	$ 481.75
TOTALS	**$ 12,501.75**

General Fund Charges

Admin Monitor & Maint.

Village Admin processing of Reimbursment Requests @ $75/hour

Month	Hrs	Amount
Jun-21	0.75	$ 37.50
Jul-21	0.75	$ 37.50
Aug-21	0.75	$ 37.50
Sep-21	0.75	$ 37.50
TOTALS	**3**	**$ 150.00**

Sewer Fund Charges

Peter Cooper Leachate Flow

Flow per month as documented by Sewer Flow Meter at Peter Cooper Site.

Month	Flow	Amount
Jun-21	50.91	$25.46
Jul-21	94.59	$47.30
Aug-21	116.25	$58.13
Sep-21	137.25	$68.63
TOTALS	**399**	**$199.52**

Reimbursment Request Total

Electric	$ 729.46
Sampling Labor	$ 896.00
Itemized Expenses	$ 12,501.75
Admin Support	$ 150.00
Leachate Flow	$ 199.52
TOTAL REIMB REQUEST	**$ 14,476.73**

Reimbursements

General Fund	*$ 879.46*
Special Projects	*$ 12,020.00*
Sewer Fund	*$ 1,577.27*
	$ 14,476.73

PETER COOPER SITE
138 Palmer Street, Gowanda, NY 14070
Reimbursement Period: Oct 2021 - Dec 2021

General Fund Reimbursement

Electric - Leachate Pump Station

Electrical Service (NYSEG) 1003-3457-754

Payment Date	Service Dates	Amount
11/16/2021	10/5/21- 11/5/21	$ 199.01
12/14/2021	11/6/21 - 12/7/21	$ 307.59

Sewer Fund Charges

Sampling Labor *$35.84*

Labor as documented by Sewer Employees $23.29 Rate/hr plus 53.87% fringe. Mowing @ $50/hr

Month	Hrs	Amount
Oct-21	11.5	$ 412.16
Nov-21	21.5	$ 770.56
Dec-21	37.25	$ 1,335.04

Nov/Dec pump repair/maintenance

Special Project Fund Reimbursement

As itemized

As itemized: Site maintenance as required.

Service/Item	Amount

General Fund Charges

Admin Monitor & Maint.

Village Admin processing of Reimbursment Requests @ $75/hour

Month	Hrs	Amount
Oct-21	0.75	$ 56.25
Nov-21	0.75	$ 56.25
Dec-21	0.75	$ 56.25

Sewer Fund Charges

Peter Cooper Leachate Flow

Flow per month as documented by Sewer Flow Meter at Peter Cooper Site.

Month	Flow	Amount
Oct-21	75.86	$37.93
Nov-21	85.99	$43.00
Dec-21	135.28	$67.64

TOTALS	**$**	**506.60**	**70.25**	**$**	**2,517.76**	**$**	**-**	**2.25**	**$**	**168.75**	**297.13**	**$148.57**

Reimbursment Request Total

Electric	$	506.60
Sampling Labor	$	2,517.76
Itemized Expenses	$	-
Admin Support	$	168.75
Leachate Flow	$	148.57
TOTAL REIMB REQUEST	**$**	**3,341.68**

Reimbursements

General Fund	*$*	*675.35*
Special Projects	*$*	*-*
Sewer Fund	*$*	*2,666.33*
	$	***3,341.68***

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listen
The power to
solve℠

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