GeoLogic NY, PC
P. O. Box 350 • 37 Copeland Ave. • Homer, NY 13077 • 607-749-5000

April 29, 2024

Mr. Stephen Catalfamo
NYSDEC – Region 7 Sub-Office
1679 NYS Route 11
Kirkwood, New York 13795

Reference: 2024 Periodic Review Report
TCMF Hillcrest Facility
4 Nowlan Road
Binghamton, New York
BCP Site No. C704045

Dear Mr. Catalfamo:

Introduction

This report provides the basis for review and certification of the institutional and engineering controls (ICs/ECs) implemented at Site No. C704045. The signed Institutional and Engineering Controls Certification Form is included in Appendix A.

The Site is currently owned by Binghamton Realty, Inc. and this Periodic Review Report (PRR) is prepared and submitted at the direction of Binghamton Realty, Inc., consistent with the Site's remedial program as approved by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). The reporting period for this PRR is April 20, 2023 to April 20, 2024.

A Brownfield Cleanup Agreement (BCA) between Binghamton Realty, Inc. and the NYSDEC was implemented on December 6, 2004 for the Triple Cities Metal Finishing Corporation (TCMF) Hillcrest Facility (Site). The Site is located at 4 Nowlan Road in the Town of Fenton, County of Broome and State of New York.

The Final Engineering Report (FER) was accepted and the Certificate of Completion (COC) was issued by the NYSDEC to Binghamton Realty, Inc. on December 20, 2016. The COC required the implementation of the NYSDEC-approved Site Management Plan (SMP). The original SMP was submitted to NYSDEC on November 2, 2016 and approved by the NYSDEC on November 3, 2016. The original SMP has been modified multiple times, see Site Management Plan Compliance below for details.

Site Overview

The Site consists of two contiguous parcels and encompasses approximately 0.95 acres. The Site is bordered on the south by Beckwith Avenue, on the east by the B. W. Elliot Manufacturing Company (NYSDEC Site No. 704015 - C.A.E. Electronics), on the west by two commercial properties and a residence and on the north by Nowlan Road. North of Nowlan Road are residences and a gas station. Further south, west and north are residential properties.

In response to sub-slab vapor samples collected at the Site that exceeded Matrix 1 Action Levels set in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, a sub-slab depressurization system (SSDS) was installed within the occupied spaces of the industrial building. The SSDS has been in operation since January 2006 and has been expanded twice, once in 2012 and once in 2014.

A Maintenance & Monitoring Plan for the SSDS was submitted to NYSDEC in May 2007. Annual Interim Maintenance & Monitoring Reports have been submitted to the NYSDEC since 2009. Beginning in 2018, the annual PRR replaced the Annual Interim Maintenance & Monitoring Report.

The contaminants of concern, identified at the Site, were cadmium, chromium, lead and nickel. The chlorinated volatile organic compounds detected in the soil vapor and groundwater at the Site appear to be associated with the adjacent C.A.E. Electronics facility. Remediation, including excavation of source areas and application of a soil stabilization amendment, was completed at the Site in 2015 and 2016.

Site Management Plan Compliance

The original SMP was submitted to NYSDEC on November 2, 2016 and approved by the NYSDEC on November 3, 2016. The Site can be used for commercial or industrial purposes. There is a prohibition on the use of groundwater at the Site, and any site activities must be in compliance with the SMP.

The Site currently has the following institutional controls and engineering controls:

- Ground Water Use Restrictions,
- Vapor Mitigation via the SSDS,
- Cover System (includes the Asphalt Pavement and the Site Building),
- Land Use Restrictions,
- Site Management Plan (includes a Soil Management Plan, O&M Plan and ICs/ECs Plan),
- Monitoring Plan.

The monitoring requirements for the Site are listed in Section 4 of the SMP (Monitoring and Sampling Plan) and originally included the following:

- Annual review of site cover,
- Annual review of the SSDS,
- Semi-annual groundwater monitoring of wells MW-3, MW-3HA, MW-4, MW-5R, MW-6, MW-7R, MW-8 and MW-9 for the analyses of volatile organic compounds (VOCs) on the Target Compound List (TCL) by EPA Method 8260 and for cadmium and chromium by EPA Methods 6010 and for hexavalent chromium by Method SM3500.

On May 15, 2017, GeoLogic submitted a request to modify the SMP by eliminating the requirement to analyze groundwater samples for VOCs on the TCL. The NYSDEC approved this modification on May 23, 2017. The SMP was revised to reflect this modification and was submitted to the NYSDEC on July 10, 2017. Future groundwater monitoring will include the collection of samples, on a semi-annual basis, to be analyzed for cadmium, chromium and hexavalent chromium.

On May 21, 2018, the NYSDEC approved GeoLogic's request to modify the SMP by eliminating monitoring wells MW-4, MW-5R, MW-6 and MW-7R from the groundwater sampling program. The SMP was revised to reflect this modification and Revision No. 2 to the SMP was submitted to the NYSDEC on June 12, 2018. Future groundwater monitoring events will include the collection of samples from MW-3, MW-3HA, MW-8 and MW-9 on a semi-annual basis. The groundwater samples will be analyzed for cadmium, chromium and hexavalent chromium.

On December 21, 2018, GeoLogic decommissioned two monitoring wells (MW-4 and MW-6) that were no longer needed for evaluating groundwater quality at the Site. The well decommissioning procedures were selected based upon the Site's SMP and the NYSDEC's CP-43: Groundwater Monitoring Well Decommissioning Policy, dated November 3, 2009.

During the May 2019 groundwater sampling event, GeoLogic observed that monitoring well MW-3HA has been destroyed. This well was located off-site on the parcel that adjoins the Site to the west. The owner of the adjoining property stated that the well was destroyed during the winter of 2018-2019 by snow plowing operations. Future groundwater monitoring events will include the collection of samples from MW-3, MW-8 and MW-9 on a semi-annual basis.

During the November 9, 2021 groundwater sampling event, GeoLogic observed that monitoring well MW-7R appeared to have been abandoned. It is noted that this is an off-site well and was not part of the groundwater sampling program for the Site. GeoLogic utilized this well in the past to collect water levels.

On June 10, 2022, the NYSDEC approved GeoLogic's request to modify the SMP to reduce the groundwater monitoring frequency from twice per year to once per year. The SMP was revised to reflect this modification and Revision No. 3 to the SMP was submitted to the NYSDEC on August 4, 2022. Future groundwater monitoring events will include the collection of samples from MW-3, MW-8 and MW-9 on an annual basis.

During the April 13, 2023 groundwater sampling event, GeoLogic observed that monitoring well MW-3 appeared to have been abandoned. It is noted that this was an off-site well and was not installed or maintained by GeoLogic or the owner of the Site. Future groundwater monitoring events will include the collection of samples from MW-8 and MW-9 on an annual basis.

The project management team is as follows:

Property Owner:	Binghamton Realty, Inc.
Tenants:	Multiple Commercial Tenants.
Consultant:	GeoLogic NY, P.C. (GeoLogic)

Site Conditions Summary

The asphalt areas that experienced excavation activities in 2016 have been restored. No changes to the building footprint have occurred since the issuance of the COC.

There have been no changes to the building or to the HVAC system, during this reporting period, which would change or impact air exchange pathways or the operation/efficiency of the SSDS.

During GeoLogic's April 9, 2024 site visit, the building was occupied. The current tenants at the Site are summarized below:

- Roll N Vac. – assemble and sell modified shop-vac type vacuums;
- Proforma Printing – storage space.

Sub-Slab Depressurization System - Monitoring & Maintenance

The SSDS currently consists of seventeen extraction points connected to two roof-mounted blowers (see Figure No. 1). No changes to the SSDS have occurred during this reporting period.

The current tenants have been instructed to contact the Site owner, Mr. George P. Morgan of Binghamton Realty, Inc., if the system is not operating, or if the system becomes damaged (ex. breakage of extraction piping). To ensure that proper notification is in place in case of new employee(s), the following information has been provided to the tenants:

- Schematic of SSDS and the location of the system components;
- Labeling of components accessible to occupant(s); and
- Contact information for George P. Morgan and GeoLogic.

NYSDEC and NYSDOH are to be notified within 24 hours of failure of the SSDS.

Monitoring of the SSDS, for this reporting period, by GeoLogic included the following:

- A visual inspection of the SSDS components and building was completed by GeoLogic on April 9, 2024. Airflow readings and PID measurements were collected from within the accessible extraction pipes during the inspection. All PID readings have been 0 ppm, except where indicated otherwise in the tables below. During the April 9, 2024 site visit, the background PID reading was 0 ppm.

Summary Table - Vapor Mitigation System Air Flow Readings

Date	Extraction Point, Air Flow (feet-per-minute)													Effluent (PID (ppm))
	1	2	3	4	5	6	7	8	9	10	11	12	13	
1/14/2009	140	100	100	220	250	320	300	100	250					0
8/28/2009	100	100	150	250	NA	400	400	75	200					0
12/11/2009	100	70	180	200	180	250	300	120	75					0
6/03/2010	60	160	140	150	NA	240	390	70	165					0
10/25/2010	100	250	250	250	NA	250	450	190	295					0
5/19/2011	80/0	220	200	NA	NA	NA	420	200	150					NM
10/17/2011	100	180	NA	220	200	280	400	160	180					0
5/04/2012	113	115	160	172	260	250	341	50	144	47	30	53	53	NM
9/28/2012	67	108	102	108	NA	210	312	74	86	102	61	54	34	0
3/15/2013	NA	166	204	NA	245	235	326	98	49	140	49	41	91	NM
9/20/2013	196	259	293	321	382	357	NA	212	192	277	150	150	233	0
2/20/1014	101	NA	196	179	NA	261	115	49	57	147	48	72	68	NM
10/22/2014	122	68	NA	122	NA	186	343	99	94	161	45	92	72	0
2/19/2015	345	351	366	302	297	431	535	162	162	310	10	220	245	NM
8/19/2015	102	79	166	147	NA	203	370	88	77	166	35	57	245	0
3/17/2016	69	102	268	292	301	366	428	211	192	277	86	216	227	0
9/21/2016	75	111	215	307	283	310	389	251	165	228	103	184	236	NM

Date	Extraction Point, Air Flow (feet-per-minute)													Effluent (PID (ppm))
	1	2	3	4	5	6	7	8	9	10	11	12	13	
5/3/2017	107	72	161	139	NA	NA	283	89	186	159	36	161	NA	NM
5/24/2018	113	78	210	185	119	205	315	120	62	137	30	79	62	0
5/23/2019	197	80	226	149	403	246	373	110	66	217	156	150	43	0
6/8/2020	No air flow - blower not working													
6/3/2021	130	162	132	153	142	266 [0.1]	463 [0.3]	96 [0.2]	95 [0.1]	131 [0.1]	53	21	76 [0.1]	0.2
5/3/2022	154 [0.3]	148 [0.4]	246 [0.3]	196 [0.3]	339 [0.3]	253 [0.1]	392 [0.1]	103 [0.1]	169	123	28	42	83	0.1
4/13/2023	122	105	250	124	329	248	384	96	127	119	41	41	82	0
4/9/2024	178 [0.6]	107	265	158	331	276	307	81	139	110	44	27	101	0

Notes: NA – Not Accessible – blocked by inventory, shelving; NM – Not measured.
[0.1] = PID reading in ppm.

Summary Table, continued

Vapor Mitigation System Air Flow Readings

Date	Extraction Point, Air Flow (feet-per-minute)				Effluent (PID Reading)
	14	15	16	17	
10/22/2014	105	210	696	513	0
2/19/2015	243	384	1279	788	NM
8/19/2015	112	1010	760	581	0
3/17/2016	132	980	622	702	0
9/21/2016	127	869	732	765	NM
5/3/2017	105	147	679	679	NM
5/24/2018	62	196	1960	980	0
5/23/2019	30	259	1179	778	0
6/8/2020	36	218	984	532	0
6/3/2021	417 [0.1]	878 [0.1]	478 [0.6]	241 [0.3]	0.1
5/3/2022	829	248	480	93	0
4/13/2023	770	527	454	97	0
4/9/2024	614	486	414	127	0

No interruptions to the operation of the SSDS were reported to GeoLogic during this reporting period, except for power outages.

No damage was observed to the SSDS's piping or surface seals during the annual system inspection.

Groundwater Monitoring Summary

As required under the SMP, Revision No. 3, the annual groundwater monitoring event for monitoring wells MW-8 and MW-9 was completed on April 9, 2024.

The depth to groundwater was measured at each well and the data was used to develop the Water Table Elevations for the April 9, 2024 monitoring event (See Figure No. 2 and Table 1). Note: without data from MW-7R, it is not possible to determine the direction of groundwater flow. However, the direction of groundwater flow has been historically consistent, to the west.

The groundwater samples collected during the April 9, 2024 sampling event were analyzed for cadmium, chromium and hexavalent chromium.

Field parameters (temperature, conductivity, dissolved oxygen (DO), pH, oxidation-reduction potential (ORP) and turbidity) were measured during purging procedures to ensure that stability was achieved prior to groundwater sample collection (see Table 2). Note I: Starting in 2020, turbidity was added to the field parameters. Note II: During the April 9, 2024 monitoring event, the turbidity unit was malfunctioning resulting in negative turbidity readings at MW-8. Calibration was completed in the field and turbidity measurements were able to be collected MW-9. However, due to the short hold times associated with laboratory analysis for hexavalent chromium, turbidity measurements were not able to be collected at MW-8.

Post-remediation, cadmium concentrations in groundwater have ranged from not-detected to 130 µg/L. The highest concentration was observed at MW-8 which is adjacent to the remediation excavation and injection areas. It is noted that the highest concentration was observed in the November 14, 2018 sample and that the concentrations in the 2019 through 2024 samples from MW-8 were one order of magnitude lower. NYS Water Quality Standard for cadmium is 5 µg/L (See Table 3).

Post-remediation, total chromium concentrations in groundwater have ranged from 19.6 µg/L to 495 µg/L. The highest concentration was observed at MW-8 in the November 14, 2018 sample. The concentrations in the 2019 through 2024 samples from MW-8 were lower. The NYS Water Quality Standard for chromium is 50 µg/L (See Table 3).

Post-remediation, hexavalent chromium concentrations in groundwater have ranged from 22 µg/L to 320 µg/L. The highest concentration was observed at MW-3 in the November 13, 2019 sample. The concentrations in the 2020 through 2022 samples from MW-3 were lower. The NYS Water Quality Standard for hexavalent chromium is 50 µg/L (See Table 3).

Results from future monitoring events will continue to be utilized to monitor contaminant concentrations.

Recommendations

GeoLogic requests a modification to the laboratory analysis required as part of the groundwater monitoring program. The elimination of laboratory analysis for hexavalent chromium is requested. Historically, the concentrations of total chromium and hexavalent chromium detected in the groundwater samples are similar and total chromium concentrations reported in future samples will be sufficient to monitor chromium concentration trends at the Site. If an increase in total chromium concentrations is observed in future samples, the need to analyze groundwater samples for hexavalent chromium will be reevaluated.

If this request is acceptable, the SMP will be revised to reflect the modification to the groundwater monitoring program.

If you have any questions, or additional information is required, please contact the undersigned.

Prepared by,

GeoLogic NY, P.C.

Christopher T. Gabriel
Project Manager

Forrest C. Earl, P.G.
President/Principal Hydrogeologist

Enc: Appendix A Institutional and Engineering Controls Certification Form
Appendix B Figures
Appendix C Tables
Appendix D Laboratory Analysis Reports

cc via e-mail: G.P. Morgan, TCMF
M. Schuck, NYSDOH
C. Coddington, BCHD

cc: Fenton Public Library (paper copy only)
File: P:\PROJECTS\1999\99011A\REPORT\2024 Periodic Review Report\2024 PRR for Site No. C704045 TCMF - May 2024.doc

APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORM

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C704045

Site Name TCMF Hillcrest Facility

Site Address: 4 Nowlan Road Zip Code: 13904
City/Town: Binghamton
County: Broome
Site Acreage: 0.953

Reporting Period: April 20, 2023 to April 20, 2024

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☐

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	X

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

	YES	NO
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	X	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C704045 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
129.05-4-2	Binghamton Realty Inc.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

- The Controlled Property may be used for Commercial and Industrial.
- Prohibition on the use of groundwater.
- Site activities (i.e., monitoring and soil management) in compliance with the SMP.
- Evaluation of vapor intrusion for newly developed buildings.

129.05-4-5	Binghamton Realty Inc.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

- The Controlled Property may be used for Commercial and Industrial.
- Prohibition on the use of groundwater.
- Site activities (i.e., monitoring and soil management) in compliance with the SMP.
- Evaluation of vapor intrusion for newly occupied or developed buildings.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
129.05-4-2	Vapor Mitigation Cover System

- Sub-Slab Depressurization Systems with the Site building.
- Site Cover System.

129.05-4-5	Cover System

- Site Cover System.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C704045

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I George Morgan at 4 Nowlan rd bighhamton ny 13901,
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

G.P. Morgan 4/29/2024
Signature of Owner, Remedial Party, or Designated Representative Date
Rendering Certification

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Forrest C. Earl, P.G. (print name) at GeoLogic NY, P.C. PO Box 350, Homer, NY 13077 (print business address)

am certifying as a Qualified Environmental Professional for the Owner (Owner or Remedial Party)

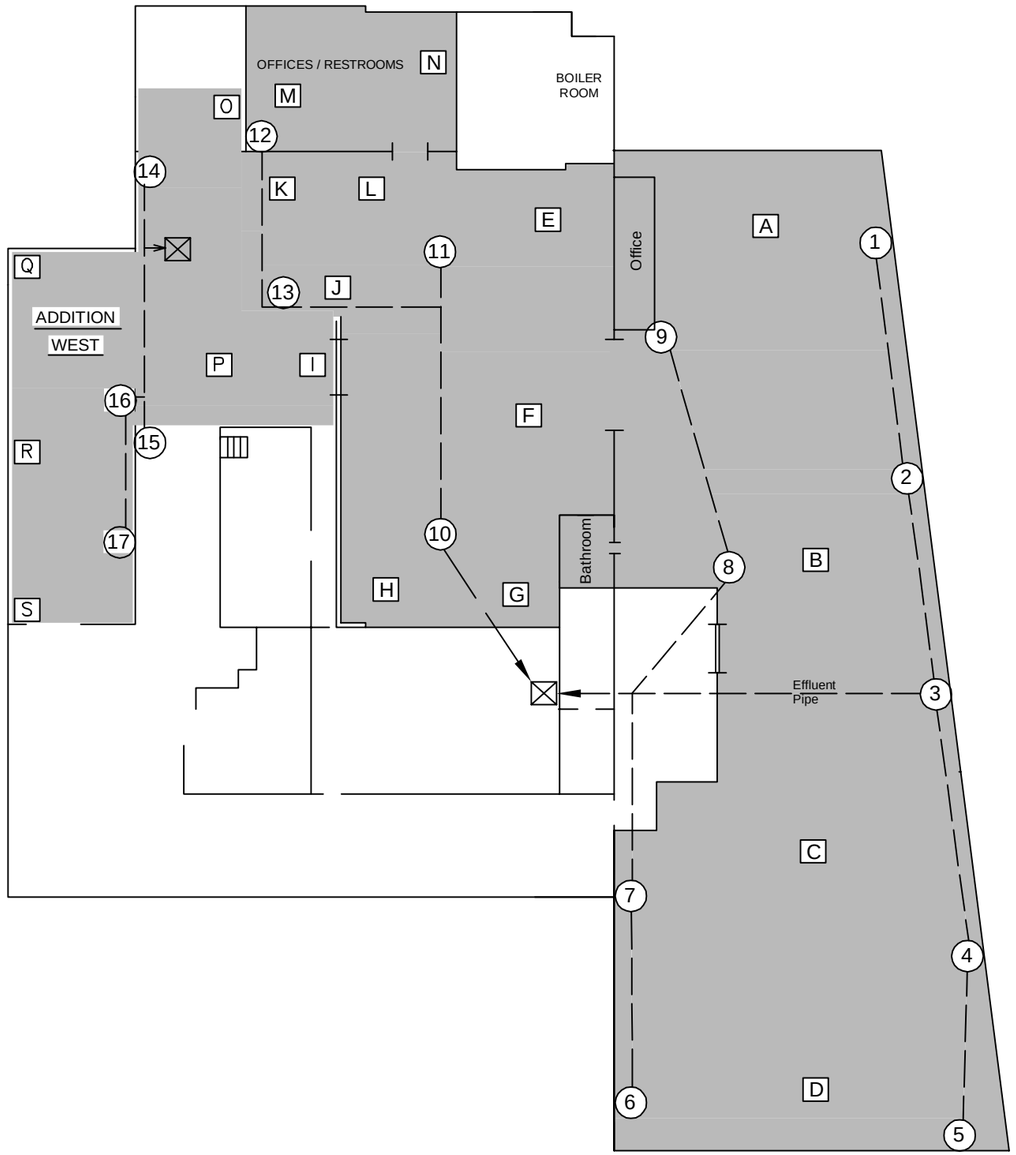
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		4-26-24

STATE OF NEW YORK
FORREST C EARL
000557
LICENSED PROFESSIONAL GEOLOGIST

APPENDIX B

FIGURES

NOWLAN ROAD



N

LEGEND:

1 EXTRACTION POINT-4" DIAMETER PVC PIPING

A PILOT POINT

ROTRON 404 AND 505 BLOWER

OCCUPIED AREA

\..\99011A\BCP Files\Drawings\SSD SYSTEM June 2020.dwg

GeoLogic

GeoLogic NY, P.C., Homer, New York

SSD SYSTEM LOCATION MAP
Triple Cities Metal Finishing
Binghamton, New York
Site No. C704045

DRAWN BY:	SCALE:	PROJECT NO.:
SMC/SDW	NTS	99011A
REVIEWED BY: KT	DATE: JUN. 2020	FIGURE NO.: 1

N

North

Legend:

- Monitoring Well Location (Approximate)
- Groundwater Contour
- 867 Water Table Elevation, April 9, 2024

GeoLogic

GeoLogic NY, P.C.

WATER TABLE ELEVATIONS – APRIL 2024
TRIPLE CITIES METAL FINISHING
BINGHAMTON, NEW YORK
BCP SITE NO. 704045

DRAWN BY:	SCALE:	PROJECT NO:
CTG	Not To Scale	99011A
REVIEWED BY:	DATE:	FIGURE NO:
FCE	APRIL 2024	2

APPENDIX C

TABLES

TABLE 1
GROUNDWATER ELEVATIONS

Well	MW-3		MW-3HA		MW-4		MW-5R		MW-6		MW-7R		MW-8		MW-9	
Top of Well Screen Elevation	**869.3**		**872.5**		**871.0**		**873.3**		**872.2**		**877.4**		**872.5**		**874.6**	
Bottom of Well Casing Elevation	**859.3**		**862.5**		**861.0**		**863.3**		**862.2**		**857.4**		**862.5**		**864.6**	
TOC Reference Elevation	**899.30**		**901.53**		**899.01**		**898.27**		**897.21**		**896.40**		**899.47**		**898.64**	
DATE	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**
10/29/2015	30.75	868.55	NA		33.22	865.79	NA		28.58	868.63	22.75	873.65	NA		NA	
4/11/2016	29.92	869.38	32.00	869.53	32.88	866.13	28.58	869.69	27.70	869.51	21.37	875.03	29.98	869.49	29.11	869.53
10/25/2016	30.93	868.37	32.99	868.54	33.37	865.64	29.81	868.46	28.66	868.55	23.50	872.90	31.01	868.46	30.27	868.37
1/4/2017	30.24	869.06	32.40	869.13	32.98	866.03	28.94	869.33	28.01	869.20	22.79	873.61	NA		29.51	869.13
5/3/2017	29.05	870.25	31.21	870.32	32.77	866.24	27.56	870.71	NA		18.06	878.34	29.14	870.33	28.25	870.39
11/16/2017	30.30	869.00	32.47	869.06	33.10	865.91	29.17	869.10	28.12	869.09	22.33	874.07	30.40	869.07	29.56	869.08
5/24/2018	29.40	869.90	31.55	869.98	NC		NC		NC		NC		29.50	869.97	28.64	870.00
11/14/2018	28.97	870.33	31.18	870.35	32.65	866.36	27.88	870.39	NA		18.57	877.83	29.07	870.40	28.20	870.44
5/23/2019	29.16	870.14	Destroyed during winter of 2018		Abandoned in December 2018		28.05	870.22	Abandoned in December 2018		19.09	877.31	29.26	870.21	28.40	870.24
11/13/2019	29.57	869.73					28.45	869.82			20.60	875.80	29.68	869.79	28.85	869.79
6/8/2020	29.62	869.68					28.52	869.75			20.27	876.13	29.79	869.68	28.91	869.73
11/10/2020	30.45	868.85					29.30	868.97			22.77	873.63	30.53	868.94	29.75	868.89
6/3/2021	29.50	869.80					NA				19.78	876.62	29.60	869.87	28.77	869.87
11/9/2021	31.46	867.84					30.38	867.89			Abandoned		31.64	867.83	30.91	867.73
5/3/2022	29.15	870.15					28.05	870.22					29.25	870.22	28.40	870.24
4/13/2023	Abandoned						24.48	873.79					29.70	869.77	28.90	869.74
4/9/2024	Abandoned						28.05	870.22					29.31	870.16	28.47	870.17

Notes:

TOC - Top of Casing DtoW - TOC Depth to Water Elev. - Elevation

NA - Not Accessible or Not Installed Yet. NC - Not collected due to miscommunication with field personnel.

Destroyed = Well destroyed. Abandoned = Well decommisioned.

TABLE 2
FIELD PARAMETERS

Well	Date	Temp. (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP	Turbidity (NTU)
MW-3	10/29/2015	14.48	0.788	4.93	7.58	219.2	
	4/11/2016	12.64	0.807	13.29	8.01	157.6	
	10/25/2016	14.41	0.767	3.17	8.18	271.1	
	1/4/2017	13.92	1.023	7.26	8.08	63.3	
	5/3/2017	12.35	1.431	7.56	7.63	260.5	
	11/16/2017	8.19	0.951	9.58	7.61	2.0	
	5/24/2018	12.62	0.980	8.55	7.62	246.8	
	11/14/2018	14.59	0.871	10.37	7.62	252.7	
	5/23/2019	12.64	0.908	15.14	7.73	286.4	
	11/13/2019	14.95	0.917	7.69	7.56	250.2	
	6/8/2020	12.80	0.741	8.78	7.74	190.5	386.1
	11/10/2020	13.81	0.960	10.01	7.06	313.0	752.0
	6/3/2021	12.90	0.414	8.33	7.53	178.7	289.0
	11/9/2021	14.10	1.044	8.00	7.61	190.2	324.0
	5/3/2022	12.90	1.447	8.63	7.79	56.1	273.8
	4/13/2023	**Abandoned**					
	4/9/2024						
MW-8	4/11/2016	12.44	0.569	4.01	8.29	-143.9	
	10/25/2016	13.94	0.755	7.71	8.45	228.9	
	1/4/2017	NS					
	5/3/2017	12.31	1.375	10.01	7.71	252.8	
	11/16/2017	8.21	1.009	10.26	7.92	12.8	
	5/24/2018	12.60	0.904	9.35	7.69	255.1	
	11/14/2018	14.01	0.838	9.18	7.71	252.4	
	5/23/2019	12.97	0.793	15.56	7.75	287.3	
	11/13/2019	14.04	0.853	7.93	7.53	299.2	
	6/8/2020	12.70	0.732	9.57	7.79	181.1	2,168.0
	11/10/2020	13.02	0.952	6.56	7.10	297.0	>1,000
	6/3/2021	12.80	0.383	8.90	7.50	165.3	1,920.4
	11/9/2021	14.00	0.997	8.51	7.63	258.6	2,784.0
	5/3/2022	13.10	1.174	9.46	7.87	94.6	3,595.3
	4/13/2023	13.50	0.946	8.97	7.72	233.5	2,110.0
	4/9/2024	12.20	0.664	9.72	7.57	259.5	NA
MW-9	4/11/2016	12.90	0.870	7.24	8.29	51.1	
	10/25/2016	14.88	0.705	10.16	8.63	230.6	
	1/4/2017	14.69	1.230	10.60	8.29	168.5	
	5/3/2017	11.99	1.294	10.78	7.83	238.6	
	11/16/2017	8.05	0.949	11.69	7.83	25.1	
	5/24/2018	12.36	0.778	10.22	7.80	243.9	
	11/14/2018	14.69	0.786	9.44	7.74	181.0	
	5/23/2019	11.87	0.690	16.96	7.81	281.7	
	11/13/2019	14.37	0.853	8.90	7.54	262.4	
	6/8/2020	12.10	0.671	10.00	7.80	183.5	139.6
	11/10/2020	12.79	1.100	10.04	7.06	323.0	>1,000
	6/3/2021	12.30	0.345	9.52	7.54	180.3	403.2
	11/9/2021	13.60	0.854	9.04	7.70	217.7	854.0
	5/3/2022	11.90	1.106	9.70	7.81	63.7	299.0
	4/13/2023	13.20	0.735	9.28	7.77	214.4	1,039.0
	4/9/2024	12.30	0.825	9.46	7.19	306.3	383.4

Notes: Turbidity added to field parameters in June 2020.
2024 Turbidity at MW-8 not available (NA) due to equipment malfunction.

TABLE 3
SUMMARY OF 2016 - 2024 GROUNDWATER METALS ANALYTICAL RESULTS

Well	Date	Cadmium	Chromium	Hexavalent Chromium
MW-3	4/11/2016	**10.5**	**161**	#N/A
	10/25/2016	**18.9**	**279**	#N/A
	1/4/2017	**13.2**	**210**	#N/A
	5/3/2017	**8.1**	**88.2**	**50**
	11/16/2017	**5.6**	**110**	**120**
	5/24/2018	**17.2**	**183**	**130**
	11/14/2018	**13.2**	**166**	**85**
	5/23/2019	**7.5**	**125**	**110**
	11/13/2019	**16.8**	**313**	**320**
	6/8/2020	**8.0**	**106**	**92**
	11/10/2020	**8.8**	**206**	**180**
	6/3/2021	3.5	**147**	**130**
	11/9/2021	**6.0**	**152**	**140**
	5/3/2022	<2.5 ND	**115**	**84**
	Abandoned			
MW-3HA	4/11/2016	**7.1**	19.6	#N/A
	10/25/2016	**18.8**	**57.8**	#N/A
	1/4/2017	**7.4**	26.4	#N/A
	5/3/2017	**11.7**	**54.4**	43
	11/16/2017	**8.2**	28.9	22
	5/24/2018	**16.8**	34.3	22
	11/14/2018	**18.7**	**63.6**	47
	Well Destroyed Winter 2018			
MW-8	4/11/2016	<3 U	**54.8**	#N/A
	10/25/2016	**7.9**	**254**	#N/A
	1/4/2017	Not Accessible		
	5/3/2017	**10.3**	**133**	**100**
	11/16/2017	3.1	**96.0**	**76**
	5/24/2018	**17.0**	**254**	**240**
	11/14/2018	**130**	**495**	**280**
	5/23/2019	**12.9**	**267**	**250**
	11/13/2019	**17.3**	**279**	**270**
	6/8/2020	**15.8**	**301**	**300**
	11/10/2020	**18.3**	**339**	**310**
	6/3/2021	**17.4**	**284**	**250**
	11/9/2021	**18.2**	**271**	**270**
	5/3/2022	**18.4**	**332**	**310**
	4/13/2023	**27.0**	**250**	**240**
	4/9/2024	**20**	**220**	**180**
MW-9	4/11/2016	4.8	**74.6**	#N/A
	10/25/2016	**7.5**	24.4	#N/A
	1/4/2017	**7.7**	**152**	#N/A
	5/3/2017	**6.5**	48.0	43
	11/16/2017	**5.0**	**70.3**	**50**
	5/24/2018	**14.9**	**90.4**	**87**
	11/14/2018	**11.0**	**65.4**	**53**
	5/23/2019	**11.9**	**82.8**	**75**
	11/13/2019	**16.2**	**89.0**	**75**
	6/8/2020	**7.7**	**64.9**	**53**
	11/10/2020	**10.2**	**110**	**94**
	6/3/2021	**7.3**	**80.3**	**61**
	11/9/2021	**6.3**	**65.1**	**60**
	5/3/2022	**6.2**	**85.2**	**75**
	4/13/2023	**8.5**	**79**	**76**
	4/9/2024	**5.5**	**69**	**59**
NYS Standard		**5**	**50**	**50**

Notes: #N/A = Not analyzed.
All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).
Highlight value exceed TOG 1.1.1 Water Quality Standards and/or Guidances for Class GA waters.
Monitoring requirement for VOCs was terminated in May 2017. See past reports for VOC results.

APPENDIX D

LABORATORY ANALYSIS REPORT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Christopher T Gabriel
Geologic NY Inc
PO BOX 350
37 Copeland Ave
Homer, New York 13077

Generated 4/19/2024 1:11:45 PM

JOB DESCRIPTION

TCMF Groundwater Sampling - 99011A

JOB NUMBER

480-218647-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

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Table of Contents

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: 480-218647-1 — Eurofins Buffalo

Job Narrative
480-218647-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/10/2024 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.3°C.

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

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

Detection Summary

Client: Geologic NY Inc
Job ID: 480-218647-1
Project/Site: TCMF Groundwater Sampling - 99011A

Client Sample ID: MW-8 — Lab Sample ID: 480-218647-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.020		0.0020	0.00050	mg/L	1		6010C	Total/NA
Chromium	0.22		0.0040	0.0010	mg/L	1		6010C	Total/NA
Chromium, hexavalent	0.18		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: MW-9 — Lab Sample ID: 480-218647-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.0055		0.0020	0.00050	mg/L	1		6010C	Total/NA
Chromium	0.069		0.0040	0.0010	mg/L	1		6010C	Total/NA
Chromium, hexavalent	0.059		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: DUPE — Lab Sample ID: 480-218647-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.020		0.0020	0.00050	mg/L	1		6010C	Total/NA
Chromium	0.21		0.0040	0.0010	mg/L	1		6010C	Total/NA
Chromium, hexavalent	0.35		0.010	0.0050	mg/L	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Geologic NY Inc
Job ID: 480-218647-1
Project/Site: TCMF Groundwater Sampling - 99011A

Client Sample ID: MW-8
Lab Sample ID: 480-218647-1
Date Collected: 04/09/24 12:50
Matrix: Water
Date Received: 04/10/24 10:30

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.020		0.0020	0.00050	mg/L		04/12/24 10:43	04/13/24 00:49	1
Chromium	0.22		0.0040	0.0010	mg/L		04/12/24 10:43	04/15/24 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	0.18		0.010	0.0050	mg/L			04/10/24 11:45	1

Client Sample ID: MW-9
Lab Sample ID: 480-218647-2
Date Collected: 04/09/24 12:40
Matrix: Water
Date Received: 04/10/24 10:30

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0055		0.0020	0.00050	mg/L		04/12/24 10:43	04/13/24 00:53	1
Chromium	0.069		0.0040	0.0010	mg/L		04/12/24 10:43	04/15/24 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	0.059		0.010	0.0050	mg/L			04/10/24 11:45	1

Client Sample ID: DUPE
Lab Sample ID: 480-218647-3
Date Collected: 04/09/24 12:35
Matrix: Water
Date Received: 04/10/24 10:30

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.020		0.0020	0.00050	mg/L		04/12/24 10:43	04/13/24 01:21	1
Chromium	0.21		0.0040	0.0010	mg/L		04/12/24 10:43	04/15/24 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	0.35		0.010	0.0050	mg/L			04/10/24 11:45	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-707315/1-A
Matrix: Water
Analysis Batch: 707574

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 707315

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020	0.00050	mg/L		04/12/24 10:43	04/13/24 00:42	1

Lab Sample ID: MB 480-707315/1-A
Matrix: Water
Analysis Batch: 707827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 707315

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0040	0.0010	mg/L		04/12/24 10:43	04/15/24 14:17	1

Lab Sample ID: LCS 480-707315/2-A
Matrix: Water
Analysis Batch: 707574

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 707315

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.500	0.538		mg/L		108	80 - 120

Lab Sample ID: LCS 480-707315/2-A
Matrix: Water
Analysis Batch: 707827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 707315

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.500	0.500		mg/L		100	80 - 120

Lab Sample ID: 480-218647-2 MS
Matrix: Water
Analysis Batch: 707574

Client Sample ID: MW-9-MS
Prep Type: Total/NA
Prep Batch: 707315

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.0055		0.500	0.546		mg/L		108	75 - 125

Lab Sample ID: 480-218647-2 MS
Matrix: Water
Analysis Batch: 707827

Client Sample ID: MW-9-MS
Prep Type: Total/NA
Prep Batch: 707315

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.069		0.500	0.562		mg/L		99	75 - 125

Lab Sample ID: 480-218647-2 MSD
Matrix: Water
Analysis Batch: 707574

Client Sample ID: MW-9-MSD
Prep Type: Total/NA
Prep Batch: 707315

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	0.0055		0.500	0.544		mg/L		108	75 - 125	0	20

Lab Sample ID: 480-218647-2 MSD
Matrix: Water
Analysis Batch: 707827

Client Sample ID: MW-9-MSD
Prep Type: Total/NA
Prep Batch: 707315

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	0.069		0.500	0.550		mg/L		96	75 - 125	2	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-707057/3
Matrix: Water
Analysis Batch: 707057

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			04/10/24 11:45	1

Lab Sample ID: LCS 480-707057/4
Matrix: Water
Analysis Batch: 707057

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	0.0528		mg/L		106	85 - 115		

Lab Sample ID: 480-218647-2 MS
Matrix: Water
Analysis Batch: 707057

Client Sample ID: MW-9-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chromium, hexavalent	0.057		0.0500	0.103		mg/L		93	85 - 115		

Lab Sample ID: 480-218647-2 MSD
Matrix: Water
Analysis Batch: 707057

Client Sample ID: MW-9-MSD
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	0.057		0.0500	0.107		mg/L		101	85 - 115	4	20

Lab Sample ID: 480-218647-1 DU
Matrix: Water
Analysis Batch: 707057

Client Sample ID: MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chromium, hexavalent	0.18			0.183		mg/L				0	20

QC Association Summary

Client: Geologic NY Inc
Job ID: 480-218647-1
Project/Site: TCMF Groundwater Sampling - 99011A

Metals

Prep Batch: 707315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-218647-1	MW-8	Total/NA	Water	3005A	
480-218647-2	MW-9	Total/NA	Water	3005A	
480-218647-3	DUPE	Total/NA	Water	3005A	
MB 480-707315/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-707315/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-218647-2 MS	MW-9-MS	Total/NA	Water	3005A	
480-218647-2 MSD	MW-9-MSD	Total/NA	Water	3005A	

Analysis Batch: 707574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-218647-1	MW-8	Total/NA	Water	6010C	707315
480-218647-2	MW-9	Total/NA	Water	6010C	707315
480-218647-3	DUPE	Total/NA	Water	6010C	707315
MB 480-707315/1-A	Method Blank	Total/NA	Water	6010C	707315
LCS 480-707315/2-A	Lab Control Sample	Total/NA	Water	6010C	707315
480-218647-2 MS	MW-9-MS	Total/NA	Water	6010C	707315
480-218647-2 MSD	MW-9-MSD	Total/NA	Water	6010C	707315

Analysis Batch: 707827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-218647-1	MW-8	Total/NA	Water	6010C	707315
480-218647-2	MW-9	Total/NA	Water	6010C	707315
480-218647-3	DUPE	Total/NA	Water	6010C	707315
MB 480-707315/1-A	Method Blank	Total/NA	Water	6010C	707315
LCS 480-707315/2-A	Lab Control Sample	Total/NA	Water	6010C	707315
480-218647-2 MS	MW-9-MS	Total/NA	Water	6010C	707315
480-218647-2 MSD	MW-9-MSD	Total/NA	Water	6010C	707315

General Chemistry

Analysis Batch: 707057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-218647-1	MW-8	Total/NA	Water	7196A	
480-218647-2	MW-9	Total/NA	Water	7196A	
480-218647-3	DUPE	Total/NA	Water	7196A	
MB 480-707057/3	Method Blank	Total/NA	Water	7196A	
LCS 480-707057/4	Lab Control Sample	Total/NA	Water	7196A	
480-218647-2 MS	MW-9-MS	Total/NA	Water	7196A	
480-218647-2 MSD	MW-9-MSD	Total/NA	Water	7196A	
480-218647-1 DU	MW-8	Total/NA	Water	7196A	

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-218647-1
Project/Site: TCMF Groundwater Sampling - 99011A

Client Sample ID: MW-8
Lab Sample ID: 480-218647-1
Date Collected: 04/09/24 12:50
Matrix: Water
Date Received: 04/10/24 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			707315	EMO	EET BUF	04/12/24 10:43
Total/NA	Analysis	6010C		1	707574	NZG	EET BUF	04/13/24 00:49
Total/NA	Prep	3005A			707315	EMO	EET BUF	04/12/24 10:43
Total/NA	Analysis	6010C		1	707827	NZG	EET BUF	04/15/24 14:23
Total/NA	Analysis	7196A		1	707057	KM	EET BUF	04/10/24 11:45

Client Sample ID: MW-9
Lab Sample ID: 480-218647-2
Date Collected: 04/09/24 12:40
Matrix: Water
Date Received: 04/10/24 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			707315	EMO	EET BUF	04/12/24 10:43
Total/NA	Analysis	6010C		1	707574	NZG	EET BUF	04/13/24 00:53
Total/NA	Prep	3005A			707315	EMO	EET BUF	04/12/24 10:43
Total/NA	Analysis	6010C		1	707827	NZG	EET BUF	04/15/24 14:27
Total/NA	Analysis	7196A		1	707057	KM	EET BUF	04/10/24 11:45

Client Sample ID: DUPE
Lab Sample ID: 480-218647-3
Date Collected: 04/09/24 12:35
Matrix: Water
Date Received: 04/10/24 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			707315	EMO	EET BUF	04/12/24 10:43
Total/NA	Analysis	6010C		1	707574	NZG	EET BUF	04/13/24 01:21
Total/NA	Prep	3005A			707315	EMO	EET BUF	04/12/24 10:43
Total/NA	Analysis	6010C		1	707827	NZG	EET BUF	04/15/24 14:54
Total/NA	Analysis	7196A		1	707057	KM	EET BUF	04/10/24 11:45

Laboratory References:
EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Geologic NY Inc
Job ID: 480-218647-1
Project/Site: TCMF Groundwater Sampling - 99011A

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

Method Summary

Client: Geologic NY Inc
Job ID: 480-218647-1
Project/Site: TCMF Groundwater Sampling - 99011A

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	EET BUF
7196A	Chromium, Hexavalent	SW846	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Geologic NY Inc
Job ID: 480-218647-1
Project/Site: TCMF Groundwater Sampling - 99011A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-218647-1	MW-8	Water	04/09/24 12:50	04/10/24 10:30
480-218647-2	MW-9	Water	04/09/24 12:40	04/10/24 10:30
480-218647-3	DUPE	Water	04/09/24 12:35	04/10/24 10:30

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

Chain of Custody Record

eurofins | Environment Testing

Client Information
Client Contact: Mr. Christopher Gabriel
Company: Geologic NY Inc
Address: PO BOX 350 37 Copeland Ave
City: Homer
State, Zip: NY, 13077
Phone: 607-749-5000(Tel)
Email: ChrisG@geologic.net
Project Name: Groundwater Sampling - 99011A
Site: TCMF

Sampler: Joe Menzel
Phone:
Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin: NY
PWSID:
Due Date Requested: Standard
TAT Requested (days):
Compliance Project: Δ Yes Δ No
PO #: 99011A
WO #:
Project #: 48026360
SSOW#:

Syracuse #225

COC No: 480-194882-40577.1
Page: Page 1 of 1
Job #:

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, Y - Trizma, 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)	6010C - Metals (ICP) - Cd,Cr	7196A - Chromium, Hexavalent	Total Number of containers	Special Instructions/Note:
	Preservation Code:						D	N		
MW-8	4-9-24	12:50	G	Water			X	X		
MW-9	4-9-24	12:40	G	Water			X	X		
MW-9-MS	4-9-24	12:40	G	Water			X	X		
MW-9-MSD	4-9-24	12:40	G	Water			X	X		
DUPE	4-9-24	12:35	G	Water			X	X		

480-218647 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify)
Special Instructions/QC Requirements:

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

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	4-9-24 15:03	Eurofins			
Relinquished by:	4-9-24, 1900	Eurofins			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
			Received by:	4/10/24 1030	TAB

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: #1 3.3

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Client Information
Client Contact: Mr. Christopher Gabriel
Company: Geologic NY Inc
Address: PO BOX 350 37 Copeland Ave
City: Homer
State, Zip: NY, 13077
Phone: 607-749-5000(Tel)
Email: ChrisG@geologic.net
Project Name: Groundwater Sampling - 99011A
Site: TCMF

Sampler: Joe Menzel
Phone:
Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin: Syracuse #225
COC No: 480-194882-40577.1
Page: Page 1 of 1
Job #:
PWSID:

Due Date Requested: Standard
TAT Requested (days):
Compliance Project: Δ Yes Δ No
PO #: 99011A
WO #:
Project #: 48026360
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, Y - Trizma, 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)	6010C - Metals (ICP) - Cd,Cr	7196A - Chromium, Hexavalent	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N		
MW-8	4-9-24	12:50	G	Water			X	X		
MW-9	4-9-24	12:40	G	Water			X	X		
MW-9-MS	4-9-24	12:40	G	Water			X	X		
MW-9-MSD	4-9-24	12:40	G	Water			X	X		
DUPE	4-9-24	12:35	G	Water			X	X		

480-218647 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify)
Special Instructions/QC Requirements:

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

	Date/Time	Company		Date/Time	Company
Relinquished by:	4-9-24 15:03		Received by:	4.9.24, 15:05	
Relinquished by:	4-9-24, 1900		Received by:	4/10/24 1030	TAB
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: #1 3.3

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Syracuse #225

Client Information	Sampler: Joe Menzel	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-194882-40577.1
Client Contact: Mr. Christopher Gabriel	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Geologic NY Inc	PWSID:			Job #:

Address: PO BOX 350 37 Copeland Ave	Due Date Requested: Standard
City: Homer	TAT Requested (days):
State, Zip: NY, 13077	Compliance Project: Δ Yes Δ No
Phone: 607-749-5000(Tel)	PO #: 99011A
Email: ChrisG@geologic.net	WO #:
Project Name: Groundwater Sampling - 99011A	Project #: 48026360
Site: TCMF	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, Y - Trizma, 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)	6010C - Metals (ICP) - Cd,Cr	7196A - Chromium, Hexavalent	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N		
MW-8	4-9-24	12:50	G	Water			x	x		
MW-9	4-9-24	12:40	G	Water			x	x		
MW-9-MS	4-9-24	12:40	G	Water			x	x		
MW-9-MSD	4-9-24	12:40	G	Water			x	x		
DUPE	4-9-24	12:35	G	Water			x	x		

4-9-24

480-218647 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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
	4-9-24 15:03			4-9-24, 15:05	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4-9-24, 1900			4/10/24 1030	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.3

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Syracuse #225

Client Information	Sampler: Joe Menzel	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-194882-40577.1
Client Contact: Mr. Christopher Gabriel	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Geologic NY Inc	PWSID:			Job #:
Address: PO BOX 350 37 Copeland Ave	Due Date Requested: Standard			
City: Homer	TAT Requested (days):			
State, Zip: NY, 13077	Compliance Project: Δ Yes Δ No			
Phone: 607-749-5000(Tel)	PO #: 99011A			
Email: ChrisG@geologic.net	WO #:			
Project Name: Groundwater Sampling - 99011A	Project #: 48026360			
Site: TCMF	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, Y - Trizma, 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)	6010C - Metals (ICP) - Cd,Cr D	7196A - Chromium, Hexavalent N	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW-8	4-9-24	12:50	G	Water			x	x		
MW-9	4-9-24	12:40	G	Water			x	x		
MW-9-MS	4-9-24	12:40	G	Water			x	x		
MW-9-MSD	4-9-24	12:40	G	Water			x	x		
DUPE	4-9-24	12:35	G	Water			x	x		

4-9-24

480-218647 Chain of Custody

Possible Hazard Identification

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	4-9-24 15:03		[signature]	4-9-24, 15:05	
2	[signature]	4-9-24, 1900		[signature]	4/10/24 1030	TAL
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	#1 3.3

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-218647-1

Login Number: 218647
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins Buffalo

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