



August 29, 2023

Benjamin McPherson, P.E.
Professional Engineer 1 (Environmental)
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203

Subject: Carbon Efficiency
In Situ Stabilization
Riverview Innovation & Technology Campus
3875 River Road
Town of Tonawanda, New York
Site No. C915353

Dear Mr. McPherson,

As you are aware, the bench-scale testing being conducted for the Pre-design Investigations is underway. To date, combinations of Lime Kiln Dust (LKD) and breeze and Portland cement and breeze have been effective for all samples except those from the Tar Management Area. Additional testing of samples from the Tar Management Area will be conducted in the near future. Breeze has been a critical component of the bench-scale tests as both an absorbent and aggregate. In addition, the New York State department of Environmental Conservation (NYSDEC) requested testing of the breeze for total organic carbon to investigate whether the breeze is adsorbing organic compounds into the materials matrix as well.

Analytical testing of the breeze showed the total organic carbon content was 78-percent (Attachment A). The availability of total organic carbon in the breeze as an adsorption agent is unknown. To determine if there is a third mechanism (in addition to hydration of the binding agent and absorption) affecting the efficiency of the stabilization process, Inventum is proposing a limited adsorption trial to be carried out at the BCP Site. The tests will mimic the effect of direct contact between site groundwater and the breeze, absent the hydration and binding agent.

A 5- gallon sample will be collected from Sump #2 adjacent to the light oil area. An aliquot of the bulk sample and a sample of breeze will be submitted for Volatile Organic

Compounds (VOC) via EPA method 8260, Semi-volatile Organic Compounds (SVOC) via EPA method 8270 , ammonia (350.1) and cyanide (335.1) analyses.

The bottom stoppers will be closed. Approximately 2,000 milliliters (0.5-gallon) of breeze will be placed into two clean tapered glass separatory funnel with conical shape vessels (Photograph No. 1). Clean quartz sand will be placed in two additional vessels. The breeze and sand will be placed to the top of the tapered section, allowing space should the breeze expand. A photograph of the setup prior to introduction of the groundwater will be taken.

Groundwater will be introduced into one sand filled vessel and both breeze filled vessels, the top stopper will be closed. Distilled water will be introduced into one sand filled vessel and the top stopper will be closed.



Photograph No. 1
Test Setup



The breeze in each sample vessel will be saturated with groundwater from the Sump #2 bulk sample. Assuming 30-percent porosity, approximately 600 milliliters (ml) will be siphoned into each vessel minimizing aeration of the sample. The groundwater sample will be added until there is no less than 2-centimeters (cm) of free liquid above the breeze. The top of the breeze and top of water will be marked on the exterior of the sample vessel. A photograph of the setup with the groundwater will be taken.

To simulate the contact that will occur during In Situ Stabilization (ISS) the breeze, sand and groundwater will be allowed to stay in contact for no less than 24-hours. This period will allow any trapped air to escape and the groundwater and breeze to come into contact as they will during ISS. The position of the top of the breeze and groundwater will be measured against the initial position and a photograph will be taken prior to drawing the samples. Samples from each vessel will be collected directly from the bottom of the vessel and will be sent to the laboratory for VOC (8260), SVOC (8270), ammonia (350.1) and cyanide (335.1) analyses.

	Untreated Groundwater	Groundwater/ Breeze	Groundwater/ Breeze	Groundwater/ Quartz Sand	Distilled Water/ Quartz Sand
		Vessel #1	Vessel #2	Vessel #3	Vessel #4
VOC's (8260)	✓	✓	✓	✓	✓
SVOC's (8270)	✓	✓	✓	✓	✓
Ammonia (350.1)	✓	✓	✓	✓	✓
Cyanide (335.1)	✓	✓	✓	✓	✓

Testing Summary

A summary table of the pre- and post-testing groundwater quality will be submitted to document if a third mechanism, adsorption, is likely to be occurring during the stabilization process.

Please let us know if you have any comments or questions.



Sincerely yours,

A handwritten signature in blue ink, appearing to read "John P. Black", is centered on a light yellow rectangular background.

John P. Black
Partner

Attachment

Ecc: John Yensan, OSC
Dan Flanagan, OSC
Roxanne Birx, Inventum
Peter Zaffram, Inventum
Angela Martin, NYSDOH
Andrea Caprio, NYSDEC

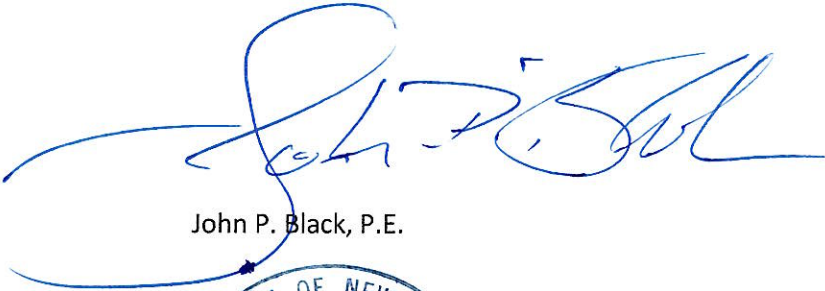


Engineering Certification

I, John P. Black certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Carbon Availability Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

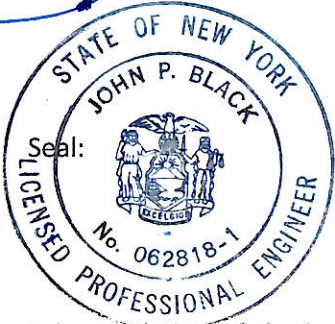
Respectfully Submitted,

Inventum Engineering, P.C.

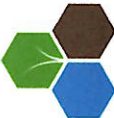


Date: 8.30.2023

License No: 062818-1



It is a violation of the laws of New York for any person, unless acting under the direction of a Licensed Professional Engineer, to alter any item or any portion of this document in any way. If an item bearing the seal of a Licensed Professional Engineer is altered, the altering Engineer shall affix to the item his/her seal and notation "altered by" followed by his/her signature and the date of such alternation, and a specific description of the alteration.



Appendix



JOB: L2347700 REPORT STYLE: Data Usability Report
0010: Alpha Analytical Report Cover Page - OK
0015: Sample Cross Reference Summary - OK
0060: Case Narrative - OK
0100: Volatiles Cover Page - OK
0110: Volatiles Sample Results - OK
0120: Volatiles Method Blank Report - OK
0130: Volatiles LCS Report - OK
0180: Semivolatiles Cover Page - OK
0190: Semivolatiles Sample Results - OK
0200: Semivolatiles Method Blank Report - OK
0210: Semivolatiles LCS Report - OK
1180: Inorganics Cover Page - OK
1200: Wet Chemistry Sample Results - OK
1210: Wet Chemistry Method Blank Report - OK
1220: Wet Chemistry LCS Report - OK
1240: Wet Chemistry Matrix Spike Report - OK
1250: Wet Chemistry Duplicate Report - OK
5100: Sample Receipt & Container Information Report - OK
5200: Glossary - OK
5400: References - OK

No results found for sample L2347700-01 for product AG-TI
No results found for sample L2347700-01 for product AL-TI
No results found for sample L2347700-01 for product AS-TI
No results found for sample L2347700-01 for product BA-TI
No results found for sample L2347700-01 for product BE-TI
No results found for sample L2347700-01 for product CA-TI
No results found for sample L2347700-01 for product CD-TI
No results found for sample L2347700-01 for product CO-TI
No results found for sample L2347700-01 for product CR-TI
No results found for sample L2347700-01 for product CU-TI
No results found for sample L2347700-01 for product FE-TI
No results found for sample L2347700-01 for product HG-T
No results found for sample L2347700-01 for product K-TI
No results found for sample L2347700-01 for product MG-TI
No results found for sample L2347700-01 for product MN-TI
No results found for sample L2347700-01 for product NA-TI
No results found for sample L2347700-01 for product NI-TI
No results found for sample L2347700-01 for product PB-TI
No results found for sample L2347700-01 for product SB-TI
No results found for sample L2347700-01 for product SE-TI
No results found for sample L2347700-01 for product TL-TI
No results found for sample L2347700-01 for product V-TI

No results found for sample L2347700-01 for product ZN-TI



ANALYTICAL REPORT

Lab Number:	L2347700
Client:	Inventum Engineering 441 Carlisle Drive Suite C Herndon, NY 20170
ATTN:	John Black
Phone:	(571) 752-6562
Project Name:	RITC
Project Number:	BENCH SCALE-TOC
Report Date:	08/28/23

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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



Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2347700-01	BREEZE-08172023	SEDIMENT	3875 RIVER ROAD	08/17/23 11:35	08/17/23
L2347700-02	SS-BCP-24-02-08172023	SEDIMENT	3875 RIVER ROAD	08/17/23 11:45	08/17/23
L2347700-03	SS-BCP-24-04-08172023	SEDIMENT	3875 RIVER ROAD	08/17/23 11:45	08/17/23
L2347700-04	SS-BCP-24-06-08172023	SEDIMENT	3875 RIVER ROAD	08/17/23 11:48	08/17/23

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

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: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Case Narrative (continued)

Report Submission

August 28, 2023: This is a preliminary report.

August 24, 2023: 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

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.

Cyanide, Total

The WG1817873-3 LCSD recovery for cyanide, total (77%), associated with L2347700-01 and -02, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

The WG1817875-3 LCSD recovery for cyanide, total (76%), associated with L2347700-03 and -04, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Nitrogen, Ammonia

The WG1817932-3 Laboratory Duplicate RPD for nitrogen, ammonia (150%), performed on L2347700-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Total Organic Carbon

WG1820886: The required batch QC was prepared; however, the native sample required a different reporting method; therefore, the associated QC results could not be 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:

 Cristin Walker

Title: Technical Director/Representative

Date: 08/28/23

ORGANICS

VOLATILES

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-01
 Client ID: BREEZE-08172023
 Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:35
 Date Received: 08/17/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8260D
 Analytical Date: 08/23/23 14:03
 Analyst: AJK
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.80	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	1.2		ug/kg	1.2	0.63	1
Ethylbenzene	0.28	J	ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.67	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-01
 Client ID: BREEZE-08172023
 Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:35
 Date Received: 08/17/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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	0.23	1
p/m-Xylene	0.84	J	ug/kg	2.3	0.65	1
o-Xylene	0.36	J	ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	3.2		ug/kg	1.2	0.20	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.0	1
Acetone	ND		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
Methyl Acetate	ND		ug/kg	4.6	1.1	1
Cyclohexane	ND		ug/kg	12	0.63	1
1,4-Dioxane	ND		ug/kg	93	41.	1
Freon-113	ND		ug/kg	4.6	0.80	1
Methyl cyclohexane	ND		ug/kg	4.6	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	101		70-130

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/23/23 08:25
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1819331-5					
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
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	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
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
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

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/23/23 08:25
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1819331-5					
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
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	80	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/23/23 08:25
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1819331-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	107		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1819331-3 WG1819331-4								
Methylene chloride	97		91		70-130	6		30
1,1-Dichloroethane	102		93		70-130	9		30
Chloroform	88		81		70-130	8		30
Carbon tetrachloride	95		83		70-130	13		30
1,2-Dichloropropane	97		92		70-130	5		30
Dibromochloromethane	102		98		70-130	4		30
1,1,2-Trichloroethane	106		102		70-130	4		30
Tetrachloroethene	115		101		70-130	13		30
Chlorobenzene	102		97		70-130	5		30
Trichlorofluoromethane	112		96		70-139	15		30
1,2-Dichloroethane	96		93		70-130	3		30
1,1,1-Trichloroethane	98		87		70-130	12		30
Bromodichloromethane	94		89		70-130	5		30
trans-1,3-Dichloropropene	99		98		70-130	1		30
cis-1,3-Dichloropropene	98		98		70-130	0		30
Bromoform	93		92		70-130	1		30
1,1,2,2-Tetrachloroethane	97		92		70-130	5		30
Benzene	99		93		70-130	6		30
Toluene	103		94		70-130	9		30
Ethylbenzene	106		97		70-130	9		30
Chloromethane	108		95		52-130	13		30
Bromomethane	95		86		57-147	10		30
Vinyl chloride	114		94		67-130	19		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1819331-3 WG1819331-4								
Chloroethane	101		91		50-151	10		30
1,1-Dichloroethene	106		92		65-135	14		30
trans-1,2-Dichloroethene	102		94		70-130	8		30
Trichloroethene	108		99		70-130	9		30
1,2-Dichlorobenzene	101		94		70-130	7		30
1,3-Dichlorobenzene	105		98		70-130	7		30
1,4-Dichlorobenzene	103		98		70-130	5		30
Methyl tert butyl ether	96		94		66-130	2		30
p/m-Xylene	110		101		70-130	9		30
o-Xylene	106		99		70-130	7		30
cis-1,2-Dichloroethene	97		79		70-130	20		30
Styrene	110		105		70-130	5		30
Dichlorodifluoromethane	115		96		30-146	18		30
Acetone	95		97		54-140	2		30
Carbon disulfide	104		90		59-130	14		30
2-Butanone	86		90		70-130	5		30
4-Methyl-2-pentanone	95		90		70-130	5		30
2-Hexanone	94		91		70-130	3		30
Bromochloromethane	98		84		70-130	15		30
1,2-Dibromoethane	104		102		70-130	2		30
1,2-Dibromo-3-chloropropane	108		100		68-130	8		30
Isopropylbenzene	107		95		70-130	12		30
1,2,3-Trichlorobenzene	98		97		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1819331-3 WG1819331-4								
1,2,4-Trichlorobenzene	99		98		70-130	1		30
Methyl Acetate	102		94		51-146	8		30
Cyclohexane	110		72		59-142	42	Q	30
1,4-Dioxane	99		88		65-136	12		30
Freon-113	112		96		50-139	15		30
Methyl cyclohexane	107		92		70-130	15		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		96		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	90		90		70-130

SEMIVOLATILES

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-01 D
 Client ID: BREEZE-08172023
 Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:35
 Date Received: 08/17/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270E
 Analytical Date: 08/21/23 16:03
 Analyst: JG
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 08/20/23 04:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	640	J	ug/kg	770	99.	5
Hexachlorobenzene	ND		ug/kg	580	110	5
Bis(2-chloroethyl)ether	ND		ug/kg	860	130	5
2-Chloronaphthalene	ND		ug/kg	960	95.	5
3,3'-Dichlorobenzidine	ND		ug/kg	960	260	5
2,4-Dinitrotoluene	ND		ug/kg	960	190	5
2,6-Dinitrotoluene	ND		ug/kg	960	160	5
Fluoranthene	24000		ug/kg	580	110	5
4-Chlorophenyl phenyl ether	ND		ug/kg	960	100	5
4-Bromophenyl phenyl ether	ND		ug/kg	960	150	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1200	160	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1000	96.	5
Hexachlorobutadiene	ND		ug/kg	960	140	5
Hexachlorocyclopentadiene	ND		ug/kg	2700	870	5
Hexachloroethane	ND		ug/kg	770	160	5
Isophorone	ND		ug/kg	860	120	5
Naphthalene	5000		ug/kg	960	120	5
Nitrobenzene	ND		ug/kg	860	140	5
NDPA/DPA	ND		ug/kg	770	110	5
n-Nitrosodi-n-propylamine	ND		ug/kg	960	150	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	960	330	5
Butyl benzyl phthalate	ND		ug/kg	960	240	5
Di-n-butylphthalate	ND		ug/kg	960	180	5
Di-n-octylphthalate	ND		ug/kg	960	330	5
Diethyl phthalate	ND		ug/kg	960	89.	5
Dimethyl phthalate	ND		ug/kg	960	200	5
Benzo(a)anthracene	9100		ug/kg	580	110	5
Benzo(a)pyrene	9500		ug/kg	770	230	5

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-01 D
 Client ID: BREEZE-08172023
 Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:35
 Date Received: 08/17/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	12000		ug/kg	580	160	5
Benzo(k)fluoranthene	2900		ug/kg	580	150	5
Chrysene	9800		ug/kg	580	100	5
Acenaphthylene	2700		ug/kg	770	150	5
Anthracene	4000		ug/kg	580	190	5
Benzo(ghi)perylene	6000		ug/kg	770	110	5
Fluorene	2900		ug/kg	960	93.	5
Phenanthrene	18000		ug/kg	580	120	5
Dibenzo(a,h)anthracene	1500		ug/kg	580	110	5
Indeno(1,2,3-cd)pyrene	5600		ug/kg	770	130	5
Pyrene	18000		ug/kg	580	95.	5
Biphenyl	340	J	ug/kg	2200	120	5
4-Chloroaniline	ND		ug/kg	960	170	5
2-Nitroaniline	ND		ug/kg	960	180	5
3-Nitroaniline	ND		ug/kg	960	180	5
4-Nitroaniline	ND		ug/kg	960	400	5
Dibenzofuran	1700		ug/kg	960	91.	5
2-Methylnaphthalene	1300		ug/kg	1200	120	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	960	100	5
Acetophenone	ND		ug/kg	960	120	5
2,4,6-Trichlorophenol	ND		ug/kg	580	180	5
p-Chloro-m-cresol	ND		ug/kg	960	140	5
2-Chlorophenol	ND		ug/kg	960	110	5
2,4-Dichlorophenol	ND		ug/kg	860	150	5
2,4-Dimethylphenol	ND		ug/kg	960	320	5
2-Nitrophenol	ND		ug/kg	2100	360	5
4-Nitrophenol	ND		ug/kg	1300	390	5
2,4-Dinitrophenol	ND		ug/kg	4600	450	5
4,6-Dinitro-o-cresol	ND		ug/kg	2500	460	5
Pentachlorophenol	ND		ug/kg	770	210	5
Phenol	150	J	ug/kg	960	140	5
2-Methylphenol	ND		ug/kg	960	150	5
3-Methylphenol/4-Methylphenol	150	J	ug/kg	1400	150	5
2,4,5-Trichlorophenol	ND		ug/kg	960	180	5
Carbazole	1300		ug/kg	960	93.	5
Atrazine	ND		ug/kg	770	340	5
Benzaldehyde	ND		ug/kg	1300	260	5

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-01 D
 Client ID: BREEZE-08172023
 Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:35
 Date Received: 08/17/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	960	290	5
2,3,4,6-Tetrachlorophenol	ND		ug/kg	960	190	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	28		25-120
Phenol-d6	36		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	86		30-120
2,4,6-Tribromophenol	51		10-136
4-Terphenyl-d14	77		18-120

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 08/21/23 14:06
Analyst: MG

Extraction Method: EPA 3546
Extraction Date: 08/20/23 04:30

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1817942-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	22.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 08/21/23 14:06
Analyst: MG

Extraction Method: EPA 3546
Extraction Date: 08/20/23 04:30

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1817942-1					
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	22.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	25.
2-Chlorophenol	ND		ug/kg	160	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	160	55.
2-Nitrophenol	ND		ug/kg	360	62.
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	800	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	80.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270E
 Analytical Date: 08/21/23 14:06
 Analyst: MG

Extraction Method: EPA 3546
 Extraction Date: 08/20/23 04:30

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatiles Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1817942-1					
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	58.
Benzaldehyde	ND		ug/kg	220	45.
Caprolactam	ND		ug/kg	160	50.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	94		25-120
Phenol-d6	97		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	113		30-120
2,4,6-Tribromophenol	119		10-136
4-Terphenyl-d14	119		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1817942-2 WG1817942-3								
Acenaphthene	72		87		31-137	19		50
Hexachlorobenzene	88		101		40-140	14		50
Bis(2-chloroethyl)ether	64		76		40-140	17		50
2-Chloronaphthalene	83		95		40-140	13		50
3,3'-Dichlorobenzidine	90		102		40-140	13		50
2,4-Dinitrotoluene	89		103		40-132	15		50
2,6-Dinitrotoluene	91		100		40-140	9		50
Fluoranthene	80		90		40-140	12		50
4-Chlorophenyl phenyl ether	82		96		40-140	16		50
4-Bromophenyl phenyl ether	85		98		40-140	14		50
Bis(2-chloroisopropyl)ether	62		76		40-140	20		50
Bis(2-chloroethoxy)methane	66		77		40-117	15		50
Hexachlorobutadiene	83		104		40-140	22		50
Hexachlorocyclopentadiene	92		110		40-140	18		50
Hexachloroethane	60		72		40-140	18		50
Isophorone	67		76		40-140	13		50
Naphthalene	72		88		40-140	20		50
Nitrobenzene	66		76		40-140	14		50
NDPA/DPA	80		92		36-157	14		50
n-Nitrosodi-n-propylamine	67		78		32-121	15		50
Bis(2-ethylhexyl)phthalate	81		96		40-140	17		50
Butyl benzyl phthalate	76		87		40-140	13		50
Di-n-butylphthalate	77		91		40-140	17		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1817942-2 WG1817942-3								
Di-n-octylphthalate	82		97		40-140	17		50
Diethyl phthalate	77		89		40-140	14		50
Dimethyl phthalate	84		93		40-140	10		50
Benzo(a)anthracene	81		95		40-140	16		50
Benzo(a)pyrene	83		107		40-140	25		50
Benzo(b)fluoranthene	75		93		40-140	21		50
Benzo(k)fluoranthene	76		100		40-140	27		50
Chrysene	79		95		40-140	18		50
Acenaphthylene	83		93		40-140	11		50
Anthracene	79		92		40-140	15		50
Benzo(ghi)perylene	82		103		40-140	23		50
Fluorene	78		92		40-140	16		50
Phenanthrene	77		91		40-140	17		50
Dibenzo(a,h)anthracene	84		105		40-140	22		50
Indeno(1,2,3-cd)pyrene	85		106		40-140	22		50
Pyrene	79		90		35-142	13		50
Biphenyl	86		97		37-127	12		50
4-Chloroaniline	63		73		40-140	15		50
2-Nitroaniline	95		106		47-134	11		50
3-Nitroaniline	81		91		26-129	12		50
4-Nitroaniline	83		94		41-125	12		50
Dibenzofuran	80		95		40-140	17		50
2-Methylnaphthalene	79		92		40-140	15		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1817942-2 WG1817942-3								
1,2,4,5-Tetrachlorobenzene	89		106		40-117	17		50
Acetophenone	72		85		14-144	17		50
2,4,6-Trichlorophenol	94		108		30-130	14		50
p-Chloro-m-cresol	74		82		26-103	10		50
2-Chlorophenol	75		87		25-102	15		50
2,4-Dichlorophenol	90		100		30-130	11		50
2,4-Dimethylphenol	73		81		30-130	10		50
2-Nitrophenol	87		103		30-130	17		50
4-Nitrophenol	70		80		11-114	13		50
2,4-Dinitrophenol	66		75		4-130	13		50
4,6-Dinitro-o-cresol	107		120		10-130	11		50
Pentachlorophenol	99		108		17-109	9		50
Phenol	74		82		26-90	10		50
2-Methylphenol	76		86		30-130.	12		50
3-Methylphenol/4-Methylphenol	75		86		30-130	14		50
2,4,5-Trichlorophenol	101		108		30-130	7		50
Carbazole	78		90		54-128	14		50
Atrazine	80		86		40-140	7		50
Benzaldehyde	103		126		40-140	20		50
Caprolactam	71		79		15-130	11		50
2,3,4,6-Tetrachlorophenol	91		103		40-140	12		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
-----------	-------------------------	-------------	--------------------------	-------------	----------------------------	------------	-------------	----------------------

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1817942-2 WG1817942-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	76		84		25-120
Phenol-d6	79		86		10-120
Nitrobenzene-d5	69		79		23-120
2-Fluorobiphenyl	90		98		30-120
2,4,6-Tribromophenol	108		119		10-136
4-Terphenyl-d14	83		91		18-120

INORGANICS & MISCELLANEOUS

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-01
Client ID: BREEZE-08172023
Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:35
Date Received: 08/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	78.0		%	0.010	0.010	1	-	08/28/23 08:43	1,9060A	SPP
General Chemistry - Westborough Lab										
Solids, Total	85.3		%	0.100	NA	1	-	08/18/23 13:45	121,2540G	ROI
Cyanide, Total	0.75	J	mg/kg	1.1	0.24	1	08/19/23 16:00	08/21/23 15:14	1,9010C/9012B	KEP
Nitrogen, Ammonia	9.1		mg/kg	8.3	3.1	1	08/20/23 10:40	08/20/23 17:22	121,4500NH3-BH	AVT



Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-02
Client ID: SS-BCP-24-02-08172023
Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:45
Date Received: 08/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.0		%	0.100	NA	1	-	08/18/23 13:45	121,2540G	ROI
Cyanide, Total	29		mg/kg	2.0	0.43	2	08/19/23 16:00	08/21/23 16:11	1,9010C/9012B	KEP
Nitrogen, Ammonia	9.9		mg/kg	8.0	3.0	1	08/20/23 10:40	08/20/23 17:25	121,4500NH3-BH	AVT



Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-03
Client ID: SS-BCP-24-04-08172023
Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:45
Date Received: 08/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	08/18/23 13:45	121,2540G	ROI
Cyanide, Total	53		mg/kg	5.3	1.1	5	08/19/23 16:00	08/21/23 16:13	1,9010C/9012B	KEP
Nitrogen, Ammonia	150		mg/kg	7.3	2.7	1	08/20/23 10:40	08/20/23 17:26	121,4500NH3-BH	AVT



Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

SAMPLE RESULTS

Lab ID: L2347700-04
Client ID: SS-BCP-24-06-08172023
Sample Location: 3875 RIVER ROAD

Date Collected: 08/17/23 11:48
Date Received: 08/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.9		%	0.100	NA	1	-	08/18/23 13:45	121,2540G	ROI
Cyanide, Total	25		mg/kg	2.0	0.43	2	08/19/23 16:00	08/21/23 16:14	1,9010C/9012B	KEP
Nitrogen, Ammonia	20		mg/kg	6.4	2.4	1	08/20/23 10:40	08/20/23 17:27	121,4500NH3-BH	AVT



Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

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): 01-02 Batch: WG1817873-1									
Cyanide, Total	ND	mg/kg	0.86	0.18	1	08/19/23 16:00	08/21/23 15:10	1,9010C/9012B	KEP
General Chemistry - Westborough Lab for sample(s): 03-04 Batch: WG1817875-1									
Cyanide, Total	ND	mg/kg	0.86	0.18	1	08/19/23 16:00	08/21/23 15:10	1,9010C/9012B	KEP
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1817932-1									
Nitrogen, Ammonia	ND	mg/kg	7.5	0.02	1	08/20/23 10:40	08/20/23 17:19	121,4500NH3-BH	AVT
Total Organic Carbon - Mansfield Lab for sample(s): 01 Batch: WG1820886-1									
Total Organic Carbon	ND	%	0.010	0.010	1	-	08/28/23 08:43	1,9060A	SPP

Lab Control Sample Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1817873-2 WG1817873-3								
Cyanide, Total	87		77	Q	80-120	15		35
General Chemistry - Westborough Lab Associated sample(s): 03-04 Batch: WG1817875-2 WG1817875-3								
Cyanide, Total	87		76	Q	80-120	15		35
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1817932-2								
Nitrogen, Ammonia	93		-		83-115	-		20
Total Organic Carbon - Mansfield Lab Associated sample(s): 01 Batch: WG1820886-2								
Total Organic Carbon	96		-		75-125	-		25

Matrix Spike Analysis Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

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): 01-02 QC Batch ID: WG1817873-4 WG1817873-5 QC Sample: L2347700-01 Client ID: BREEZE-08172023												
Cyanide, Total	0.75J	12	12	97		12	98		75-125	0		35
General Chemistry - Westborough Lab Associated sample(s): 03-04 QC Batch ID: WG1817875-4 WG1817875-5 QC Sample: L2347803-04 Client ID: MS Sample												
Cyanide, Total	ND	10	9.8	96		10	95		75-125	2		35
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1817932-4 QC Sample: L2347700-01 Client ID: BREEZE-08172023												
Nitrogen, Ammonia	9.1	390	350	88		-	-		55-144	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1817424-1 QC Sample: L2347609-01 Client ID: DUP Sample						
Solids, Total	88.3	88.6	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1817932-3 QC Sample: L2347700-01 Client ID: BREEZE-08172023						
Nitrogen, Ammonia	9.1	63	mg/kg	150	Q	20

Project Name: RITC**Lab Number:** L2347700**Project Number:** BENCH SCALE-TOC**Report Date:** 08/28/23**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(*)
L2347700-01A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),SB-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MN-TI(180),MG-TI(180),CA-TI(180),NA-TI(180),K-TI(180),CD-TI(180)
L2347700-01B	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2347700-01C	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		A2-TOC-9060(28)
L2347700-01D	Glass 250ml/8oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),NYTCL-8270(14),TS(7),NH3-4500(28)
L2347700-01E	Glass 250ml/8oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),NYTCL-8270(14),TS(7),NH3-4500(28)
L2347700-01X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2347700-01Y	Vial Water preserved split	A	NA		2.3	Y	Absent	18-AUG-23 13:49	NYTCL-8260-R2(14)
L2347700-01Z	Vial Water preserved split	A	NA		2.3	Y	Absent	18-AUG-23 13:49	NYTCL-8260-R2(14)
L2347700-02A	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),TS(7),NH3-4500(28)
L2347700-02B	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),TS(7),NH3-4500(28)
L2347700-03A	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),TS(7),NH3-4500(28)
L2347700-03B	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),TS(7),NH3-4500(28)
L2347700-04A	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),TS(7),NH3-4500(28)
L2347700-04B	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		TCN-9010(14),TS(7),NH3-4500(28)

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

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



Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

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.

Chlordane: 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.)

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'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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.

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

Report Format: DU Report with 'J' Qualifiers



Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- 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.
- 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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: RITC
Project Number: BENCH SCALE-TOC

Lab Number: L2347700
Report Date: 08/28/23

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 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 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 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).

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.

