2024 Annual Water Quality Report

Continental Cement CKD Monofill Landfill
Buffalo, Iowa
IDNR Landfill Permit Number 82-SDP-16-97P

Prepared for:
Continental Cement, LLC
301 East Front Street
Buffalo, Iowa 52728

Prepared by:
Blackstone Environmental, Inc.
16200 Foster Street
Overland Park, Kansas 66085

BLACKSTONE ENVIRONMENTAL

November 27, 2024

2024 ANNUAL WATER QUALITY REPORT
CONTINENTAL CEMENT CKD MONOFILL LANDFILL
BUFFALO, IOWA

Prepared for:
Continental Cement
301 East Front Street
Buffalo, Iowa 52728

Prepared by:

Kaley S. Muir
Environmental Chemist

Reviewed by:

Michael S. Kukuk, P.G.
President

Certification

Prepared by: _____ **Date: November 29, 2024**

Typed: **Michael S. Kukuk , P.G.**

Certification page (PE or ground water scientist signature) 113.10(1)"d"

For the purposes of this rule, a "qualified groundwater scientist" means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

EXECUTIVE SUMMARY

Period of Report Coverage

This Annual Water Quality Report (AWQR) provides the results from the March 2024 and September 2024 semi-annual groundwater monitoring events for the Continental Cement Company, LLC (Continental) Cement Kiln Dust (CKD) Monofill (Site). Semi-annual sample collection was conducted by Blackstone Environmental, Inc. (Blackstone) personnel on March 18 and 19, 2024 and on September 17, 2024. The stope well, MW-2CR, was sampled once on August 12, 2024 during a temporary shutdown of the kilns located at the neighboring Linwood facility.

The sampling and data analysis was conducted in general accordance with the requirements under Section 567 Chapter 115.26 of the Iowa Administrative Code (IAC) and the approved Revised Hydrologic Monitoring System Plan (HMSP) prepared by Blackstone and dated April 19, 2021.

Next Steps

Continental is currently implementing a CKD Water Quality Investigation approved by IDNR in October 2024. Data is being collected and Continental will have some results before year-end. In order to provide a more refined analysis of the site impacts, Continental plans to supplement this AWQR in the First Quarter of 2025 to include that information and will provide a more robust analysis at that time.

TABLE OF CONTENTS

Section **Page**

TABLES

FIGURES

APPENDICES

Acronyms/Abbreviations:

AWQR = Annual Water Quality Report
bgs = below ground surface
Blackstone = Blackstone Environmental, Inc.
°C = Celsius
Continental = Continental Cement Company, LLC.
CCV = Continuing Calibration Verification
CKD = Cement Kiln Dust
CLP = Contract Laboratory Program
DO = Dissolved Oxygen
Eurofins = Eurofins Scientific
GBZ = Groundwater Bearing Zone
GWPS = Groundwater Protection Standard
HMSP = Hydrologic Monitoring System Plan
IAC = Iowa Administrative Code
IDNR = Iowa Department of Natural Resources
LCS = Laboratory Control Samples
msl = mean sea level
MCL = USEPA Maximum Contaminant Level
mg/L = milligrams per Liter
MS = Matrix Spike
MSD = Matrix Spike Duplicate
NPDES = National Pollutant Discharge Elimination System
QC = Quality Control
PL = Prediction Limit
RL = Reporting Limit
RAMP = Remedial Action Mitigation Plan
RPD = Relative Percent Difference
SCADA = Supervisory Control and Data Acquisition
Site = CKD Monofill
SPLP = Synthetic Precipitation Leaching Procedure
SWS = IDNR Statewide Standard for a protected groundwater source
SSI = Statistically Significant Increase
TCLP = Toxic Characteristic Leaching Procedure
µg/L = micrograms per Liter
µmhos/cm = micromhos per centimeter
USEPA = United States Environmental Protection Agency

1.0 2024 GROUNDWATER SAMPLING

1.1 Groundwater Flow

Static groundwater levels were measured monthly, including during the March 2024 and September 2024 sampling events. The field data sheets included in Appendix A show the measured depth to groundwater and total depth (from the top of casing) collected during the sampling activities. The data was then converted to a groundwater elevation using the surveyed top of casing elevation. The measured depths to groundwater and groundwater elevations are summarized in Table 4.

1.2 Groundwater Quality Analysis – 2024 Summary

Inorganic constituents were detected at various concentrations during the March 2024 and September 2024 monitoring events. Groundwater data results were compared to the corresponding United States Environmental Protection Agency (USEPA) maximum contaminant levels (MCLs) and Iowa Statewide Standards (SWSs) for a protected groundwater source. EPA Primary MCLs are the highest level of a contaminant that is allowed in drinking water. Primary MCLs are enforceable drinking water standards. Iowa SWSs, for protected groundwater sources are calculated in a similar manner to MCLs and are secondary to any existing MCL for a constituent.

Of those constituents with MCLs promulgated by the USEPA or SWS for a protected groundwater source, the following were detected in excess of their respective standards during 2024:

Monitoring Point Constituent Exceedances

Parameter	MCL or SWS Level	Monitoring Points in Exceedance
Arsenic	0.01 mg/L (MCL)	MW-4, MW-4L, MW-11, MW-18, L-Sump, UL-2R
Boron	6.0 mg/L (SWS)	MW-4L
Cobalt	0.0021 mg/L (SWS)	MW-2CR, MW-15, MW-19, UL-2R, LL-2, UL-3R
Chromium	0.1 mg/L (MCL)	L-Sump
Lead	0.015 mg/L (MCL)	MW-2CR, LL-1, UL-2R, UL-3R
Lithium	0.014 mg/L (SWS)	MW-1A, MW-2A, MW-3L, MW-4, MW-4L, MW-5, MW-7, MW-12, MW-13, MW-14, MW-15, MW-16, MW-16L, MW-18, MW-19, MW-20, MW-21, L-Sump, Q-Sump, LL-1, UL-2R, LL-2, UL-3R, LL-3
Manganese	0.3 mg/L (SWS)	MW-12, MW-13, MW-15, MW-19, UL-2R, LL-2, UL-3R, LL-3
Molybdenum	0.04 mg/L (SWS)	MW-2CR, MW-4, MW-4L, MW-11, MW-14, MW-18, UL-2R, LL-3, L-Sump

Parameter	MCL or SWS Level	Monitoring Points in Exceedance
Nickel	0.1 mg/L (SWS)	MW-2CR
Nitrate	10 mg/L (MCL)	MW-2CR, Q-Sump
Nitrite	1.0 mg/L (MCL)	MW-2CR
Selenium	0.05 mg/L (MCL)	LL-1, UL-2R, L-Sump
Thallium	0.002 mg/L (MCL)	MW-2CR, LL-1, UL-2R, UL-3R
Vanadium	0.035 mg/L (SWS)	MW-2CR, L-Sump, UL-2R

Table 5 provides a summary of the groundwater analytical results from 2018 through present. A copy of the laboratory analytical results provided by Eurofins are located in Appendix B.

2.0 QUALITY ASSESSMENT / QUALITY CONTROL SUMMARY

2.1 Field Quality Assessment and Quality Control

2.1.1 Sample Collection

Samples were collected from the required monitoring wells with the following exceptions during the March 2024 event: monitoring well UL-1, MW-9, and MW-10 were dry.

Samples were collected from the required monitoring wells with the following exceptions during the September 2024 event: monitoring wells MW-1A, MW-9, MW-10, UL-1, and LL-2 were dry.

Groundwater samples were collected using HydraSleeve® groundwater samplers. Sample volume was retained for field measurements of pH, specific conductivity, and temperature. The procedures for obtaining groundwater samples, parameters analyzed, sample preservation, and handling were in accordance with the facility's HMSP. Geosyntec Consultants collected the sample for MW-2CR using a disposable bailer and in accordance with the facility's HMSP.

Lysimeters were sampled with a disposable bailer without purging prior to collecting a sample. Sample volume was retained for field measurements of pH, specific conductivity, and temperature. Field measurements were collected using an Oakton multiparameter probe calibrated according to the manufacturer's specifications. After sampling the lysimeters were purged. Water level measurements were taken after purging and purge volumes were noted on field data sheets entitled "Continental Cement Monitoring Point Sampling Log."

Field Data Sheets are included in Appendix A. Laboratory analytical reports and chain-of-custody documentation are included in Appendix B.

2.1.2 Sample Handling, Transport, and Custody Procedures

Sample containers were provided by the laboratory. Sample bottles for analyses requiring chemical preservation were provided pre-preserved by Eurofins. Sample labels were attached to each sample container at the time of collection. Information provided on the label included the project name, sample type, well number, preservation type, sampling date and time, and the sampler's name.

Immediately after collection, labeled sample containers were placed on ice in an insulated cooler and kept at approximately 4 °C under proper chain-of-custody procedures. The chain-of-custody was placed in a sealed bag and included in the cooler. The chain-of-custody record included the project name, technician's signature, sample locations, sampling date and time, type of sample, number of containers, analyses required, and pH and conductivity for each sample. Blackstone retained a copy of the chain-of-custody. The chain-of-custody is signed and dated upon arrival at the laboratory so that possession and handling of samples can be traced from the time of collection through laboratory analysis. Copies of chain-of-custody forms are included with the laboratory analytical reports in Appendix B.

2.1.3 Equipment Decontamination Procedures

Non-dedicated equipment (electronic water level indicator) used in the monitoring wells was thoroughly cleaned prior to use. Decontamination procedures were also conducted in the field after each well. After the water level was measured at each well, a paper towel soaked in Alconox® and distilled water was used to clean the tape and probe as it was removed from the well.

2.2 Laboratory Quality Assessment / Quality Control

Data quality documentation provided by Eurofins was reviewed for general conformance with guidelines established in *USEPA CLP National Functional Guidelines for Superfund Organic Methods Data Review*, 2020 and *USEPA CLP National Functional Guidelines for Superfund Inorganic Methods Data Review*, 2020. The data packages were not complete CLP packages; consequently, the following information was reviewed: holding times, surrogate recoveries, method blanks, trip blanks, rinsate blanks, field blanks, field duplicates, LCS, laboratory duplicate samples, MS/MSD samples, and CCV standards. On the basis of this review, the data was determined to be acceptable. Specific QC elements are discussed in more detail below.

March 2024

- Holding Times and Preservation – With the exception of the holding times of Nitrate and Nitrate as N, extractions and analyses were completed within the specified holding times

and pH ranges. Sample coolers were sent to the lab and were received at 0.5°C, 0.8°C, 0.9°C, and 5.2°C, which are below the recommended limit of 6°C.

- Analytical Reporting Limits – Analytical RLs met project requirements. Dilutions were necessary for chloride and sulfate in most samples as well as other analytes in multiple samples to bring analyses into instrument calibration range. All metal analytes and total phosphate in samples LL-3 also required dilutions to bring analyses into instrument calibration range.

- Method Blanks – No analytes were detected above laboratory reporting limits in the method blanks.

- LCS – LCS recoveries were within established control limits with the exception of bromate in analytical batch 666281 which was above established control limits indicating a high bias in sample results. Concentrations of bromate were below reporting limits in all sample results, therefore no corrective action was taken.

- MS/MSD – Sample L-Sump was used for site-specific MS/MSD for Method SM 2320B and General Chemistry. MS and MSD values were below established control limits indicating a potential low bias for thallium and total phosphorus in analytical batch 416520 results. As analytes were in established control limits for LCS, no corrective action was taken. Remaining site-specific MS/MSD results were within established control limits.

- Field Duplicates – A field duplicate was collected from MW-19 during the March 2024 sampling event. RPD for detected analytes were calculated between the primary and duplicate sample and the results are summarized in the table below. Calculated RPD values were below 20 percent for all analytes with the exception of cobalt (60.05%), copper (28.25%), nickel (50.61%), and phosphorus (48.15%). As these results are qualitative in nature, results are acceptable for the purposes of this evaluation.

Mar-24					
Parameter	**Units**	**Duplicate**	**MW-19**	**RPD (%)**	**OK?**
TDS	mg/L	396	394	0.34	YES
Nitrate	mg/L	NA	NA	NA	NA
Barium	mg/L	0.118	0.116	1.14	YES
Boron	mg/L	0.275	0.266	2.21	YES
Calcium	mg/L	91.4	91.2	0.15	YES
Chloride	mg/L	2.66	3.1	10.68	YES
Cobalt	ug/L	3.83	3.31	9.48	YES
Fluoride	mg/L	0.216	0.22	1.23	YES
Lithium	mg/L	0.0349	0.0348	0.19	YES
Magnesium	mg/L	41.2	36.4	8.08	YES
Manganese	mg/L	0.0519	0.0417	14.02	YES
Potassium	mg/L	4.38	4.61	3.44	YES
Sulfate	mg/L	31	31.8	1.71	YES
Nickel	mg/L	ND	ND	N/A	N/A
Sodium	mg/L	21.4	18.1	10.84	YES

September 2024

- Holding Times and Preservation – Extractions and analyses were completed within the specified holding times. Samples received by the laboratory were within specified pH ranges. Five sample coolers were sent to the lab and were received at 1.2°C, 2.7°C, 3.0°C, 5.1°C, and 3.4°C, which were below the recommended limit of 6°C.

- Analytical Reporting Limits – Analytical RLs met project requirements. Dilutions were necessary for many analytes in most samples to bring analyses into instrument calibration range.

- Method Blanks – Analytes were not detected above laboratory RLs in the method blanks.

- LCS – Initial Calibration Verification (ICV) was outside acceptance limits for silver LCS recoveries for method 6020B was above established control limits for MW-5 indicating a potential high bias in sample results. Sample results were below reporting limits for all samples; therefore, no corrective action was taken. Remaining LCS recoveries were within established control limits.

- MS/MSD – Sample MW-5 was used for site-specific MS/MSD for Method 365.1. MSD and RPD values were outside established control limits for phosphorus in MW-5 results. Sample MW-18 was used for site-specific MS/MSD for Methods 9056A and 6020B. MS and MSD values were outside established control limits indicating a potential bias for nitrate, calcium, magnesium, and silver in MW-18 results. Remaining site-specific

MS/MSD results were within established control limits. As analytes were in established control limits for LCS, no corrective action was taken.

- Field Duplicates – A field duplicate was unintentionally omitted during the September 2024 sampling event.

3.0 NEXT STEPS

On October 16, 2024, Continental submitted a Proposed Scope of Work for a CKD Water Quality Investigation, which IDNR approved on October 30, 2024. The proposed work includes the installation of six new monitoring wells, deployment of groundwater monitoring equipment, groundwater sampling, and soil sampling. Continental anticipates completing this work during the first two weeks of December 2024. Thereafter, it will collect groundwater samples from each monitoring point at the site.

Continental will submit a supplement to this Annual Water Quality Report in the First Quarter of 2025 that provides additional detail in accordance with the requirements of 567 IAC 115.26(8)"d" and Permit No. 82-SDP-16-97P. Because the data to be collected later this year will better inform the potential impact the site is having on groundwater and surface water quality, Continental will provide the required statistical analysis and plume maps as part of the supplement. The supplement will also include an update to the Groundwater Remedial Action Mitigation Plan (RAMP), as required by Permit Condition 4b.

4.0 LIMITATIONS

This report was prepared in accordance with that level of skill and care ordinarily exercised by other members of Blackstone's profession practicing in the same locality and under similar conditions when the services were provided. No warranties, express or implied, are intended or made.

TABLES

CONTINENTAL ANNUAL WATER QUALITY REPORT

Table 1A
Monitoring Program Summary - March 2024
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well ID	Location (Easting / Northing)	TOC Elevation	Total Depth	Screen Length (ft)	Current Monitoring Program	Constituents Exceeding MCL/SWS - March 2024	Total # of Samples in Each Monitoring Program Since January 1, 2018			
							Detection	Assessment	Corrective Action	Informational Purposes Only
Shallow Groundwater Bearing Zone (GBZ) Monitoring Wells										
MW-1B	2408909 / 546267.4	617.759	43.25	20	Detection	None	11			
MW-2A	2409895 / 545676.1	589.596	64.62	20	Detection	Lithium	11			
Deep Groundwater Bearing Zone (GBZ) Monitoring Wells										
MW-1A	2408901 / 546267.5	617.272	142.84	20	Assessment	Lithium		11		
MW-4	2408798 / 545106.5	490.901	34.52	NA	Assessment	Arsenic, Lithium, Molybdenum		11		
MW-5	2408744 / 545496.4	490.488	27.29	10	Assessment	Lithium		11		
MW-11	2409216 / 544852	533.597	110.35	20	Assessment	Arsenic, Molybdenum		11		
MW-12	2408546 / 545902.2	526.758	77.90	20	Assessment	Cobalt, Lithium, Manganese		11		
MW-13	2409208 / 544442.7	564.989	99.73	40	Assessment	Lithium, Maganese		10		
MW-14	2408613 / 544786.9	488.497	32.11	20	Assessment	Lithium, Molybdenum		11		
MW-15	2407821 / 543883.2	565.03	135.35	20	Assessment	Cobalt, Lithium		11		
MW-16	2408010 / 545084.8	483.558	66.26	20	Assessment	Lithium		11		
MW-18	2408823 / 545092.4	490.733	67.38	20	Assessment	Lithium, Molybdenum		11		
MW-3L	2410007 / 545144.4	570.355	152.67	10	Assessment	Lithium		11		
MW-4L	2408806 / 545112.6	490.527	61.30	10	Assessment	Arsenic, Lithium, Molybdenum		11		
MW-7	2409278 / 547324.6	598.23	185.40	13.5	Assessment	Lithium		11		
MW-16L	2408015 / 545093.8	483.22	115.83	20	Assessment	Lithium		11		
MW-19	2409193 / 546682.8	615.295	215.75	20	Assessment	Lithium, Manganese		11		
MW-20	2408421.5 / 544089.6	566.99	161.50	20	Assessment	Lithium		4		
MW-21	2409274.3 / 546551.5	613.86	222.50	20	Assessment	Lithium		4		
Other Monitoring Points										
MW-2CR*	2409765 / 545875.7	592.563	486.12		Stope Well	N/A				3
Leachate-Sump	2408957 / 545743.8	536.522			Leachate Sump	Chromium, Lithium, Selenium, Vanadium				10
Quarry-Sump	2407834 / 544450.5	485.636	443.42		Quarry Sump	Lithium				9
MW-9	2409452 / 545411.2	596.29	498.49		Leachate Monitoring	N/A				0
MW-10	2409664 / 545430.8	594.155	495.79		Leachate Monitoring	N/A				0
UL-1	2409014 / 545798.2	553.785	544.38		Leachate Monitoring	N/A				1
LL-1	2409020 / 545789.2	553.39	528.79		Leachate Monitoring	Lead, Lithium, Selenium				11
UL-2R	2408874 / 545928	542.305	535.15		Leachate Monitoring	Lithium, Manganese, Thallium, Vanadium				10
LL-2	2408869 / 545936	540.732	529.83		Leachate Monitoring	Cobalt, Lithium, Manganese				3
UL-3	2408805 / 546029.2	543.105	535.69		Leachate Monitoring	Cobalt, Manganese				5
LL-3	2408810 / 546021.1	541.198	530.47		Leachate Monitoring	N/A				1
MW-3	2410005 / 545114	569.372	101.30	20	Water Level Only	None (Water Level Only)				

Notes:
N/A - Not applicable - Annual Sampling Conducted in September 2023
NC - No Change
MCL - Maximum Contaminant Level
SWS - Statewide Standard
SSI - Statistically Significant Increase - Includes only confirmed SSIs
SSL - Statistically Significant Level
TOC - Top of casing
ft - feet
*MW-2CR was sampled May 8, 2023

Table 1B
Monitoring Program Summary - September 2024
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well ID	Location (Easting / Northing)	TOC Elevation	Total Depth	Screen Length (ft)	Current Monitoring Program	Constituents Exceeding MCL/SWS - September 2024	Total # of Samples in Each Monitoring Program Since January 1, 2018			
							Detection	Assessment	Corrective Action	Informational Purposes Only
Shallow Groundwater Bearing Zone (GBZ) Monitoring Wells										
MW-1B	2408909 / 546267.4	617.759	43.249	20	Detection		12			
MW-2A	2409895 / 545676.1	589.596	64.616	20	Detection		12			
Deep Groundwater Bearing Zone (GBZ) Monitoring Wells										
MW-1A	2408901 / 546267.5	617.272	142.842	20	Assessment	Lithium		12		
MW-4	2408798 / 545106.5	490.901	34.521	NA	Assessment	Arsenic, Molybdenum		12		
MW-5	2408744 / 545496.4	490.488	27.29	10	Assessment	Lithium		12		
MW-11	2409216 / 544852	533.597	110.347	20	Assessment	Arsenic, Molybdenum		12		
MW-12	2408546 / 545902.2	526.758	77.898	20	Assessment	Cobalt, Lithium, Manganese		12		
MW-13	2409208 / 544442.7	564.989	99.729	40	Assessment	Lithium, Manganese		11		
MW-14	2408613 / 544786.9	488.497	32.107	20	Assessment	Molybdenum		12		
MW-15	2407821 / 543883.2	565.03	135.35	20	Assessment	Cobalt, Lithium		12		
MW-16	2408010 / 545084.8	483.558	66.26	20	Assessment	Lithium		12		
MW-18	2408823 / 545092.4	490.733	67.383	20	Assessment	Arsenic, Molybdenum		12		
MW-3L	2410007 / 545144.4	570.355	152.67	10	Assessment	Lithium		12		
MW-4L	2408806 / 545112.6	490.527	61.297	10	Assessment	Molybdenum		12		
MW-7	2409278 / 547324.6	598.23	185.4	13.5	Assessment	Lithium		12		
MW-16L	2408015 / 545093.8	483.22	115.83	20	Assessment	Lithium		12		
MW-19	2409193 / 546682.8	615.295	215.745	20	Assessment	Lithium		12		
MW-20	2408421.5 / 544089.6	566.99	161.5	20	Assessment	Lithium		5		
MW-21	2409274.3 / 546551.5	613.86	222.5	20	Assessment	Lithium		5		
Other Monitoring Points										
MW-2CR	2409765 / 545875.7	592.563	486.12		Stope Well	Not Sampled in September 2024				3
Leachate-Sump	2408957 / 545743.8	536.522			Leachate Sump	Arsenic, Chromium, Cobalt, Manganese, Molybdeum, Lithium, Selenium, Vanadium				11
Quarry-Sump	2407834 / 544450.5	485.636	443.42		Quarry Sump	Lithium				10
MW-9	2409452 / 545411.2	596.29	498.49		Leachate Monitoring	None (Dry)				0
MW-10	2409664 / 545430.8	594.155	495.79		Leachate Monitoring	None (Dry)				0
UL-1	2409014 / 545798.2	553.785	544.38		Leachate Monitoring	None (Dry)				1
LL-1	2409020 / 545789.2	553.39	528.79		Leachate Monitoring	Lead, Lithium, Selenium, Thallium				12
UL-2R	2408874 / 545928	542.305	535.15		Leachate Monitoring	Arsenic, Cobalt, Manganese, Molybdenum, Selenium, Vanadium				11
LL-2	2408869 / 545936	540.732	529.83		Leachate Monitoring	Cobalt, Manganese				4
UL-3	2408805 / 546029.2	543.105	535.69		Leachate Monitoring	None (Dry)				5

LL-3	2408810 / 546021.1	541.198	530.47		Leachate Monitoring	Arsenic, Lithium, Manganese, Molybdenum				2
MW-3	2410005 / 545114	569.372	101.302	20	Water Level Only	None (Water Level Only)				

Notes:
N/A - Not applicable
NC - No Change
MCL - Maximum Contaminant Level
SWS - Statewide Standard
SSI - Statistically Significant Increase - Includes only Confirmed SSIs
SSL - Statistically Significant Level
TOC - Top of casing
ft - feet

BLACKSTONE ENVIRONMENTAL

Table 2
Monitoring Program Implementation Schedule
Continental Cement Monofill
Permit Number 82-SDP-16-97P

	Recent Sampling		Upcoming Sampling	
Well ID	**3/18/2024 & 3/19/2024**	**9/17/2024**	**3/2025**	**9/2025**
Shallow GBZ Monitoring Wells				
MW-1B	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-2A	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
Deep GBZ Monitoring Wells				
MW-1A	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-4	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-5	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-11	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-12	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-13	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-14	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-15	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-16	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-18	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-3L	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-4L	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-7	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-16L	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-19	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-20	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-21	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
Other Monitoring Points				
MW-2CR*	Indicators/Total Metals*	Indicators/Total Metals*	Indicators/Total Metals*	Indicators/Total Metals*
Leachate-Sump	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
Quarry-Sump	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
MW-9	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
MW-10	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
UL-1	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
LL-1	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
UL-2	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
LL-2	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
UL-3	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
LL-3	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals

Notes:
GBZ - Groundwater Bearing Zone
Indicator Parameters - bicarbonate alkalinity, carbonate alkalinity, bromate, calcium, chloride, fluoride, nitrate, nitrite, phosphorus total dissolved solids, and sulfate
Total Metals - aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, lithium magnesium, manganese, molybdenum, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc
*MW-2CR will be sampled pending Linwood shut-down due to IDLH conditions associated with the well
N/A - Annual Leachate Sampling Required

Table 3
Monitoring Well Maintenance and Performance Evaluation Schedule
Continental Cement Monofill
Permit Number 82-SDP-16-97P

	Monitoring Calendar Years	
Compliance	**2024**	**2025**
567 IAC 113.10*2)"f"(1) high and low water levels (monthly monitoring)	Completed	Scheduled
567 IAC 113.10*2)"f"(2) changes in the hydrologic setting and path	Completed	Scheduled
567 IAC 113.10*2)"f"(3) well depths	Completed	Scheduled
567 IAC 113.10*2)"f"(4) well recharge rates and chemistry	Completed*	Scheduled
567 IAC 113.10*2)"f"(1) waste separation from groundwater 113.6(2)"l"	Completed	Scheduled

Notes:
*well recharge rates were not estimated due to the use of HydroSleeve® sampling techniques

Table 4
Monitoring Well Maintenance and Performance Summary and Groundwater Elevations
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well	Top of Casing Elevation	Constructed Total Depth	Screen Interval Elevation		Date of Measurements	
					March 2024	September 2024
Shallow GBZ Monitoring Wells						
MW-1B	617.76	43.24	574.61-594.61	Groundwater Level	23.25	25.74
				Groundwater Elevation	594.51	592.02
				Measured Well Depth	NM	NM
				Submerged Screen	No	No
MW-2A	589.60	64.61	525.08-545.08	Groundwater Level	27.32	28.11
				Groundwater Elevation	562.28	561.49
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
Deep GBZ Monitoring Wells						
MW-1A	617.27	142.84	474.53-494.53	Groundwater Level	131.71	133.65
				Groundwater Elevation	485.56	483.62
				Measured Well Depth	NM	NM
				Submerged Screen	No	No
MW-3	596.37	101.30	468.17-488.17	Groundwater Level	90.52	NM
				Groundwater Elevation	505.85	--
				Measured Well Depth	NM	--
				Submerged Screen	Yes	--
MW-4	490.90	34.52	456.38-490.90	Groundwater Level	5.78	6.74
				Groundwater Elevation	485.12	484.16
				Measured Well Depth	NM	NM
				Submerged Screen	No	No
MW-5	490.49	27.29	463.30-473.30	Groundwater Level	3.16	5.45
				Groundwater Elevation	487.33	485.04
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-11	533.60	110.34	423.35-443.35	Groundwater Level	58.01	57.20
				Groundwater Elevation	475.59	476.40
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-12	526.76	77.89	448.96-468.96	Groundwater Level	49.63	50.83
				Groundwater Elevation	477.13	475.93
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-13	564.99	99.72	465.36-505.36	Groundwater Level	55.42	59.70
				Groundwater Elevation	509.57	505.29
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes

Well	Top of Casing Elevation	Constructed Total Depth	Screen Interval Elevation		Date of Measurements	
					March 2024	September 2024
MW-14	488.50	23.10	456.49-476.49	Groundwater Level	NM	12.45
				Groundwater Elevation	--	476.05
				Measured Well Depth	--	NM
				Submerged Screen	--	No
MW-15	565.03	135.35	429.78-449.78	Groundwater Level	62.75	66.87
				Groundwater Elevation	502.28	498.16
				Measured Well Depth	138.09	135.95
				Submerged Screen	Yes	Yes
MW-16	483.56	66.26	417.40-437.40	Groundwater Level	9.71	10.40
				Groundwater Elevation	473.85	473.16
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-18	490.73	67.38	423.45-443.45	Groundwater Level	7.68	8.62
				Groundwater Elevation	483.05	482.11
				Measured Well Depth	67.29	67.33
				Submerged Screen	Yes	Yes
MW-3L	570.36	152.67	418.79-438.79	Groundwater Level	91.74	95.10
				Groundwater Elevation	478.62	475.26
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-4L	490.53	61.59	429.33.-449.33	Groundwater Level	7.65	8.55
				Groundwater Elevation	482.88	481.98
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-7	598.23	185.40	412.83-426.33	Groundwater Level	123.09	120.74
				Groundwater Elevation	475.14	477.49
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-16L	483.22	115.83	367.49-387-49	Groundwater Level	7.93	6.60
				Groundwater Elevation	475.29	476.62
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-19	615.3	215.74	399.65-419.65	Groundwater Level	139.52	142.79
				Groundwater Elevation	475.78	472.51
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-20	566.99	167.60	404.50-424.50	Groundwater Level	88.04	86.85
				Groundwater Elevation	478.95	480.14
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
MW-21	613.86	225.80	391.40-411.4	Groundwater Level	138.40	141.23
				Groundwater Elevation	475.46	472.63
				Measured Well Depth	NM	NM
				Submerged Screen	Yes	Yes
Stope Monitoring Well						
**MW-2CR	592.56	106.44	--	Groundwater Level	NM	NM
				Groundwater Elevation	--	--
				Measured Well Depth	--	--
				Submerged Screen	--	--

Well	Top of Casing Elevation	Constructed Total Depth	Screen Interval Elevation		Date of Measurements	
					March 2024	September 2024
Leachate Monitoring Points						
MW-9	596.29	99.98		Groundwater Level	97.34	Dry
				Groundwater Elevation	498.95	Dry
				Measured Well Depth	NM	NM
				Submerged Screen		
MW-10	594.16	100.05		Groundwater Level	Dry	Dry
				Groundwater Elevation	Dry	Dry
				Measured Well Depth	NM	NM
				Submerged Screen		
UL-1	553.79	9.61		Groundwater Level	Dry	Dry
				Groundwater Elevation	Dry	Dry
				Measured Well Depth	NM	NM
				Submerged Screen		
*LL-1	553.39	24.60		Groundwater Level	20.81 / 23.13	21.32
				Groundwater Elevation	532.58 / 530.26	532.07
				Measured Well Depth	NM	NM
				Submerged Screen		
*UL-2R	542.31	10.16		Groundwater Level	9.46 / 9.55	7.47
				Groundwater Elevation	532.85 / 532.76	534.84
				Measured Well Depth	NM	NM
				Submerged Screen		
*LL-2	540.73	10.93		Groundwater Level	8.41 / 9.08	Dry
				Groundwater Elevation	532.32 / 531.65	Dry
				Measured Well Depth	NM	NM
				Submerged Screen		
*UL-3R	543.11	10.45		Groundwater Level	8.98 / 10.01	Dry
				Groundwater Elevation	534.13 / 533.10	Dry
				Measured Well Depth	NM	NM
				Submerged Screen		
LL-3	541.20	10.75		Groundwater Level	8.77 / 9.33	7.34
				Groundwater Elevation	532.43 / 531.87	533.86
				Measured Well Depth	NM	NM
				Submerged Screen		
Sump Monitoring Wells						
Leachate Sump	536.52	13.79		Groundwater Level	9.48	4.98
				Groundwater Elevation	527.04	531.54
				Measured Well Depth	NM	NM
				Submerged Screen		
Quarry Sump	485.64	---		Groundwater Level	29.75	30.50
				Groundwater Elevation	455.89	455.14
				Measured Well Depth	NM	NM
				Submerged Screen	n/a	n/a

Notes:

GBZ - Groundwater Bearing Zone

n/a - not applicable

NM - not monitored

*Leachate thickness greater than 1' - corrective action implemented. Line jetting was conducted in April and November 2024.

**MW-2CR was sampled 8/12/24 by Geosyntech, field data not provided

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
pH	3/12/2018	SU	7.5	7.5	7.4	-----	11.5	10.9	7.4	7.4	11	7.7	8.5	7.8	7.6	7.6
pH	9/4/2018	SU	-----	-----	7.2	-----	11.3	10.9	6.88	8	10.69	7.2	7.5	7.25	7.3	7.5
pH	3/18/2019	SU	7.43	7.5	7.31	-----	-----	10.62	7.5	7.4	10.67	8.5	7.5	7.45	7.3	7.68
pH	8/27/2019	SU	8.1	7.05	7.7	-----	13.2	12.8	7.6	7.6	10.6	7.8	6.9	8.1	7.9	7.9
pH	3/26/2020	SU	7.54	7.6	7.66	-----	10.03	10.73	7.05	7.23	9.93	7.39	9.89	7.41	7.14	7.26
pH	9/1/2020	SU	7.28	7.05	7.15	-----	12	11.28	7.01	7.95	10.84	7.45	8.08	7.7	7.54	7.41
pH	3/18/2021	SU	9.27	6.88	9.14	9.97	12.72	12.8	8.72	9.05	13.41	8.32	-----	9.13	8.77	8.88
pH	9/16/2021	SU	7.2	8.22	7.2	7.2	11	10.8	7.2	7.4	11.1	7.5	8.2	7.4	7.2	7.1
pH	10/8/2021	SU	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	3/15/2022	SU	6.78	6.87	7.01	7.23	11.36	10.83	6.97	7.47	11.11	7.16	7.47	7.48	7.28	7.13
pH	4/19/2022	SU	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	9/23/2022	SU	7.34	6.79	7.54	6.96	11.17	10.93	7.82	10.34	11.29	7.92	7.31	9.12	7.46	7.89
pH	3/20/2023	SU	7	6.53	6.95	6.72	11.19	10.88	6.38	7.28	11.08	7.04	6.99	7.29	6.98	6.8
pH	5/8/2023	SU	----	----	----	----	----	----	----	----	----	----	----	----	----	----
pH	9/26/2023	SU	6.96	6.88	6.82	7.02	10.46	10.22	6.56	10.26	10.75	7.15	7.08	7.42	6.95	6.93
pH	3/18/2024	SU	11.76	6.82	6.89	6.83	10.64	10.59	7.47	7.20	10.57	8.26	7.10	7.19	7.22	6.89
pH	9/17/2024	SU	Dry	5.98	1.84	6.18	10.20	10.29	7.01	8.81	9.52	6.12	5.08	6.76	6.51	6.65
Specific Conductivity	3/12/2018	umhos/cm	769 (n/a)	710 (n/a)	782 (n/a)	-----	18100 (n/a)	14660 (n/a)	2680 (n/a)	702 (n/a)	16170 (n/a)	1306 (n/a)	949 (n/a)	7510 (n/a)	797 (n/a)	1265 (n/a)
Specific Conductivity	9/4/2018	umhos/cm	-----	-----	3210 (n/a)	-----	14580 (n/a)	15450 (n/a)	1952 (n/a)	745 (n/a)	14360 (n/a)	1328 (n/a)	822 (n/a)	7320 (n/a)	799 (n/a)	1310 (n/a)
Specific Conductivity	3/18/2019	umhos/cm	749 (n/a)	1213 (n/a)	788 (n/a)	-----	13120 (n/a)	15050 (n/a)	2290 (n/a)	640 (n/a)	15180 (n/a)	1172 (n/a)	887 (n/a)	7430 (n/a)	689 (n/a)	1362 (n/a)
Specific Conductivity	8/27/2019	umhos/cm	650 (n/a)	1527 (n/a)	897 (n/a)	-----	14270 (n/a)	17210 (n/a)	2270 (n/a)	625 (n/a)	15850 (n/a)	1307 (n/a)	904 (n/a)	6920 (n/a)	673 (n/a)	1169 (n/a)
Specific Conductivity	3/26/2020	umhos/cm	753 (n/a)	1538 (n/a)	973 (n/a)	-----	16998 (n/a)	16322 (n/a)	3470 (n/a)	728 (n/a)	17317 (n/a)	1467 (n/a)	1209 (n/a)	7925 (n/a)	918 (n/a)	1574 (n/a)
Specific Conductivity	9/1/2020	umhos/cm	686 (n/a)	1168 (n/a)	878 (n/a)	-----	13030 (n/a)	12100 (n/a)	2770 (n/a)	532 (n/a)	12072 (n/a)	1113 (n/a)	870 (n/a)	5967 (n/a)	806 (n/a)	1263 (n/a)
Specific Conductivity	3/18/2021	umhos/cm	620 (1)	1350 (n/a)	740 (1)	610 (1)	11200 (1)	10800 (n/a)	2600 (n/a)	620 (1)	11900 (n/a)	1140 (n/a)	-----	470 (n/a)	990 (1)	1220 (1)
Specific Conductivity	9/16/2021	umhos/cm	678 (n/a)	1230 (n/a)	984 (n/a)	763 (n/a)	14320 (N/A)	16420 (n/a)	1139 (n/a)	710 (n/a)	15610 (n/a)	3100 (n/a)	2550 (n/a)	7880 (n/a)	931 (n/a)	1686 (n/a)
Specific Conductivity	10/8/2021	umhos/cm	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	3/15/2022	umhos/cm	728 (N/A)	1094 (N/A)	1052 (N/A)	7241 (N/A)	12550 (N/A)	14570 (N/A)	3708 (N/A)	683 (N/A)	13940 (N/A)	1200 (N/A)	2314 (N/A)	8076 (N/A)	899 (N/A)	1689 (N/A)
Specific Conductivity	4/19/2022	umhos/cm	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/23/2022	umhos/cm	1146 (N/A)	1288 (N/A)	29 (N/A)	1204 (N/A)	19447 (N/A)	22171 (N/A)	5990 (N/A)	758 (N/A)	19329 (N/A)	1962 (N/A)	1870 (N/A)	11467 (N/A)	1495 (N/A)	3162 (N/A)
Specific Conductivity	3/20/2023	umhos/cm	798 (N/A)	1372 (N/A)	1259 (N/A)	93 (N/A)	11850 (N/A)	16500 (N/A)	4405 (N/A)	747 (N/A)	14710 (N/A)	1286 (N/A)	1500 (N/A)	8394 (N/A)	1022 (N/A)	2155 (N/A)
Specific Conductivity	5/8/2023	umhos/cm	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/26/2023	umhos/cm	768	1069	1028	787	11450	15240	3282	674	12610	1287	1052	7641	850	2068
Specific Conductivity	3/18/2024	umhos/cm	694	1228	1022	709	9963	13160	3037	670	11380	2615	1103	7057	924	1886
Specific Conductivity	9/17/2024	umhos/cm	Dry	994	22135	718	9843	12953	2965	414	6014	1279	886	6803	904	1450
Alkalinity, Total	9/1/2020	mg/L	416 (n/a)	419 (n/a)	275 (n/a)	383 (n/a)	2300 (n/a)	1620 (n/a)	336 (n/a)	205 (n/a)	1320 (n/a)	351 (n/a)	146 (n/a)	237 (n/a)	394 (n/a)	335 (n/a)
Alkalinity, Total	9/16/2021	mg/L	390 (20)	417 (20)	271 (20)	359 (20)	1730 (100)	1230 (40)	337 (20)	368 (20)	1660 (100)	258 (20)	89 (20)	259 (20)	371 (20)	312 (20)
Alkalinity, Total	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	3/15/2022	mg/L	412 (10)	412 (10)	314 (10)	382 (10)	1920 (10)	1670 (10)	274 (10)	402 (10)	1830 (10)	343 (10)	206 (10)	245 (10)	392 (10)	323 (10)
Alkalinity, Total	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	9/23/2022	mg/L	418 (10)	454 (10)	309 (10)	209 (10)	1750 (25)	1430 (25)	386 (25)	154 (10)	1680 (25)	409 (10)	336 (10)	269 (10)	409 (10)	328 (10)
Alkalinity, Total	3/20/2023	mg/L	424 (5)	417 (5)	358 (5)	394 (5)	1640 (5)	1690 (5)	385 (5)	349 (5)	1670 (5)	365 (5)	365 (5)	268 (5)	409 (5)	331 (5)
Alkalinity, Total	5/8/2023	mg/L	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Alkalinity, Total	9/26/2023	mg/L	402 (5.00)	394 (5.00)	306 (5.00)	378 (5.00)	1460 (5.00)	1510 (5.00)	374 (5.00)	59.4 (5.00)	1450 (5.00)	357 (5.00)	363 (5.00)	279 (5.00)	386 (5.00)	322 (5.00)
Alkalinity, Total	3/18/2024	mg/L	388 (5.00)	392 (5.00)	328 (5.00)	356 (5.00)	1320 (5.00)	1420 (5.00)	331 (5.00)	365 (5.00)	1370 (5.00)	336 (5.00)	349 (5.00)	245 (5.00)	369 (5.00)	301 (5.00)
Alkalinity, Total	9/17/2024	mg/L	376 (5.00)	404 (5.00)	307 (5.00)	346 (5.00)	1220 (5.00)	1340 (5.00)	254 (5.00)	333 (5.00)	1280 (5.00)	328 (5.00)	329 (5.00)	255 (5.00)	367 (5.00)	290 (5.00)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Alkalinity, Bicarbonate	9/16/2021	mg/L	390 (20)	960 (1)	271 (20)	359 (20)	ND (100)	114 (40)	337 (20)	368 (20)	ND (100)	258 (20)	89.0 (20)	259 (20)	371 (20)	312 (20)
Alkalinity, Bicarbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	3/15/2022	mg/L	412 (10)	412 (10)	314 (10)	382 (10)	ND (10)	98.0 (10)	274 (10)		ND (10)	343 (10)	206 (10)	245 (10)	392 (10)	323 (10)
Alkalinity, Bicarbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/23/2022	mg/L	418 (10)	454 (10)	309 (10)	209 (10)	ND (25)	126 (25)	386 (25)	154 (10)	ND (25)	409 (10)	336 (10)	269 (10)	409 (10)	328 (10)
Alkalinity, Bicarbonate	3/20/2023	mg/L	424 (5)	417 (5)	358 (5)	394 (5)	ND (5)	115 (5)	385 (5)	349 (5)	67.5 (5)	365 (5)	365 (5)	268 (5)	409 (5)	331 (5)
Alkalinity, Bicarbonate	5/8/2023	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/26/2023	mg/L	402 (5.00)	394 (5.00)	306 (5.00)	378 (5.00)	56.5 (5.00)	124 (5.00)	374 (5.00)	59.4 (5.00)	53.1 (5.00)	357 (5.00)	363 (5.00)	279 (5.00)	386 (5.00)	322 (5.00)
Alkalinity, Bicarbonate	3/18/2024	mg/L	388 (5.00)	392 (5.00)	328 (5.00)	356 (5.00)	31.9 (5.00)	56.6 (5.00)	331 (5.00)	365 (5.00)	42.0 (5.00)	336 (5.00)	349 (5.00)	245 (5.00)	369 (5.00)	301 (5.00)
Alkalinity, Bicarbonate	9/17/2024	mg/L	376 (5.00)	404 (5.00)	307 (5.00)	346 (5.00)	64.3 (5.00)	116 (5.00)	254 (5.00)	333 (5.00)	82.1 (5.00)	328 (5.00)	329 (5.00)	255 (5.00)	367 (5.00)	290 (5.00)
Alkalinity, Carbonate	9/16/2021	mg/L	ND (20)	ND (5)	ND (20)	ND (20)	1340 (100)	1120 (40)	ND (20)	ND (20)	1580 (100)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)
Alkalinity, Carbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	3/15/2022	mg/L	ND (10)	ND (10)	ND (10)	ND (10)	1860 (10)	1570 (10)	ND (10)	ND (10)	1820 (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Alkalinity, Carbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	9/23/2022	mg/L	ND (10)	ND (10)	ND (10)	ND (10)	1590 (25)	1300 (25)	ND (25)	ND (10)	1680 (25)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	ND (5)	ND (5)	ND (5)	1630 (5)	1570 (5)	ND (5)	ND (5)	1600 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	ND (5)	ND (5)	ND (5)	1630 (5)	1570 (5)	ND (5)	ND (5)	1600 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Alkalinity, Carbonate	5/8/2023	mg/L														
Alkalinity, Carbonate	9/26/2023	mg/L	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	1410 (5.00)	1390 (5.00)	ND (5.00)	ND (5.00)	1400 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)
Alkalinity, Carbonate	3/18/2024	mg/L	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	1290 (5.00)	1370 (5.00)	ND (5.00)	ND (5.00)	1330 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)
Alkalinity, Carbonate	9/17/2024	mg/L	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	1150 (5.00)	1220 (5.00)	ND (5.00)	ND (5.00)	1200 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)
Bromate	3/18/2021	ug/L	ND (5)	1205 (n/a)	ND (500)	ND (500)	ND (100)	ND (500)	ND (500)	402 (10)	ND (500)	ND (500)	-----	ND (500)	ND (500)	ND (500)
Bromate	9/16/2021	ug/L	ND (10)	417 (20)	ND (10)	ND (5)	ND (100)	ND (100)	ND (10)	ND (5)	ND (100)	ND (10)	ND (10)	ND (20)	ND (10)	ND (5)
Bromate	10/8/2021	ug/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bromate	3/15/2022	ug/L	9.64 (5)	6.00 (5)	ND (5)	10.2 (5)	ND (50)	ND (50)	ND (5)	11.3 (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Bromate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bromate	9/23/2022	ug/L	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (500)	ND (500)	ND (5)	ND (500)	ND (5)	ND (5)	ND (500)	ND (5)	ND (5)
Bromate	3/20/2023	ug/L	ND (5)	ND (5)	ND (5)	ND (5)	ND (125)	ND (125)	ND (5)	ND (5)	ND (125)	ND (5)	11.7 (5)	ND (125)	ND (5)	ND (5)
Bromate	5/8/2023	ug/L														
Bromate	9/26/2023	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)
Bromate	3/18/2024	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)
Bromate	9/17/2024	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)
Aluminium	3/12/2018	mg/L	0.277 (n/a)	0.844 (n/a)	ND (0.05)	ND (0.05)	ND (5)	ND (5)	ND (0.05)	ND (0.05)	ND (5)	0.374 (n/a)	0.19 (n/a)	ND (2.5)	ND (0.05)	0.0818 (n/a)
Aluminium	9/4/2018	mg/L	0.137 (n/a)	0.423 (n/a)	ND (0.05)	ND (0.05)	ND (5)	ND (0.05)	ND (0.1)	0.517 (n/a)	ND (5)	0.367 (n/a)	2.08 (n/a)	ND (0.05)	0.526 (n/a)	ND (0.05)
Aluminium	3/18/2019	mg/L	ND (0.05)	2.96 (n/a)	0.112 (n/a)	ND (0.05)	ND (0.05)	ND (0.05)	1.44 (n/a)	0.0968 (n/a)	0.0355 (n/a)	0.142 (n/a)	0.324 (n/a)	ND (0.135)	ND (0.05)	0.0797 (n/a)
Aluminium	8/27/2019	mg/L	0.0965 (n/a)	0.214 (n/a)	ND (0.027)	ND (0.027)	0.0282 (n/a)	ND (0.027)	0.0377 (n/a)	0.0484 (n/a)	0.0364 (n/a)	0.295 (n/a)	1.09 (n/a)	0.166 (n/a)	0.0435 (n/a)	0.437 (n/a)
Aluminium	3/26/2020	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.5)	ND (0.2)	ND (0.2)	ND (0.05)	ND (0.05)	0.0569 (n/a)	4.04 (n/a)	ND (0.2)	0.0497 (n/a)	0.0595 (n/a)
Aluminium	9/1/2020	mg/L	ND (0.012)	ND (0.012)	ND (0.012)	ND (0.012)	ND (0.84)	0.0257 (n/a)	0.13 (n/a)	ND (0.012)	0.0128 (n/a)	0.0233 (n/a)	1.12 (n/a)	ND (0.06)	0.0296 (n/a)	0.0263 (n/a)
Aluminium	3/18/2021	mg/L	ND (0.075)	0.163 (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	0.112 (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	-----	ND (0.075)	0.158 (0.075)	0.0825 (0.075)
Aluminium	9/16/2021	mg/L	0.0886 (0.075)	0.195 (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	0.102 (0.075)	ND (0.075)	1.20 (0.075)	0.511 (0.075)	ND (0.075)	0.541 (0.075)	0.12 (0.075)
Aluminium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Aluminium	3/15/2022	mg/L	ND (0.05)	0.0627 (0.05)	0.0607 (0.05)	ND (0.05)	ND (0.5)	ND (0.5)	ND (0.2)	0.0951 (0.05)	ND (0.5)	ND (0.05)	0.114 (0.05)	ND (0.25)	ND (0.05)	ND (0.2)
Aluminium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Aluminium	9/23/2022	mg/L	ND (0.05)	ND (0.05)	0.0850 (0.05)	ND (0.05)	ND (0.35)	ND (0.35)	ND (0.2)	ND (0.05)	ND (0.35)	ND (0.05)	0.130 (0.05)	ND (0.35)	ND (0.05)	ND (0.35)
Aluminium	3/20/2023	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	0.0630 (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	0.0565 (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Aluminium	5/8/2023	mg/L														
Aluminium	9/26/2023	mg/L	0.0606 (0.0500)	0.0795 (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (5.00)	ND (0.0500)	0.111 (0.0500)	ND (0.0500)	0.258 (0.0500)	ND (0.200)
Aluminium	3/18/2024	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	------	-----	-----	-----
Aluminium	9/17/2024	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	------	-----	-----	-----

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Antimony	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Antimony	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.001)	ND (0.002)	ND (0.001)	ND (0.1)	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Antimony	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0025 (n/a)	ND (0.001)	ND (0.001)	0.00163 (n/a)	0.00134 (n/a)	ND (0.001)	ND (0.001)	ND (0.00053)	ND (0.001)	ND (0.001)
Antimony	8/27/2019	mg/L	0.000543 (n/a)	ND (0.00053)	ND (0.00053)	ND (0.00053)	0.00225 (n/a)	ND (0.00053)	ND (0.00053)	ND (0.00053)	0.00091 (n/a)	ND (0.00053)	ND (0.00053)	ND (0.00053)	ND (0.00053)	ND (0.00053)
Antimony	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)	0.000696 (n/a)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Antimony	9/1/2020	mg/L	ND (0.00051)	ND (0.00051)	ND (0.00051)	ND (0.00051)	0.00241 (n/a)	0.0012 (n/a)	ND (0.00051)	0.00168 (n/a)	0.00223 (n/a)	ND (0.00051)	0.000751 (n/a)	ND (0.00051)	ND (0.00051)	ND (0.00051)
Antimony	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	-----	ND (0.015)	ND (0.015)	ND (0.015)
Antimony	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Antimony	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Antimony	3/15/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.008)	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.01)	ND (0.002)	ND (0.008)
Antimony	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Antimony	9/23/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.14)	ND (0.014)	ND (0.008)	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.14)
Antimony	3/20/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.00275 (0.002)	ND (0.002)	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.002)
Antimony	5/8/2023	mg/L														
Antimony	9/26/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.008)	ND (0.008)	ND (0.008)	0.00336 (0.002)	ND (0.2)	ND (0.002)	ND (0.002)	ND (0.008)	ND (0.002)	ND (0.008)
Antimony	3/18/2024	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)
Antimony	9/17/2024	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.0900)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.100)	ND (0.00200)	ND (0.00200)	ND (0.0500)	ND (0.00200)	ND (0.0600)
Arsenic	3/12/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.2)	ND (0.2)	ND (0.002)	ND (0.002)	ND (0.2)	ND (0.008)	ND (0.002)	ND (0.1)	ND (0.002)	ND (0.002)
Arsenic	9/4/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.2)	ND (0.2)	0.00227 (n/a)	ND (0.002)	ND (0.2)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Arsenic	3/18/2019	mg/L	ND (0.002)	0.00707 (n/a)	ND (0.002)	ND (0.002)	0.0764 (n/a)	0.00913 (n/a)	0.00542 (n/a)	ND (0.002)	0.0375 (n/a)	0.00227 (n/a)	ND (0.002)	ND (0.00075)	ND (0.002)	ND (0.002)
Arsenic	8/27/2019	mg/L	ND (0.00075)	0.00132 (n/a)	ND (0.00075)	ND (0.00075)	0.104 (n/a)	0.00997 (n/a)	0.00154 (n/a)	ND (0.00075)	0.0469 (n/a)	ND (0.003)	0.0013 (n/a)	ND (0.00075)	ND (0.00075)	ND (0.00075)
Arsenic	3/26/2020	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0871 (n/a)	0.0268 (n/a)	ND (0.008)	ND (0.002)	0.0461 (n/a)	ND (0.002)	ND (0.008)	ND (0.008)	ND (0.002)	ND (0.002)
Arsenic	9/1/2020	mg/L	ND (0.00088)	ND (0.00088)	ND (0.00088)	ND (0.00088)	0.114 (n/a)	0.034 (n/a)	0.000942 (n/a)	ND (0.00088)	0.0662 (n/a)	ND (0.00088)	0.00226 (n/a)	ND (0.00088)	ND (0.00088)	ND (0.00088)
Arsenic	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.118 (0.01)	0.0266 (0.01)	ND (0.01)	ND (0.01)	0.0639 (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Arsenic	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0857 (0.01)	0.0319 (0.01)	0.012 (0.01)	ND (0.01)	0.055 (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	ND (0.01)
Arsenic	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arsenic	3/15/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0491 (0.02)	0.0247 (0.02)	ND (0.008)	ND (0.002)	0.0429 (0.02)	ND (0.002)	ND (0.002)	ND (0.01)	ND (0.002)	ND (0.008)
Arsenic	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arsenic	9/23/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0553 (0.002)	0.0168 (0.002)	ND (0.008)	ND (0.002)	0.0454 (0.02)	ND (0.002)	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.014)
Arsenic	3/20/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0429 (0.002)	0.00898 (0.002)	ND (0.002)	ND (0.002)	0.0246 (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Arsenic	5/8/2023	mg/L														
Arsenic	9/26/2023	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.0358 (0.00200)	0.00884 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.00201 (0.00200)	ND (0.00800)
Arsenic	3/18/2024	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.0312 (0.00200)	0.0102 (0.00200)	ND (0.00200)	ND (0.00200)	0.0229 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)
Arsenic	9/17/2024	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.0279 (0.00200)	0.00832 (0.00200)	ND (0.00200)	ND (0.00200)	0.0211 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.00291 (0.00200)	ND (0.00200)
Barium	3/12/2018	mg/L	0.135 (n/a)	0.147 (n/a)	0.0459 (n/a)	0.0633 (n/a)	ND (0.2)	ND (0.2)	0.03 (n/a)	0.126 (n/a)	ND (0.2)	0.144 (n/a)	0.0891 (n/a)	ND (0.1)	0.0617 (n/a)	0.0694 (n/a)
Barium	9/4/2018	mg/L	0.13 (n/a)	0.0978 (n/a)	0.0548 (n/a)	0.0642 (n/a)	ND (0.2)	ND (0.2)	0.0255 (n/a)	0.145 (n/a)	ND (0.2)	0.129 (n/a)	0.136 (n/a)	ND (0.1)	0.0691 (n/a)	0.714 (n/a)
Barium	3/18/2019	mg/L	0.138 (n/a)	0.528 (n/a)	0.059 (n/a)	0.0671 (n/a)	0.0118 (n/a)	0.0152 (n/a)	0.0647 (n/a)	0.105 (n/a)	0.0151 (n/a)	0.0867 (n/a)	0.0964 (n/a)	0.0423 (n/a)	0.0666 (n/a)	0.0738 (n/a)
Barium	8/27/2019	mg/L	0.127 (n/a)	0.0523 (n/a)	0.0526 (n/a)	0.0663 (n/a)	0.013 (n/a)	0.0137 (n/a)	0.0401 (n/a)	0.149 (n/a)	0.0123 (n/a)	0.0819 (n/a)	0.104 (n/a)	0.0501 (n/a)	0.0622 (n/a)	0.077 (n/a)
Barium	3/26/2020	mg/L	0.109 (n/a)	0.0647 (n/a)	0.0569 (n/a)	0.0568 (n/a)	ND (0.02)	0.0123 (n/a)	0.0445 (n/a)	0.156 (n/a)	0.0155 (n/a)	0.0789 (n/a)	0.118 (n/a)	0.0401 (n/a)	0.0624 (n/a)	0.0729 (n/a)
Barium	9/1/2020	mg/L	0.124 (n/a)	0.0576 (n/a)	0.0531 (n/a)	0.0555 (n/a)	0.0112 (n/a)	0.0133 (n/a)	0.0415 (n/a)	0.089 (n/a)	0.0143 (n/a)	0.0796 (n/a)	0.053 (n/a)	0.0396 (n/a)	0.065 (n/a)	0.0713 (n/a)
Barium	3/18/2021	mg/L	0.122 (0.005)	0.0856 (0.005)	0.066 (0.005)	0.0647 (0.005)	0.0071 (0.005)	0.0142 (0.005)	0.0335 (0.005)	0.157 (0.005)	0.0147 (0.005)	0.0796 (0.005)	-----	0.0454 (0.005)	0.0658 (0.005)	0.0688 (0.005)
Barium	9/16/2021	mg/L	0.116 (0.005)	0.0651 (0.005)	0.0473 (0.005)	0.0642 (0.005)	0.0064 (0.005)	0.0146 (0.005)	0.08 (0.005)	0.147 (0.005)	0.0145 (0.005)	0.0363 (0.005)	0.0436 (0.005)	0.0432 (0.005)	0.0706 (0.005)	0.0671 (0.005)
Barium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Barium	3/15/2022	mg/L	0.120 (0.002)	0.0573 (0.002)	0.0670 (0.002)	0.0689 (0.002)	ND (0.002)	ND (0.02)	0.357 (0.008)	0.161 (0.002)	ND (0.02)	0.0817 (0.002)	0.0617 (0.002)	0.0490 (0.01)	0.0633 (0.002)	0.0633 (0.008)
Barium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Barium	9/23/2022	mg/L	0.117 (0.002)	0.0585 (0.002)	0.0480 (0.002)	0.0665 (0.002)	ND (0.014)	0.0172 (0.014)	0.0426 (0.008)	0.138 (0.002)	0.0185 (0.014)	0.0810 (0.002)	0.0813 (0.002)	0.0519 (0.014)	0.0635 (0.002)	0.0726 (0.14)
Barium	3/20/2023	mg/L	0.122 (0.002)	0.0713 (0.002)	0.0587 (0.002)	0.0740 (0.002)	0.00723 (0.002)	0.0130 (0.002)	0.0363 (0.002)	0.0936 (0.002)	0.0132 (0.002)	0.0688 (0.002)	0.0784 (0.002)	0.0387 (0.002)	0.0552 (0.002)	0.0594 (0.002)
Barium	5/8/2023	mg/L														
Barium	9/26/2023	mg/L	0.115 (0.00200)	0.0491 (0.00200)	0.0545 (0.00200)	0.0679 (0.00200)	0.00888 (0.00200)	0.0138 (0.00200)	0.0338 (0.00200)	0.0828 (0.00200)	ND (0.200)	0.0728	0.0828 (0.00200)	0.0375 (0.00200)	0.0614 (0.00200)	0.0587 (0.00800)
Barium	3/18/2024	mg/L	0.130 (0.00200)	0.0736 (0.00200)	0.0635 (0.00200)	0.0733 (0.00200)	0.00778 (0.00200)	0.0151 (0.00200)	0.0308 (0.00200)	0.159 (0.00200)	ND (0.200)	0.0793 (0.00200)	0.0869 (0.00200)	0.0367 (0.00200)	0.0567 (0.00200)	0.0589 (0.00200)
Barium	9/17/2024	mg/L	0.130 (0.00200)	0.0571 (0.00200)	0.0545 (0.00200)	0.0715 (0.00200)	0.00927 (0.00200)	0.0129 (0.00200)	0.0289 (0.00200)	0.138 (0.00200)	0.0139 (0.00200)	0.0777 (0.00200)	0.0888 (0.00200)	0.0425 (0.00200)	0.0851 (0.00200)	0.0587 (0.00200)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Beryllium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Beryllium	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.00135)	ND (0.001)	ND (0.001)
Beryllium	8/27/2019	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00108)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Beryllium	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Beryllium	9/1/2020	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Beryllium	3/18/2021	mg/L	ND (0.001)	0.0016 (0.001)	ND (0.001)	0.0022 (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.001 (0.001)	ND (0.001)	0.0016 (0.001)	-----	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	9/16/2021	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Beryllium	3/15/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.01)	ND (0.004)	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.004)
Beryllium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Beryllium	9/23/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.007)	ND (0.004)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.007)
Beryllium	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)
Beryllium	5/8/2023	mg/L														
Beryllium	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.100)	ND (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00400)
Beryllium	3/18/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)
Beryllium	9/17/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.0450)	ND (0.0630)	ND (0.00100)	ND (0.00100)	ND (0.0500)	ND (0.00100)	ND (0.00100)	ND (0.0250)	ND (0.00100)	ND (0.0300)
Boron	3/12/2018	mg/L	1.22 (n/a)	ND (0.2)	ND (0.2)	0.229 (n/a)	ND (20)	ND (20)	ND (0.2)	ND (0.2)	ND (20)	ND (0.8)	0.41 (n/a)	ND (10)	0.94 (n/a)	0.496 (n/a)
Boron	9/4/2018	mg/L	1.35 (n/a)	ND (0.2)	ND (0.2)	0.231 (n/a)	ND (20)	ND (20)	ND (0.2)	ND (0.2)	ND (20)	0.70 (n/a)	0.476 (n/a)	ND (10)	1.04 (n/a)	ND (0.2)
Boron	3/18/2019	mg/L	1.12 (n/a)	ND (0.2)	ND (0.2)	0.231 (n/a)	0.267 (n/a)	0.336 (n/a)	ND (0.2)	ND (0.2)	0.259 (n/a)	0.625 (n/a)	0.383 (n/a)	ND (0.55)	0.902 (n/a)	0.419 (n/a)
Boron	8/27/2019	mg/L	1.14 (n/a)	ND (0.11)	0.148 (n/a)	0.238 (n/a)	0.271 (n/a)	0.292 (n/a)	0.208 (n/a)	0.184 (n/a)	0.25 (n/a)	0.639 (n/a)	0.428 (n/a)	0.239 (n/a)	0.772 (n/a)	0.477 (n/a)
Boron	3/26/2020	mg/L	1.05 (n/a)	ND (0.2)	ND (0.2)	0.228 (n/a)	ND (2)	0.411 (n/a)	ND (0.8)	0.202 (n/a)	0.36 (n/a)	0.592 (n/a)	ND (0.8)	ND (0.8)	0.917 (n/a)	0.427 (n/a)
Boron	9/1/2020	mg/L	1.22 (n/a)	ND (0.32)	0.108 (n/a)	0.206 (n/a)	ND (0.56)	ND (0.56)	ND (0.32)	0.131 (n/a)	ND (1.6)	0.712 (n/a)	0.204 (n/a)	ND (0.4)	0.942 (n/a)	0.46 (n/a)
Boron	3/18/2021	mg/L	1.2 (0.1)	0.107 (0.1)	ND (0.1)	0.243 (0.1)	0.307 (0.1)	0.398 (0.1)	0.238 (0.1)	0.196 (0.1)	0.349 (0.1)	0.712 (0.1)	-----	0.275 (0.1)	0.986 (0.1)	0.428 (0.1)
Boron	9/16/2021	mg/L	1.05 (0.1)	ND (0.1)	ND (0.1)	0.219 (0.1)	0.28 (0.1)	0.416 (0.1)	0.688 (0.1)	0.173 (0.1)	0.32 (0.1)	0.264 (0.1)	0.126 (0.1)	0.278 (0.1)	0.883 (0.1)	0.403 (0.1)
Boron	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Boron	3/15/2022	mg/L	1.20 (0.1)	ND (0.1)	0.105 (0.1)	0.242 (0.1)	ND (1)	ND (1)	ND (0.4)	0.194 (0.01)	ND (1)	0.744 (0.1)	0.251 (0.1)	ND (0.5)	0.966 (0.1)	0.416 (0.4)
Boron	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Boron	9/23/2022	mg/L	1.11 (0.1)	0.110 (0.1)	ND (0.1)	0.218 (0.1)	ND (0.7)	ND (0.7)	ND (0.4)	0.183 (0.1)	ND (0.7)	0.813 (0.1)	0.419 (0.1)	ND (0.7)	0.954 (0.1)	ND (0.7)
Boron	3/20/2023	mg/L	1.20 (0.1)	0.174 (0.1)	0.113 (0.1)	0.241 (0.1)	0.212 (0.1)	0.239 (0.1)	0.179 (0.1)	0.101 (0.1)	0.198 (0.1)	0.638 (0.1)	0.362 (0.1)	0.201 (0.1)	0.767 (0.1)	0.397 (0.1)
Boron	5/8/2023	mg/L														
Boron	9/26/2023	mg/L	1.22 (0.100)	0.110 (0.100)	0.108 (0.100)	0.256 (0.100)	ND (0.400)	ND (0.400)	ND (0.400)	0.100 (0.100)	ND (10.0)	0.861 (0.100)	0.424 (0.100)	ND (0.400)	0.988 (0.100)	0.456 (0.400)
Boron	3/18/2024	mg/L	1.30 (0.00200)	ND (0.100)	ND (0.100)	0.230 (0.100)	0.295 (0.100)	0.403 (0.400)	0.178 (0.100)	0.205 (0.100)	ND (10.0)	0.884 (0.100)	0.455 (0.100)	0.264 (0.100)	0.936 (0.100)	0.412 (0.100)
Boron	9/17/2024	mg/L	1.09 (0.100)	ND (0.100)	ND (0.100)	0.202 (0.100)	0.250 (0.100)	317 (0.100)	0.182 (0.100)	0.154 (0.100)	0.278 (0.100)	0.870 (0.100)	0.455 (0.100)	0.296 (0.100)	1.01 (0.100)	0.374 (0.100)
Cadmium	3/12/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.002)	ND (0.0005)	ND (0.025)	ND (0.0005)	ND (0.0005)
Cadmium	9/4/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)
Cadmium	3/18/2019	mg/L	ND (0.0005)	ND (0.000723)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.00077)	0.000721 (n/a)	ND (0.0005)	ND (0.000138)	ND (0.0005)	ND (0.0005)
Cadmium	8/27/2019	mg/L	0.00006 (n/a)	0.000148 (n/a)	ND (0.000039)	0.000084 (n/a)	0.00043 (n/a)	0.000101 (n/a)	ND (0.000039)	0.000082 (n/a)	ND (n/a)	0.000729 (n/a)	0.0001 (n/a)	0.000281 (n/a)	ND (0.000039)	ND (0.000039)
Cadmium	3/26/2020	mg/L	ND (0.0001)	ND (0.0001)	0.000098 (n/a)	0.000111 (n/a)	ND (0.001)	ND (0.0004)	ND (0.0004)	ND (0.0001)	ND (0.0001)	0.000373 (n/a)	0.000492 (n/a)	ND (0.0004)	0.000118 (n/a)	ND (0.0001)
Cadmium	9/1/2020	mg/L	ND (0.000049)	0.000055 (n/a)	ND (0.000049)	0.000476 (n/a)	0.000145 (n/a)	0.000132 (n/a)	ND (0.000049)	ND (0.000049)	0.0002 (n/a)	0.000137 (n/a)	0.000214 (n/a)	0.000091 (n/a)	0.00008 (n/a)	0.000059 (n/a)
Cadmium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-----	ND (0.005)	ND (0.005)	ND (0.005)
Cadmium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cadmium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cadmium	3/15/2022	mg/L	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.0004)	ND (0.0001)	ND (0.001)	ND (0.0001)	ND (0.0001)	ND (0.0005)	ND (0.0001)	ND (0.0004)
Cadmium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cadmium	9/23/2022	mg/L	ND (0.0001)	ND (0.0001)	ND (0.0001)	0.000112 (0.0001)	ND (0.0007)	ND (0.0007)	ND (0.0004)	0.000334 (0.001)	ND (0.0007)	ND (0.0001)	ND (0.0001)	ND (0.0007)	ND (0.0001)	ND (0.0007)
Cadmium	3/20/2023	mg/L	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0004)	ND (0.0004)	ND (0.0001)	ND (0.0001)	ND (0.004)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)
Cadmium	5/8/2023	mg/L														
Cadmium	9/26/2023	mg/L	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	0.000217 (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0008)
Cadmium	3/18/2024	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	------	------	-----
Cadmium	9/17/2024	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	------	------	-----

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Calcium	3/12/2018	mg/L	69.2 (n/a)	175 (n/a)	100 (n/a)	91.4 (n/a)	ND (20)	ND (20)	334 (n/a)	74.9 (n/a)	ND (20)	176 (n/a)	92.3 (n/a)	246 (n/a)	73.8 (n/a)	123 (n/a)
Calcium	9/4/2018	mg/L	66.6 (n/a)	196 (n/a)	119 (n/a)	92.1 (n/a)	ND (20)	ND (20)	272 (n/a)	78.3 (n/a)	ND (20)	163 (n/a)	370 (n/a)	267 (n/a)	87.9 (n/a)	225 (n/a)
Calcium	3/18/2019	mg/L	65.9 (n/a)	340 (n/a)	118 (n/a)	94.3 (n/a)	1.20 (n/a)	1.16 (n/a)	378 (n/a)	71.2 (n/a)	3.26 (n/a)	164 (n/a)	111 (n/a)	216 (n/a)	80.5 (n/a)	126 (n/a)
Calcium	8/27/2019	mg/L	71.0 (n/a)	197 (n/a)	119 (n/a)	96.6 (n/a)	3.08 (n/a)	3.03 (n/a)	374 (n/a)	85.1 (n/a)	5.30 (n/a)	238 (n/a)	179 (n/a)	234 (n/a)	75.6 (n/a)	136 (n/a)
Calcium	3/26/2020	mg/L	55.5 (n/a)	171 (n/a)	131 (n/a)	81.8 (n/a)	ND (5)	1.08 (n/a)	472 (n/a)	81.6 (n/a)	3.73 (n/a)	138 (n/a)	473 (n/a)	231 (n/a)	73.4 (n/a)	146 (n/a)
Calcium	9/1/2020	mg/L	63.9 (n/a)	192 (n/a)	118 (n/a)	74.9 (n/a)	1.41 (n/a)	2.3 (n/a)	514 (n/a)	56.7 (n/a)	4.05 (n/a)	133 (n/a)	125 (n/a)	287 (n/a)	82.9 (n/a)	139 (n/a)
Calcium	3/18/2021	mg/L	64.0 (0.2)	196 (0.2)	146 (0.2)	87.3 (0.2)	1.61 (0.2)	1.62 (0.2)	317 (0.2)	77.8 (0.2)	2.46 (0.2)	115 (0.2)	-----	199 (0.2)	94.3 (0.2)	146 (0.2)
Calcium	9/16/2021	mg/L	57.4 (0.2)	171 (0.2)	107 (0.2)	85.1 (0.2)	1.50 (0.2)	1.60 (0.2)	112 (0.2)	73.2 (0.2)	1.40 (0.2)	356 (0.2)	55.7 (0.2)	193 (0.2)	84.5 (0.2)	143 (0.2)
Calcium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Calcium	3/15/2022	mg/L	69.2 (0.5)	178 (0.5)	166 (0.5)	97.5 (0.5)	ND (5)	5.69 (5)	490 (2)	86.2 (0.5)	ND (5)	125 (0.5)	101 (0.5)	260 (2.5)	102 (0.5)	149 (2)
Calcium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Calcium	9/23/2022	mg/L	59.4 (0.5)	145 (0.5)	111 (0.5)	93.4 (0.5)	ND (3.5)	ND (3.5)	477 (2)	70.7 (0.5)	ND (3.5)	118 (0.5)	86.7 (0.5)	266 (3.5)	90 (0.5)	187 (3.5)
Calcium	3/20/2023	mg/L	69.3 (0.5)	196 (0.5)	149 (0.5)	103 (0.5)	2.59 (0.5)	1.21 (0.5)	487 (5)	53.1 (0.5)	1.43 (0.5)	108 (0.5)	80.3 (0.5)	205 (0.5)	88.7 (0.5)	162 (0.5)
Calcium	5/8/2023	mg/L														
Calcium	9/26/2023	mg/L	67.5 (0.500)	140 (0.500)	135 (0.500)	104 (0.500)	2.85 (2.00)	ND (2.00)	392 (2.00)	51.4 (0.500)	ND (50.0)	111 (0.500)	90.3 (0.500)	211 (2.00)	111 (0.500)	161 (2.00)
Calcium	3/18/2024	mg/L	64.7 (0.500)	218 (0.500)	158 (0.500)	103 (0.500)	-----	ND (50.0)	371 (2.00)	81.3 (0.500)	ND (50.0)	112 (0.500)	92.9 (0.500)	218 (0.500)	97.0 (0.500)	170 (0.500)
Calcium	9/17/2024	mg/L	73.3 (0.500)	171 (0.500)	148 (0.500)	92.0 (0.500)	2.57 (0.500)	1.73 (0.500)	415 (0.500)	84.8 (0.500)	1.71 (0.500)	130 (0.500)	115 (0.500)	233 (0.500)	148 (0.500)	186 (0.500)
Chloride	3/12/2018	mg/L	ND (5)	13.4 (n/a)	41.5 (n/a)	19.0 (n/a)	2030 (n/a)	1620 (n/a)	152 (n/a)	ND (5)	1910 (n/a)	112 (n/a)	56.7 (n/a)	456 (n/a)	9.13 (n/a)	53.5 (n/a)
Chloride	9/4/2018	mg/L	2.16 (n/a)	13.1 (n/a)	37.7 (n/a)	11.0 (n/a)	1470 (n/a)	1660 (n/a)	93.3 (n/a)	ND (1)	1660 (n/a)	115 (n/a)	45.4 (n/a)	464 (n/a)	14.3 (n/a)	32.3 (n/a)
Chloride	3/18/2019	mg/L	2.47 (n/a)	14.2 (n/a)	29.6 (n/a)	13.0 (n/a)	1660 (n/a)	1590 (n/a)	184 (n/a)	4.15 (n/a)	1730 (n/a)	109 (n/a)	83.5 (n/a)	471 (n/a)	9.83 (n/a)	56.9 (n/a)
Chloride	8/27/2019	mg/L	2.74 (n/a)	10.1 (n/a)	33.7 (n/a)	12.4 (n/a)	1760 (n/a)	1620 (n/a)	213 (n/a)	1.43 (n/a)	1690 (n/a)	120 (n/a)	35.6 (n/a)	473 (n/a)	8.11 (n/a)	65.0 (n/a)
Chloride	3/26/2020	mg/L	2.67 (n/a)	12.3 (n/a)	34.2 (n/a)	11.1 (n/a)	1730 (n/a)	1580 (n/a)	427 (n/a)	5.35 (n/a)	1790 (n/a)	132 (n/a)	379 (n/a)	496 (n/a)	11.6 (n/a)	80.5 (n/a)
Chloride	9/1/2020	mg/L	2.14 (n/a)	10.2 (n/a)	20.8 (n/a)	9.80 (n/a)	1590 (n/a)	1580 (n/a)	469 (n/a)	5.90 (n/a)	1680 (n/a)	123 (n/a)	180 (n/a)	487 (n/a)	10.7 (n/a)	139 (n/a)
Chloride	3/18/2021	mg/L	2.40 (1)	12.7 (1)	58.3 (10)	10.6 (1)	1360 (200)	1770 (200)	394 (50)	2.10 (1)	1730 (200)	114 (20)	-----	595 (100)	19.9 (2)	85.5 (10)
Chloride	9/16/2021	mg/L	2.30 (1)	7.20 (1)	25.3 (5)	9.20 (1)	1260 (200)	1470 (200)	96.6 (20)	2.40 (1)	1450 (200)	379 (100)	675 (100)	450 (100)	18.8 (2)	89.3 (20)
Chloride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chloride	3/15/2022	mg/L	2.72 (1)	7.55 (1)	53.0 (1)	10.9 (1)	1240 (100)	2270 (100)	531 (100)	1.79 (1)	1460 (100)	98.1 (1)	683 (20)	625 (100)	23.2 (1)	104 (10)
Chloride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chloride	9/23/2022	mg/L	2.12 (1)	10.5 (1)	45.8 (1)	9.63 (1)	107 (50)	63.6 (50)	533 (50)	6.29 (1)	1420 (50)	93.0 (1)	305 (5)	508 (50)	22.7 (1)	1220 (50)
Chloride	3/20/2023	mg/L	2.42 (1)	13.2 (1)	ND (1)	11.3 (1)	1190 (50)	1650 (50)	715 (10)	ND (1)	1420 (5)	90.5 (1)	172 (10)	587 (20)	24.9 (1)	110 (10)
Chloride	5/8/2023	mg/L														
Chloride	9/26/2023	mg/L	2.21 (1.00)	5.90 (1.00)	34.7 (1.00)	9.84 (1.00)	1120 (200)	1590 (200)	444 (100)	7.89 (1.00)	1380 (200)	83.5 (1.00)	102 (50.0)	515 (200)	23.0 (1.00)	128 (100)
Chloride	3/18/2024	mg/L	2.51 (1.00)	19.6 (1.00)	70.1 (1.00)	11.8 (1.00)	1160 (50.0)	1560 (50.0)	490 (50.0)	2.22 (1.00)	1360 (50.0)	84.6 (1.00)	126 (50.0)	585 (50.0)	26.3 (1.00)	130 (50.0)
Chloride	9/17/2024	mg/L	2.77 (1.00)	6.76 (1.00)	39.3 (1.00)	11.2 (1.00)	1120 (100)	1470 (100)	417 (100)	6.29 (1.00)	1210 (100)	81.5 (1.00)	74.4 (1.00)	533 (100)	25.4 (1.00)	122 (20.0)
Chromium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	0.00641 (n/a)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Chromium	9/4/2018	mg/L	0.00727 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.01)	0.00578 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	3/18/2019	mg/L	ND (0.005)	0.108 (n/a)	0.0225 (n/a)	ND (0.005)	0.00979 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	0.00999 (n/a)	0.00535 (n/a)	ND (0.005)	0.00114 (n/a)	ND (0.005)	ND (0.005)
Chromium	8/27/2019	mg/L	0.00143 (n/a)	0.00294 (n/a)	ND (0.00098)	ND (0.00098)	ND (0.00098)	ND (0.00098)	ND (0.00098)	ND (0.00098)	ND (0.00098)	ND (0.00392)	0.00361 (n/a)	ND (0.00098)	ND (0.00098)	0.000997 (n/a)
Chromium	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.005)	ND (0.005)	0.00139 (n/a)	0.00191 (n/a)	ND (0.02)	ND (0.005)	ND (0.005)
Chromium	9/1/2020	mg/L	ND (0.0011)	ND (0.0011)	ND (0.0011)	ND (0.0011)	0.00189 (n/a)	0.00117 (n/a)	0.00173 (n/a)	ND (0.0011)	0.0002 (n/a)	ND (0.0011)	0.00438 (n/a)	ND (0.0011)	ND (0.0011)	ND (0.0011)
Chromium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-----	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chromium	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Chromium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chromium	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)	ND (0.005)	ND (0.035)	ND (0.005)	86.7 (0.5)	ND (0.035)	ND (0.005)	ND (0.0350)
Chromium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	5/8/2023	mg/L														
Chromium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)
Chromium	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Chromium	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.225)	ND (0.315)	ND (0.00500)	ND (0.00500)	ND (0.250)	ND (0.00500)	ND (0.00500)	ND (0.125)	ND (0.00500)	ND (0.150)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Cobalt	3/12/2018	mg/L	0.000535 (n/a)	0.00225 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	0.00522 (n/a)	ND (0.0005)	ND (0.05)	0.00243 (n/a)	0.000857 (n/a)	ND (0.025)	ND (0.0005)	ND (0.0005)
Cobalt	9/4/2018	mg/L	0.00051 (n/a)	0.00127 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	0.00665 (n/a)	0.000529 (n/a)	ND (0.0005)	0.00482 (n/a)	0.00375 (n/a)	ND (0.025)	0.00104 (n/a)	ND (0.0005)
Cobalt	3/18/2019	mg/L	ND (0.0005)	0.0213 (n/a)	0.00891 (n/a)	0.00109 (n/a)	0.000766 (n/a)	ND (0.0005)	0.00962 (n/a)	0.000569 (n/a)	0.000597 (n/a)	0.00926 (n/a)	0.000979 (n/a)	0.00273 (n/a)	ND (0.0005)	0.000942 (n/a)
Cobalt	8/27/2019	mg/L	0.00052 (n/a)	0.00277 (n/a)	0.000658 (n/a)	0.000635 (n/a)	0.000456 (n/a)	0.000256 (n/a)	0.00373 (n/a)	0.000921 (n/a)	0.000331 (n/a)	0.00498 (n/a)	0.00578 (n/a)	0.00135 (n/a)	0.000284 (n/a)	0.000539 (n/a)
Cobalt	3/26/2020	mg/L	0.000197 (n/a)	ND (0.005)	0.000257 (n/a)	0.000647 (n/a)	ND (0.005)	ND (0.002)	0.00345 (n/a)	0.000602 (n/a)	0.000246 (n/a)	0.00138 (n/a)	0.00827 (n/a)	0.00191 (n/a)	0.000503 (n/a)	0.000629 (n/a)
Cobalt	9/1/2020	mg/L	0.00031 (n/a)	0.000272 (n/a)	ND (0.000091)	0.000219 (n/a)	0.000415 (n/a)	0.00035 (n/a)	0.00109 (n/a)	0.000115 (n/a)	0.000434 (n/a)	0.00375 (n/a)	0.00343 (n/a)	0.00251 (n/a)	0.00102 (n/a)	0.000701 (n/a)
Cobalt	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0051 (0.005)	-----	ND (0.005)	ND (0.005)	ND (0.005)
Cobalt	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cobalt	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cobalt	3/15/2022	mg/L	ND (0.0005)	0.000654 (0.0005)	0.00177 (0.0005)	0.000820 (0.0005)	ND (0.005)	ND (0.005)	ND (0.002)	0.000611 (0.0005)	ND (0.005)	0.00449 (0.0005)	0.00125 (0.0005)	0.00314 (0.0025)	0.00103 (0.0005)	ND (0.002)
Cobalt	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cobalt	9/23/2022	mg/L	ND (0.0005)	ND (0.0005)	0.00218 (0.0005)	0.000521 (0.0005)	ND (0.0035)	ND (0.0035)	ND (0.002)	0.000637 (0.0005)	ND (0.0035)	0.00369 (0.0005)	0.00148 (0.0005)	0.00379 (0.0035)	0.00121 (0.0005)	ND (0.0035)
Cobalt	3/20/2023	mg/L	ND (0.0005)	ND (0.0005)	0.000910 (0.0005)	0.000843 (0.0005)	ND (0.005)	ND (0.0005)	0.00511 (0.005)	ND (0.0005)	ND (0.0005)	0.00209 (0.0005)	0.00112 (0.0005)	0.00319 (0.005)	0.000715 (0.0005)	ND (0.0005)
Cobalt	5/8/2023	mg/L														
Cobalt	9/26/2023	mg/L	ND (0.000500)	0.000578 (0.000500)	0.000551 (0.000500)	0.000616 (0.000500)	ND (0.00200)	ND (0.000500)	0.000782 (0.000500)	ND (0.000500)	ND (0.0500)	0.00357 (0.000500)	0.00146 (0.000500)	0.00257 (0.00200	0.00124 (0.000500)	ND (0.00200)
Cobalt	3/18/2024	mg/L	ND (0.000500)	ND (0.000500)	ND (0.000500)	0.000886 (0.000500)	ND (0.00500)	ND (0.000500)	0.000675 (0.000500)	ND (0.000500)	ND (0.0500)	0.00394 (0.000500)	0.00122 (0.000500)	0.00245 (0.00500)	0.00763 (0.000500)	ND (0.00500)
Cobalt	9/17/2024	mg/L	ND (0.000500)	ND (0.000500)	0.00176 (0.000500)	0.00112 (0.000500)	ND (0.0225)	ND (0.0315)	ND (0.000500)	ND (0.000500)	ND (0.0250)	0.00289 (0.000500)	0.00176 (0.000500)	ND (0.0125)	0.00215 (0.000500)	ND (0.00500)
Copper	3/12/2018	mg/L	0.0314 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Copper	9/4/2018	mg/L	0.0127 (n/a)	0.0235 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.01)	0.0174 (n/a)	ND (0.005)	0.00572 (n/a)	ND (0.005)
Copper	3/18/2019	mg/L	ND (0.005)	0.155 (n/a)	0.0332 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.00856 (n/a)	ND (0.002)	0.0703 (n/a)	ND (0.005)	0.0255 (n/a)	ND (0.005)	ND (0.005)
Copper	8/27/2019	mg/L	0.00338 (n/a)	0.00695 (n/a)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0201 (n/a)	0.00794 (n/a)	0.00871 (n/a)	ND (0.002)	ND (0.002)
Copper	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	0.0305 (n/a)	ND (0.02)	ND (0.005)	ND (0.005)
Copper	9/1/2020	mg/L	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	0.00185 (n/a)	ND (0.0015)	0.0106 (n/a)	ND (0.0015)	ND (0.0015)	0.00613 (n/a)
Copper	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Copper	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Copper	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Copper	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Copper	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Copper	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.035)
Copper	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.00535)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)
Copper	5/8/2023	mg/L														
Copper	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00200)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)
Copper	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Copper	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.225)	ND (0.315)	ND (0.00500)	ND (0.00500)	ND (0.250)	ND (0.00500)	ND (0.00500)	ND (0.125)	0.00767 (0.00500)	ND (0.150)
Fluoride	3/12/2018	mg/L	0.88 (n/a)	ND (0.5)	0.185 (n/a)	ND (0.5)	1.95 (n/a)	2.92 (n/a)	ND (0.5)	ND (0.5)	3.93 (n/a)	0.501 (n/a)	ND (0.5)	0.663 (n/a)	0.616 (n/a)	ND (0.5)
Fluoride	9/4/2018	mg/L	0.813 (n/a)	ND (0.1)	0.105 (n/a)	0.274 (n/a)	1.40 (n/a)	2.29 (n/a)	ND (0.1)	0.203 (n/a)	1.41 (n/a)	0.446 (n/a)	0.319 (n/a)	0.395 (n/a)	0.488 (n/a)	ND (0.1)
Fluoride	3/18/2019	mg/L	0.771 (n/a)	0.197 (n/a)	0.147 (n/a)	0.237 (n/a)	1.81 (n/a)	2.92 (n/a)	ND (0.5)	0.109 (n/a)	1.84 (n/a)	0.912 (n/a)	0.516 (n/a)	0.405 (n/a)	0.517 (n/a)	ND (0.5)
Fluoride	8/27/2019	mg/L	0.525 (n/a)	ND (0.045)	ND (0.045)	0.0535 (n/a)	ND (0.045)	ND (0.045)	ND (0.045)	0.389 (n/a)	ND (0.045)	0.125 (n/a)	0.636 (n/a)	ND (0.045)	0.621 (n/a)	0.079 (n/a)
Fluoride	3/26/2020	mg/L	0.918 (n/a)	0.231 (n/a)	0.524 (n/a)	0.374 (n/a)	1.81 (n/a)	3.25 (n/a)	1.77 (n/a)	ND (0.5)	1.78 (n/a)	0.658 (n/a)	0.0719 (n/a)	0.727 (n/a)	0.606 (n/a)	0.318 (n/a)
Fluoride	9/1/2020	mg/L	0.938 (n/a)	ND (0.23)	0.256 (n/a)	0.37 (n/a)	1.89 (n/a)	2.49 (n/a)	0.198 (n/a)	0.156 (n/a)	1.20 (n/a)	ND (0.046)	0.274 (n/a)	0.221 (n/a)	0.586 (n/a)	ND (0.046)
Fluoride	3/18/2021	mg/L	0.89 (0.2)	0.29 (0.2)	0.28 (0.2)	0.41 (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	0.29 (0.2)	2.20 (0.2)	ND (0.2)	-----	0.82 (0.2)	0.64 (0.2)	0.39 (0.2)
Fluoride	9/16/2021	mg/L	0.70 (0.2)	0.31 (0.2)	ND (0.2)	0.42 (0.2)	0.49 (0.2)	3.30 (0.2)	0.35 (0.2)	0.27 (0.2)	0.39 (0.2)	0.45 (0.2)	ND (0.2)	0.66 (0.2)	0.64 (0.2)	0.25 (0.2)
Fluoride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Fluoride	3/15/2022	mg/L	0.564 (0.1)	ND (0.1)	ND (0.1)	ND (0.5)	ND (0.1)	ND (10)	1.47 (0.1)	ND (0.1)	ND (10)	0.121 (0.1)	ND (0.1)	ND (0.1)	0.145 (0.1)	0.139 (0.1)
Fluoride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Fluoride	9/23/2022	mg/L	0.774 (0.1)	0.189 (0.1)	0.2 (0.1)	0.183 (0.1)	4.41 (0.1)	5.63 (0.1)	0.300 (0.1)	ND (0.1)	4.7 (0.1)	0.701 (0.1)	ND (0.1)	2.97 (0.1)	0.521 (0.1)	0.262 (0.1)
Fluoride	3/20/2023	mg/L	1.01 (0.1)	0.248 (0.1)	ND (0.1)	0.319 (0.1)	1.95 (0.1)	3.21 (0.1)	0.273 (0.1)	0.152 (0.1)	2.36 (0.1)	ND (0.1)	0.472 (0.1)	0.881 (0.1)	0.876 (0.1)	0.316 (0.1)
Fluoride	5/8/2023	mg/L														
Fluoride	9/26/2023	mg/L	0.816 (0.200)	ND (0.200)	ND (0.200)	0.271 (0.200)	5.14 (0.200)	7.35 (0.200)	1.04 (0.200)	ND (0.200)	6.03 (0.200)	0.509 (0.200)	0.269 (0.200)	0.553 (0.200)	0.567 (0.200)	0.333 (0.200)
Fluoride	3/18/2024	mg/L	0.930 (0.200)	ND (0.200)	0.231 (0.200)	0.329 (0.200)	1.49 (0.200)	2.23 (0.200)	0.343 (0.200)	0.203 (0.200)	1.67 (0.200)	0.661 (0.200)	0.443 (0.200)	0.657 (0.200)	0.633 (0.200)	0.277 (0.200)
Fluoride	9/17/2024	mg/L	0.870 (0.200)	0.273 (0.200)	ND (1.00)	0.425 (0.200)	1.24 (0.200)	1.68 (0.200)	0.636 (0.200)	ND (0.200)	1.42 (0.200)	ND (0.200)	0.352 (0.200)	0.644 (0.200)	0.450 (0.200)	0.272 (0.200)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Lead	3/12/2018	mg/L	0.00274 (n/a)	0.00147 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	ND (0.0005)	ND (0.0005)	ND (0.05)	0.00217 (n/a)	0.00139 (n/a)	ND (0.025)	ND (0.0005)	0.00102 (n/a)
Lead	9/4/2018	mg/L	0.00135 (n/a)	0.00107 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	ND (0.001)	0.000614 (n/a)	ND (0.05)	0.00258 (n/a)	0.012 (n/a)	ND (0.0005)	0.00144 (n/a)	ND (0.0005)
Lead	3/18/2019	mg/L	ND (0.0005)	0.00869 (n/a)	ND (0.0005)	ND (0.0005)	0.000601 (n/a)	ND (0.0005)	0.00547 (n/a)	0.000776 (n/a)	ND (0.0027)	0.00173 (n/a)	0.0016 (n/a)	ND (0.00027)	ND (0.0005)	0.00146 (n/a)
Lead	8/27/2019	mg/L	0.00123 (n/a)	0.00169 (n/a)	ND (0.00027)	ND (0.00027)	ND (0.0027)	ND (0.0027)	0.000514 (n/a)	0.000377 (n/a)	ND (0.0027)	0.00261 (n/a)	0.00581 (n/a)	0.00124 (n/a)	0.000357 (n/a)	0.00141 (n/a)
Lead	3/26/2020	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.0005)	ND (0.005)	0.000705 (n/a)	0.0194 (n/a)	ND (0.002)	0.000394 (n/a)	0.000962 (n/a)
Lead	9/1/2020	mg/L	0.000212 (n/a)	ND (0.00011)	ND (0.00011)	0.000175 (n/a)	ND (0.00077)	ND (0.00077)	0.000401 (n/a)	0.000132 (n/a)	ND (0.0022)	0.000359 (n/a)	0.0067 (n/a)	0.000186 (n/a)	0.000468 (n/a)	0.00062 (n/a)
Lead	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Lead	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Lead	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lead	3/15/2022	mg/L	ND (0.0005)	0.000698 (0.0005)	ND (0.0005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	0.000506 (0.0005)	ND (0.005)	ND (0.0005)	0.000644 (0.0005)	ND (0.0025)	ND (0.0005)	ND (0.002)
Lead	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lead	9/23/2022	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.005)	ND (0.0035)	ND (0.0035)	ND (0.002)	ND (0.0005)	ND (0.0035)	ND (0.0005)	ND (0.0005)	ND (0.0035)	ND (0.0005)	ND (0.0035)
Lead	3/20/2023	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.005)	ND (0.0005)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)
Lead	5/8/2023	mg/L														
Lead	9/26/2023	mg/L	0.000583 (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.500)	0.000515 (0.000500)	ND (0.000500)	ND (0.000500)	0.00179 (0.000500)	ND (0.00200)
Lead	3/18/2024	mg/L	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	0.000930 (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.00500)	ND (0.000500)	0.000725 (0.000500)	ND (0.000500)	0.00688 (0.000500)	0.000631 (0.00500
Lead	9/17/2024	mg/L	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.00500)	ND (0.000500)	0.00106 (0.000500)	ND (0.000500)	0.00432 (0.000500)	ND (0.00500)
Lithium	3/12/2018	mg/L	0.104 (n/a)	ND (0.01)	ND (0.01)	0.0309 (n/a)	1.02 (n/a)	ND (1)	0.0308 (n/a)	0.0215 (n/a)	ND (1)	0.0698 (n/a)	0.0403 (n/a)	ND (0.5)	0.0525 (n/a)	0.0434 (n/a)
Lithium	9/4/2018	mg/L	0.0949 (n/a)	ND (0.01)	0.0105 (n/a)	0.0279 (n/a)	ND (1)	ND (1)	0.0322 (n/a)	0.0218 (n/a)	ND (1)	0.0752 (n/a)	0.0422 (n/a)	ND (0.5)	0.0603 (n/a)	0.0158 (n/a)
Lithium	3/18/2019	mg/L	0.0913 (n/a)	ND (0.01)	0.01 (n/a)	0.0287 (n/a)	0.809 (n/a)	0.592 (n/a)	0.0302 (n/a)	0.0343 (n/a)	0.702 (n/a)	0.0781 (n/a)	0.0364 (n/a)	0.176 (n/a)	0.0575 (n/a)	0.0498 (n/a)
Lithium	8/27/2019	mg/L	0.0999 (n/a)	0.0049 (n/a)	0.0114 (n/a)	0.0305 (n/a)	0.745 (n/a)	0.515 (n/a)	0.0426 (n/a)	0.0258 (n/a)	0.604 (n/a)	0.0806 (n/a)	0.0383 (n/a)	0.205 (n/a)	0.0513 (n/a)	0.0552 (n/a)
Lithium	3/26/2020	mg/L	0.0938 (n/a)	0.00761 (n/a)	0.0103 (n/a)	0.031 (n/a)	0.883 (n/a)	0.677 (n/a)	0.0375 (n/a)	0.0253 (n/a)	0.698 (n/a)	0.0774 (n/a)	0.0114 (n/a)	0.192 (n/a)	0.0582 (n/a)	0.0579 (n/a)
Lithium	9/1/2020	mg/L	0.0974 (n/a)	0.0113 (n/a)	0.0115 (n/a)	0.0269 (n/a)	0.879 (n/a)	0.771 (n/a)	0.0853 (n/a)	0.0512 (n/a)	0.941 (n/a)	0.0783 (n/a)	0.0186 (n/a)	0.213 (n/a)	0.0603 (n/a)	0.0584 (n/a)
Lithium	3/18/2021	mg/L	0.102 (0.01)	ND (0.01)	0.0116 (0.01)	0.0355 (0.01)	0.726 (0.01)	0.732 (0.01)	0.0815 (0.01)	0.0295 (0.01)	0.77 (0.01)	0.081 (0.01)	-----	0.216 (0.01)	0.0634 (0.01)	0.0658 (0.01)
Lithium	9/16/2021	mg/L	0.0952 (0.01)	ND (0.01)	0.0113 (0.01)	0.0323 (0.01)	0.611 (0.01)	0.681 (0.01)	0.0706 (0.01)	0.0269 (0.01)	0.693 (0.01)	0.083 (0.01)	0.0145 (0.01)	0.192 (0.01)	0.0597 (0.01)	0.0676 (0.01)
Lithium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lithium	3/15/2022	mg/L	0.106 (0.01)	ND (0.01)	0.0137 (0.01)	0.0316 (0.01)	0.545 (0.1)	0.911 (0.1)	0.108 (0.04)	0.0260 (0.01)	0.749 (0.1)	0.0707 (0.01)	0.0216 (0.01)	0.270 (0.05)	0.0659 (0.01)	0.0723 (0.04)
Lithium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lithium	9/23/2022	mg/L	0.0837 (0.01)	ND (0.01)	ND (0.01)	0.0247 (0.01)	0.667 (0.07)	0.904 (0.07)	0.108 (0.04)	0.0260 (0.01)	0.824 (0.07)	0.0702 (0.01)	0.0316 (0.01)	0.270 (0.07)	0.0536 (0.01)	0.0888 (0.07)
Lithium	3/20/2023	mg/L	0.0937 (0.01)	ND (0.01)	0.0136 (0.01)	0.0256 (0.01)	0.371 (0.01)	0.464 (0.01)	0.0874 (0.01)	0.0460 (0.01)	0.453 (0.01)	0.0547 (0.01)	0.0315 (0.01)	0.177 (0.01)	0.0490 (0.01)	0.0682 (0.01)
Lithium	5/8/2023	mg/L														
Lithium	9/26/2023	mg/L	0.105 (0.0100)	ND (0.0100)	0.0149 (0.0100)	0.0346 (0.0100)	0.447 (0.280)	0.643 (0.280)	0.103 (0.0100)	0.0811 (0.0100)	ND (1.00)	0.0165 (0.0100)	0.0333 (0.0100)	ND (0.280)	0.0670 (0.0100)	0.0882 (0.0400)
Lithium	3/18/2024	mg/L	0.107 (0.0100)	ND (0.0100)	0.0177 (0.0100)	0.0315 (0.0100)	0.546 (0.0100)	0.767 (0.0100)	0.0804 (0.0100)	0.0308 (0.0100)	ND (1.00)	0.0663 (0.0100)	0.0390 (0.0100)	0.256 (0.0100)	0.0603 (0.0100)	0.0827 (0.0100)
Lithium	9/17/2024	mg/L	0.0942 (0.0100)	ND (0.0100)	0.0134 (0.0100)	0.0300 (0.0100)	ND (0.450)	ND (0.630)	0.0804 (0.0100)	0.0438 (0.0100)	ND (0.500)	0.0585 (0.0100)	0.0383 (0.0100)	ND (0.250)	0.0621 (0.0100)	ND (0.300)
Magnesium	3/12/2018	mg/L	41.9 (n/a)	78.7 (n/a)	32.5 (n/a)	40.2 (n/a)	ND (5)	ND (5)	132 (n/a)	39.7 (n/a)	ND (5)	77.5 (n/a)	41.4 (n/a)	126 (n/a)	44.2 (n/a)	66.4 (n/a)
Magnesium	9/4/2018	mg/L	40.7 (n/a)	101 (n/a)	38.7 (n/a)	39.0 (n/a)	ND (0.05)	ND (5)	81.9 (n/a)	41.5 (n/a)	7.58 (n/a)	82.4 (n/a)	77.6 (n/a)	139 (n/a)	49.2 (n/a)	60.9 (n/a)
Magnesium	3/18/2019	mg/L	41.4 (n/a)	117 (n/a)	38.5 (n/a)	40.9 (n/a)	ND (0.5)	0.67 (n/a)	160 (n/a)	33.8 (n/a)	8.00 (n/a)	88.0 (n/a)	44.7 (n/a)	116 (n/a)	46.2 (n/a)	68.9 (n/a)
Magnesium	8/27/2019	mg/L	41.1 (n/a)	83.2 (n/a)	37.9 (n/a)	40.6 (n/a)	0.115 (n/a)	0.58 (n/a)	131 (n/a)	46.9 (n/a)	9.34 (n/a)	94.4 (n/a)	47.5 (n/a)	119 (n/a)	41.9 (n/a)	71.0 (n/a)
Magnesium	3/26/2020	mg/L	41.4 (n/a)	69.4 (n/a)	43.5 (n/a)	34.5 (n/a)	ND (5)	ND (2)	191 (n/a)	47.0 (n/a)	8.00 (n/a)	84.7 (n/a)	22.3 (n/a)	113 (n/a)	45.2 (n/a)	79.1 (n/a)
Magnesium	9/1/2020	mg/L	43.5 (n/a)	84.8 (n/a)	40.5 (n/a)	34.1 (n/a)	0.174 (n/a)	0.41 (n/a)	207 (n/a)	21.6 (n/a)	7.79 (n/a)	86.2 (n/a)	16.1 (n/a)	146 (n/a)	50.0 (n/a)	79.8 (n/a)
Magnesium	3/18/2021	mg/L	42.8 (0.05)	78.6 (0.05)	51.2 (0.05)	40.2 (0.05)	ND (1)	1.90 (1)	136 (0.05)	47.0 (0.05)	4.18 (0.05)	81.5 (0.05)	-----	119 (0.05)	58.0 (0.05)	81.9 (0.05)
Magnesium	9/16/2021	mg/L	39.3 (0.05)	73.8 (0.05)	37.6 (0.05)	40.4 (0.05)	ND (0.05)	0.196 (0.05)	72.4 (0.05)	43.3 (0.05)	2.34 (0.05)	144 (0.05)	8.60 (0.05)	106 (0.05)	52.0 (0.05)	81.1 (0.05)
Magnesium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Magnesium	3/15/2022	mg/L	41.8 (0.5)	65.2 (0.5)	51.9 (0.5)	40.1 (0.5)	ND (5)	ND (5)	169 (2)	46.9 (0.5)	ND (5)	70.1 (0.5)	20.5 (0.5)	133 (0.05)	57.9 (0.5)	81.7 (2)
Magnesium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Magnesium	9/23/2022	mg/L	37.4 (0.5)	54.1 (0.5)	34.6 (0.5)	36.9 (0.5)	ND (3.5)	ND (3.5)	160 (2)	36.1 (0.5)	ND (3.5)	67.0 (0.5)	37.1 (0.5)	134 (3.5)	52.4 (0.5)	92.6 (3.5)
Magnesium	3/20/2023	mg/L	43.9 (0.5)	80.6 (0.5)	49.3 (0.5)	44.9 (0.5)	ND (0.5)	ND (0.5)	177 (5)	14.7 (0.5)	ND (0.5)	57.0 (0.5)	35.8 (0.5)	125 (2)	49.5 (0.5)	87.4 (0.5)
Magnesium	5/8/2023	mg/L														
Magnesium	9/26/2023	mg/L	38.7 (0.500)	60.2 (0.500)	47.9 (0.500)	47.6 (0.500)	0.0684 (0.0100)	ND (0.500)	130 (2.00)	3.70 (0.500)	ND (50.0)	59.8 (0.0100)	41.9 (0.500)	115 (2.00)	60.1 (0.500)	88.3 (2.00)
Magnesium	3/18/2024	mg/L	41.4 (0.500)	77.3 (0.500)	59.2 (0.500)	43.9 (0.500)	ND (40.0)	ND (50.0)	113 (2.00)	45.3 (0.500)	ND (50.0)	65.1 (0.0100)	41.3 (0.500)	123 (2.00)	56.6 (0.500)	89.3 (0.500)
Magnesium	9/17/2024	mg/L	46.3 (0.500)	56.5 (0.500)	44.6 (0.500)	40.6 (0.500)	ND (0.500)	ND (0.500)	118 (2.00)	31.3 (0.500)	ND (0.500)	68.5 (0.500)	45.2 (0.500)	92.9 (12.5)	65.8 (0.500)	86.9 (0.500)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Manganese	3/12/2018	mg/L	0.0205 (n/a)	0.176 (n/a)	ND (0.01)	0.0997 (n/a)	ND (1)	ND (1)	0.648 (n/a)	0.114 (n/a)	ND (1)	0.74 (n/a)	0.143 (n/a)	ND (0.5)	0.0269 (n/a)	0.0452 (n/a)
Manganese	9/4/2018	mg/L	0.0207 (n/a)	0.21 (n/a)	ND (0.01)	0.108 (n/a)	ND (0.01)	ND (0.01)	0.177 (n/a)	0.158 (n/a)	ND (0.01)	1.05 (n/a)	1.42 (n/a)	ND (0.5)	0.0657 (n/a)	0.914 (n/a)
Manganese	3/18/2019	mg/L	ND (0.01)	1.79 (n/a)	0.204 (n/a)	0.11 (n/a)	0.0119 (n/a)	ND (0.01)	0.894 (n/a)	0.117 (n/a)	ND (0.0025)	1.09 (n/a)	0.251 (n/a)	0.317 (n/a)	0.0269 (n/a)	0.0463 (n/a)
Manganese	8/27/2019	mg/L	0.0234 (n/a)	0.405 (n/a)	0.10 (n/a)	0.124 (n/a)	0.102 (n/a)	0.0155 (n/a)	0.482 (n/a)	0.189 (n/a)	ND (n/a)	1.75 (n/a)	1.44 (n/a)	0.237 (n/a)	0.0219 (n/a)	0.0504 (n/a)
Manganese	3/26/2020	mg/L	0.0158 (n/a)	0.00669 (n/a)	0.0226 (n/a)	0.10 (n/a)	ND (0.1)	ND (0.04)	0.746 (n/a)	0.197 (n/a)	ND (0.01)	0.758 (n/a)	2.42 (n/a)	0.215 (n/a)	0.0348 (n/a)	0.0648 (n/a)
Manganese	9/1/2020	mg/L	0.0154 (n/a)	0.0448 (n/a)	0.00541 (n/a)	0.044 (n/a)	0.0069 (n/a)	0.00678 (n/a)	0.636 (n/a)	0.0677 (n/a)	ND (0.004)	1.77 (n/a)	0.465 (n/a)	0.26 (n/a)	0.0902 (n/a)	0.0639 (n/a)
Manganese	3/18/2021	mg/L	0.0224 (0.005)	0.0571 (0.005)	0.0472 (0.005)	0.0499 (0.005)	0.0433 (0.005)	ND (0.005)	0.0142 (0.005)	0.18 (0.005)	ND (0.005)	1.87 (0.005)	-----	0.366 (0.005)	0.108 (0.005)	0.0494 (0.005)
Manganese	9/16/2021	mg/L	0.0265 (0.005)	0.092 (0.005)	0.0332 (0.005)	0.137 (0.005)	0.0154 (0.005)	ND (0.005)	1.80 (0.005)	0.166 (0.005)	ND (0.005)	0.0911 (0.005)	0.216 (0.005)	0.299 (0.005)	0.20 (0.005)	0.0581 (0.005)
Manganese	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Manganese	3/15/2022	mg/L	0.0269 (0.01)	0.0843 (0.01)	0.135 (0.01)	0.161 (0.01)	ND (0.1)	ND (0.1)	0.0450 (0.04)	0.173 (0.01)	ND (0.1)	2.00 (0.01)	0.228 (0.01)	0.333 (0.5)	0.121 (0.01)	0.0568 (0.04)
Manganese	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Manganese	9/23/2022	mg/L	ND (0.01)	0.0291 (0.01)	0.160 (0.01)	0.125 (0.01)	ND (0.07)	ND (0.07)	0.136 (0.04)	0.159 (0.01)	ND (0.07)	1.64 (0.01)	0.328 (0.01)	0.368 (0.07)	0.147 (0.01)	0.0771 (0.07)
Manganese	3/20/2023	mg/L	0.0231 (0.01)	0.0242 (0.01)	0.0934 (0.01)	0.195 (0.1)	0.0177 (0.01)	ND (0.01)	0.583 (0.01)	0.0249 (0.01)	ND (0.01)	1.36 (0.01)	0.314 (0.01)	0.340 (0.01)	0.0912 (0.01)	0.0339 (0.01)
Manganese	5/8/2023	mg/L														
Manganese	9/26/2023	mg/L	0.0559 (0.0100)	0.0873 (0.0100)	0.0686 (0.0100)	0.167 (0.0100)	0.0684 (0.0100)	ND (0.0100)	0.423 (0.0100)	ND (0.0100)	ND (1.00)	1.42 (0.0100)	0.349 (0.0100)	0.282 (0.0100)	0.258 (0.0100)	0.0577 (0.0400)
Manganese	3/18/2024	mg/L	0.0213 (0.0100)	0.0708 (0.0100)	0.0302 (0.0100)	0.187 (0.0100)	ND (0.800)	ND (1.00)	0.124 (0.0100)	0.145 (0.0100)	ND (1.00)	1.66 (0.0100)	0.466 (0.0100)	0.270 (0.0100)	0.117 (0.0100)	0.0763 (0.0100)
Manganese	9/17/2024	mg/L	0.0212 (0.0100)	0.0155 (0.0100)	0.181 (0.0100)	0.292 (0.0100)	ND (0.450)	ND (0.630)	0.0142 (0.0100)	0.0879 (0.0100)	ND (0.0100)	1.36 (0.0100)	0.340 (0.0100)	ND (0.250)	0.375 (0.0100)	0.0432 (0.0100)
Molybdenum	3/12/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.222 (n/a)	ND (0.2)	ND (0.002)	ND (0.002)	0.233 (n/a)	ND (0.008)	ND (0.002)	ND (0.1)	ND (0.002)	ND (0.002)
Molybdenum	9/4/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.2)	0.239 (n/a)	ND (0.004)	ND (0.002)	0.239 (n/a)	ND (0.004)	0.00245 (n/a)	ND (0.1)	0.00393 (n/a)	ND (0.002)
Molybdenum	3/18/2019	mg/L	0.0023 (n/a)	0.0184 (n/a)	0.0116 (n/a)	ND (0.002)	0.193 (n/a)	0.147 (n/a)	0.0103 (n/a)	ND (0.002)	0.199 (n/a)	0.00302 (n/a)	ND (0.002)	0.0695 (n/a)	ND (0.002)	ND (0.002)
Molybdenum	8/27/2019	mg/L	ND (0.0011)	0.00116 (n/a)	ND (0.0011)	ND (0.0011)	0.15 (n/a)	0.0834 (n/a)	0.00173 (n/a)	ND (0.0011)	0.124 (n/a)	ND (0.0044)	0.00241 (n/a)	0.568 (n/a)	0.00114 (n/a)	ND (0.0011)
Molybdenum	3/26/2020	mg/L	ND (0.002)	0.00118 (n/a)	ND (0.002)	0.00291 (n/a)	0.201 (n/a)	0.120 (n/a)	ND (0.008)	ND (0.002)	0.041 (n/a)	ND (0.002)	0.0106 (n/a)	0.077 (n/a)	0.00154 (n/a)	ND (0.002)
Molybdenum	9/1/2020	mg/L	ND (0.0011)	ND (0.0011)	ND (0.0011)	ND (0.0011)	0.192 (n/a)	0.185 (n/a)	0.00243 (n/a)	0.00191 (n/a)	0.209 (n/a)	ND (0.0011)	0.0134 (n/a)	0.0875 (n/a)	ND (0.0011)	ND (0.0011)
Molybdenum	3/18/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.162 (0.02)	0.189 (0.02)	ND (0.02)	ND (0.02)	0.173 (0.02)	ND (0.02)	-----	0.0789 (0.02)	ND (0.02)	ND (0.02)
Molybdenum	9/16/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.160 (0.02)	0.185 (0.02)	ND (0.02)	ND (0.02)	0.167 (0.02)	ND (0.02)	0.0228 (0.02)	0.0761 (0.02)	ND (0.02)	ND (0.02)
Molybdenum	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Molybdenum	3/15/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.161 (0.02)	0.263 (0.02)	ND (0.008)	ND (0.002)	0.194 (0.02)	ND (0.002)	0.0143 (0.002)	0.103 (0.1)	ND (0.002)	ND (0.008)
Molybdenum	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Molybdenum	9/23/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.158 (0.014)	0.222 (0.014)	ND (0.008)	ND (0.002)	0.194 (0.14)	ND (0.002)	0.00652 (0.002)	0.112 (0.014)	ND (0.002)	ND (0.014)
Molybdenum	3/20/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.109 (0.002)	0.124 (0.002)	ND (0.002)	0.00329 (0.002)	0.107 (0.002)	ND (0.002)	0.00567 (0.002)	0.0789 (0.002)	ND (0.002)	ND (0.002)
Molybdenum	5/8/2023	mg/L														
Molybdenum	9/26/2023	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.121 (0.00200)	0.170 (0.00200)	ND (0.00200)	0.00389 (0.00200)	ND (0.200)	ND (0.00200)	0.00673 (0.00200)	0.0895 (0.00200)	ND (0.00200)	ND (0.00800)
Molybdenum	3/18/2024	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.143 (0.00200)	0.237 (0.00200)	0.00274 (0.00200)	ND (0.00200)	0.177 (0.00200)	ND (0.00200)	0.00426 (0.00200)	0.0970 (0.00200)	ND (0.00200)	ND (0.00200)
Molybdenum	9/17/2024	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.116 (0.0900)	0.175 (0.126)	0.00348 (0.00200)	ND (0.00200)	0.131 (0.100)	ND (0.00200)	0.00538 (0.00200)	0.0787 (0.0500)	ND (0.00200)	ND (0.0600)
Nickel	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	0.0167 (n/a)	ND (0.005)	ND (0.5)	ND (0.02)	0.00555 (n/a)	ND (0.25)	ND (0.005)	ND (0.005)
Nickel	9/4/2018	mg/L	0.0054 (n/a)	0.00541 (n/a)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	0.0272 (n/a)	ND (0.005)	ND (0.5)	0.0154 (n/a)	0.0156 (n/a)	ND (0.25)	ND (0.005)	ND (0.005)
Nickel	3/18/2019	mg/L	0.011 (n/a)	0.128 (n/a)	0.076 (n/a)	ND (0.005)	0.0255 (n/a)	0.00839 (n/a)	0.0262 (n/a)	0.00599 (n/a)	0.0203 (n/a)	0.0165 (n/a)	ND (0.005)	0.00555 (n/a)	ND (0.005)	ND (0.005)
Nickel	8/27/2019	mg/L	0.0051 (n/a)	0.00757 (n/a)	0.0131 (n/a)	0.00177 (n/a)	0.0215 (n/a)	0.00804 (n/a)	0.0178 (n/a)	ND (0.0017)	0.0129 (n/a)	0.014 (n/a)	0.0159 (n/a)	0.00336 (n/a)	ND (0.0017)	0.00174 (n/a)
Nickel	3/26/2020	mg/L	ND (0.005)	ND (0.005)	0.0025 (n/a)	ND (0.005)	ND (0.05)	0.0101 (n/a)	0.0143 (n/a)	ND (0.005)	0.0171 (n/a)	0.0107 (n/a)	0.0228 (n/a)	ND (0.02)	ND (0.005)	0.00209 (n/a)
Nickel	9/1/2020	mg/L	ND (0.0019)	0.00232 (n/a)	ND (0.0019)	ND (0.0019)	0.025 (n/a)	0.0134 (n/a)	0.00972 (n/a)	ND (0.0019)	0.0179 (n/a)	0.0118 (n/a)	0.00912 (n/a)	0.00568 (n/a)	0.00212 (n/a)	0.00217 (n/a)
Nickel	3/18/2021	mg/L	ND (0.005)	ND (0.005)	0.0051 (0.005)	ND (0.005)	0.0139 (0.005)	0.0095 (0.005)	0.009 (0.005)	ND (0.005)	0.0151 (0.005)	0.0128 (0.005)	-----	0.007 (0.005)	ND (0.005)	ND (0.005)
Nickel	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0136 (0.005)	0.011 (0.005)	0.0118 (0.005)	ND (0.005)	0.0135 (0.005)	0.009 (0.005)	ND (0.005)	0.0082 (0.005)	ND (0.005)	ND (0.005)
Nickel	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nickel	3/15/2022	mg/L	ND (0.005)	ND (0.005)	0.00715 (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.005)	ND (0.05)	0.00967 (0.005)	0.00567 (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Nickel	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nickel	9/23/2022	mg/L	ND (0.005)	ND (0.005)	0.0102 (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)	0.864 (0.005)	ND (0.35)	0.00877 (0.005)	0.00641 (0.005)	ND (0.0350)	ND (0.005)	ND (0.035)
Nickel	3/20/2023	mg/L	ND (0.005)	ND (0.005)	0.00535 (0.005)	ND (0.005)	0.00905 (0.005)	0.00661 (0.005)	ND (0.05)	ND (0.005)	0.00853 (0.005)	0.00889 (0.005)	0.00571 (0.005)	0.00598 (0.005)	ND (0.005)	ND (0.05)
Nickel	5/8/2023	mg/L														
Nickel	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	0.00599 (0.00500)	ND (0.00500)	0.0114 (0.00500)	0.00826 (0.00500)	0.00612 (0.00500)	ND (0.00500)	ND (0.500)	0.00836 (0.00500)	0.00528 (0.00500)	0.00569 (0.00500)	ND (0.00500)	ND (0.0200)
Nickel	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	0.00747 (0.00500)	0.00601 (0.00500)	ND (0.00500)	ND (0.00500)	0.00768 (0.005)	0.00816 (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Nickel	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	0.00880 (0.00500)	ND (0.00500)	0.00834 (0.00500)	0.00646 (0.00500)	ND (0.00500)	ND (0.00500)	0.00773 (0.00500)	0.00819 (0.00500)	0.00608 (0.00500)	0.00583 (0.00500)	0.00512 (0.00500)	ND (0.00500)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Nitrate	3/12/2018	mg/L	1.09 (n/a)	ND (0.1)	2.29 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.168 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	9/4/2018	mg/L	2.09 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (5)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.383 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	3/18/2019	mg/L	2.50 (n/a)	ND (0.1)	1.04 (n/a)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.1)	1.6 (n/a)	ND (0.1)	0.288 (n/a)	0.111 (n/a)	ND (0.1)	0.103 (n/a)	ND (0.1)
Nitrate	8/27/2019	mg/L	2.55 (n/a)	0.154 (n/a)	0.231 (n/a)	ND (0.046)	ND (0.046)	ND (0.046)	ND (0.046)	0.05 (n/a)	ND (0.046)	1.10 (n/a)	ND (0.046)	ND (0.92)	0.046 (n/a)	ND (0.046)
Nitrate	3/26/2020	mg/L	0.13 (n/a)	ND (0.1)	0.98 (n/a)	0.0763 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	2.15 (n/a)	ND (0.1)	1.34 (n/a)	0.862 (n/a)	0.206 (n/a)	0.0598 (n/a)	ND (0.049)
Nitrate	9/1/2020	mg/L	0.991 (n/a)	ND (0.049)	0.586 (n/a)	0.417 (n/a)	ND (0.049)	ND (0.049)	ND (0.049)	0.0627 (n/a)	ND (0.245)	ND (0.049)	0.256 (n/a)	ND (0.049)	0.0918 (n/a)	ND (0.049)
Nitrate	3/18/2021	mg/L	0.20 (0.1)	0.11 (0.1)	0.44 (0.1)	ND (0.1)	ND (0.1)	0.13 (0.1)	ND (0.1)	0.35 (0.1)	ND (0.1)	ND (0.1)	-----	0.35 (0.1)	ND (0.1)	ND (0.1)
Nitrate	9/16/2021	mg/L	0.25 (0.1)	ND (0.1)	0.10 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.13 (0.1)	ND (0.1)	ND (0.1)	0.29 (0.1)	0.19 (0.1)	ND (0.1)	ND (0.1)
Nitrate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrate	3/15/2022	mg/L	ND (0.1)	ND (0.1)	0.202 (0.1)	ND (0.1)	ND (10)	ND (10)	ND (0.1)	ND (0.1)	ND (10)	0.126 (0.1)	0.149 (0.1)	0.678 (0.1)	ND (0.1)	ND (0.1)
Nitrate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrate	9/23/2022	mg/L	ND (0.1)	ND (0.1)	0.154 (0.1)	ND (0.1)	ND (0.1)	0.573 (0.1)	0.143 (0.1)	3.77 (0.1)	ND (0.1)	0.281 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.258 (0.1)	ND (0.1)	3.86 (0.1)	ND (0.1)	ND (0.1)	0.144 (0.1)	1.62 (0.1)	ND (0.1)	ND (0.1)
Nitrate	5/8/2023	mg/L														
Nitrate	9/26/2023	mg/L	0.602 (0.200)	ND (0.200)	0.856 (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	5.62 (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Nitrate	3/18/2024	mg/L	ND (0.200)	ND (0.200)	0.237 (0.200)	ND (0.200)	ND (0.200)	0.307 (0.200)	ND (0.200)	0.493 (0.200)	ND (0.200)	ND (0.200)	0.314 (0.200)	1.93 (0.200)	ND (0.200)	ND (0.200)
Nitrate	9/17/2024	mg/L	ND (0.200)	ND (0.200)	ND (1.00)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	4.46 (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	0.235 (0.200)	ND (0.200)	ND (0.200)
Nitrite	3/26/2020	mg/L	ND (0.039)	0.0987 (n/a)	ND (0.195)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.195)	ND (0.039)	ND (0.195)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)
Nitrite	9/1/2020	mg/L	0.0695 (n/a)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	3.76 (n/a)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)
Nitrite	3/18/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	ND (0.1)	-----	-----	-----		ND (0.1)	ND (0.1)
Nitrite	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.82 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrite	3/15/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (10)	ND (10)	ND (0.1)	ND (0.1)	ND (10)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrite	9/23/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	5/8/2023	mg/L														
Nitrite	9/26/2023	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Nitrite	3/18/2024	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Nitrite	9/17/2024	mg/L	ND (0.200)	ND (0.200)	ND (1.00)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Phosphorus	3/12/2018	mg/L	ND (0.1)	0.101 (n/a)	ND (0.1)	ND (0.1)	0.458 (n/a)	0.116 (n/a)	ND (0.1)	ND (0.1)	0.184 (n/a)	0.109 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	9/4/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.25 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	0.148 (n/a)	ND (0.1)	0.343 (n/a)	ND (0.1)	ND (0.1)	0.217 (n/a)
Phosphorus	3/18/2019	mg/L	ND (0.1)	0.527 (n/a)	ND (0.1)	ND (0.1)	0.309 (n/a)	0.11 (n/a)	0.161 (n/a)	ND (0.1)	0.186 (n/a)	ND (0.1)	0.165 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	8/27/2019	mg/L	0.0627 (n/a)	0.117 (n/a)	0.0556 (n/a)	ND (0.041)	0.345 (n/a)	0.143 (n/a)	ND (0.041)	0.0628 (n/a)	0.196 (n/a)	0.173 (n/a)	0.39 (n/a)	0.0753 (n/a)	ND (0.041)	0.0577 (n/a)
Phosphorus	3/26/2020	mg/L	ND (0.1)	ND (0.1)	0.0502 (n/a)	ND (0.1)	0.368 (n/a)	0.191 (n/a)	0.0861 (n/a)	0.053 (n/a)	0.208 (n/a)	0.151 (n/a)	2.56 (n/a)	ND (0.1)	0.0967 (n/a)	0.0521 (n/a)
Phosphorus	9/1/2020	mg/L	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	0.30 (n/a)	0.159 (n/a)	ND (0.039)	0.0419 (n/a)	0.199 (n/a)	0.0713 (n/a)	0.257 (n/a)	ND (0.039)	0.0715 (n/a)	0.0414 (n/a)
Phosphorus	3/18/2021	mg/L	ND (0.1)	ND (0.1)	-----	ND (0.1)	0.25 (0.1)	0.14 (0.1)	ND (0.1)	ND (0.1)	0.14 (0.1)	ND (0.1)	-----	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.19 (0.1)	0.11 (0.1)	ND (0.1)	ND (0.1)	0.16 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Phosphorus	3/15/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.271 (0.1)	0.165 (0.1)	ND (0.1)	ND (0.1)	0.223 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Phosphorus	9/23/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.254 (0.1)	0.168 (0.1)	ND (0.1)	ND (0.1)	0.227 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.280 (0.1)	0.199 (0.1)	ND (0.1)	ND (0.1)	0.247 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	5/8/2023	mg/L														
Phosphorus	9/26/2023	mg/L	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	0.215 (0.100)	0.167 (0.100)	ND (0.100)	ND (0.100)	0.197 (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)
Phosphorus	3/18/2024	mg/L	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	0.265 (0.100)	0.213 (0.100)	ND (0.100)	ND (0.100)	0.250 (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)
Phosphorus	9/17/2024	mg/L	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	0.184 (0.100)	0.169 (0.100)	ND (0.100)	ND (0.100)	0.198 (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Potassium	3/12/2018	mg/L	11.5 (n/a)	4.60 (n/a)	3.58 (n/a)	4.32 (n/a)	5760 (n/a)	4500 (n/a)	69.2 (n/a)	3.68 (n/a)	5320 (n/a)	9.34 (n/a)	6.39 (n/a)	1700 (n/a)	8.88 (n/a)	25.2 (n/a)
Potassium	9/4/2018	mg/L	10.8 (n/a)	4.52 (n/a)	4.51 (n/a)	4.17 (n/a)	4950 (n/a)	6050 (n/a)	57.6 (n/a)	4.01 (n/a)	5910 (n/a)	10.2 (n/a)	8.34 (n/a)	1960 (n/a)	10.1 (n/a)	6.44 (n/a)
Potassium	3/18/2019	mg/L	10.8 (n/a)	5.20 (n/a)	4.13 (n/a)	4.35 (n/a)	4360 (n/a)	4680 (n/a)	63.9 (n/a)	5.70 (n/a)	4420 (n/a)	13.0 (n/a)	6.28 (n/a)	1510 (n/a)	9.53 (n/a)	41.7 (n/a)
Potassium	8/27/2019	mg/L	10.6 (n/a)	4.29 (n/a)	4.79 (n/a)	4.53 (n/a)	5570 (n/a)	4630 (n/a)	84.8 (n/a)	4.54 (n/a)	5000 (n/a)	10.3 (n/a)	7.04 (n/a)	1560 (n/a)	8.41 (n/a)	50.7 (n/a)
Potassium	3/26/2020	mg/L	11.0 (n/a)	4.29 (n/a)	4.88 (n/a)	3.93 (n/a)	4720 (n/a)	4600 (n/a)	86.1 (n/a)	4.47 (n/a)	5720 (n/a)	10.4 (n/a)	7.10 (n/a)	1450 (n/a)	9.89 (n/a)	72.9 (n/a)
Potassium	9/1/2020	mg/L	11.5 (n/a)	4.59 (n/a)	4.69 (n/a)	4.02 (n/a)	6380 (n/a)	5800 (n/a)	164 (n/a)	14.1 (n/a)	5280 (n/a)	12.4 (n/a)	6.30 (n/a)	1510 (n/a)	9.53 (n/a)	76.0 (n/a)
Potassium	3/18/2021	mg/L	11.3 (0.5)	6.36 (0.5)	5.05 (0.5)	26.5 (0.5)	4530 (10)	4860 (10)	170 (0.5)	16.7 (0.5)	5220 (25)	11.5 (0.5)	-----	1440 (25)	10.2 (0.5)	95.5 (0.5)
Potassium	9/16/2021	mg/L	10.4 (0.5)	5.28 (0.5)	4.53 (0.5)	4.62 (0.5)	4550 (5)	5020 (5)	9.57 (0.5)	6.23 (0.5)	4800 (5)	170 (0.5)	6.03 (0.5)	1580 (1)	9.62 (0.5)	109 (0.5)
Potassium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Potassium	3/15/2022	mg/L	11.4 (0.5)	4.91 (0.5)	5.23 (0.5)	5.19 (0.05)	4270 (50)	5340 (50)	230 (2)	4.77 (0.5)	4670 (50)	9.79 (0.5)	6.90 (0.58)	1920 (25)	10.2 (0.5)	130 (2)
Potassium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Potassium	9/23/2022	mg/L	10.5 (0.5)	5.63 (0.5)	4.37 (0.5)	4.39 (0.5)	4140 (50)	4950 (50)	270 (2)	5.19 (0.5)	4570 (50)	9.82 (0.5)	6.06 (0.5)	1850 (50)	9.43 (0.5)	162 (3.5)
Potassium	3/20/2023	mg/L	11.5 (0.5)	6.95 (0.5)	4.82 (0.5)	5.90 (0.5)	3420 (50)	4490 (50)	292 (5)	12.3 (0.5)	4040 (50)	13.7 (0.5)	5.71 (0.5)	1870 (50)	9.55 (0.5)	158 (5)
Potassium	5/8/2023	mg/L														
Potassium	9/26/2023	mg/L	11.5 (0.500)	5.89 (0.500)	5.46 (0.500)	4.75 (0.500)	3150 (50.0)	4660 (50.0)	252 (2.00)	16.7 (0.500)	5470 (50.0)	9.40 (0.500)	12.3 (0.500)	1670 (14.0)	10.4 (0.500)	178 (2.00)
Potassium	3/18/2024	mg/L	11.1 (0.500)	7.75 (0.500)	5.25 (0.500)	4.41 (0.500)	2720 (40.0)	3610 (50.0)	220 (2.00)	5.18 (0.500)	3500 (50.0)	9.41 (0.500)	6.51 (0.500)	1720 (14.0)	9.41 (0.500)	195 (2.00)
Potassium	9/17/2024	mg/L	11.6 (0.500)	7.12 (0.500)	4.25 (0.500)	4.32 (0.500)	3190 (22.5)	4000 (31.5)	238 (2.00)	7.08 (0.500)	3500 (25.0)	9.38 (0.500)	5.71 (0.500)	1730 (12.5)	11.0 (0.500)	187 (15.0)
Selenium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Selenium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Selenium	3/18/2019	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.00506 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	0.00214 (n/a)	ND (0.005)	ND (0.005)	ND (0.001)	ND (0.005)	ND (0.005)
Selenium	8/27/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0227 (n/a)	0.00208 (n/a)	ND (0.001)	ND (0.001)	0.00189 (n/a)	ND (0.004)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Selenium	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0194 (n/a)	0.00431 (n/a)	ND (0.02)	ND (0.005)	0.0036 (n/a)	ND (0.005)	ND (0.02)	ND (0.02)	ND (0.005)	ND (0.005)
Selenium	9/1/2020	mg/L	ND (0.001)	0.00107 (n/a)	ND (0.001)	ND (0.001)	0.0283 (n/a)	0.00353 (n/a)	0.00111 (n/a)	ND (0.001)	0.00426 (n/a)	ND (0.001)	0.00119 (n/a)	0.0102 (n/a)	ND (0.001)	ND (0.001)
Selenium	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	0.0274 (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	-----	ND (0.015)	ND (0.015)	ND (0.015)
Selenium	9/16/2021	mg/L	ND (0.015)	0.0168 (0.015)	ND (0.015)	ND (0.015)	0.0156 (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Selenium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Selenium	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Selenium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Selenium	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.035)
Selenium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Selenium	5/8/2023	mg/L														
Selenium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)
Selenium	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Selenium	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Silver	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Silver	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Silver	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00037)	ND (0.001)	ND (0.001)	ND (0.00037)	ND (0.001)	ND (0.001)
Silver	8/27/2019	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)
Silver	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Silver	9/1/2020	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.0007)
Silver	3/18/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	-----	ND (0.007)	ND (0.007)	ND (0.007)
Silver	9/16/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)
Silver	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Silver	3/15/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.01)	ND (0.004)	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.004)
Silver	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Silver	9/23/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	0.00116 (0.001)	ND (0.007)	ND (0.007)	ND (0.004)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.007)
Silver	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.004)	ND (0.001)	ND (0.001)	ND (0.004)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Silver	5/8/2023	mg/L														
Silver	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00400)
Silver	3/18/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)
Silver	9/17/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.0450)	ND (0.0630)	ND (0.00100)	ND (0.00100)	ND (0.0500)	ND (0.00100)	ND (0.00100)	ND (0.0250)	ND (0.00100)	ND (0.0300)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Sodium	3/12/2018	mg/L	40.4 (n/a)	25.5 (n/a)	15.9 (n/a)	22.2 (n/a)	425 (n/a)	399 (n/a)	28.2 (n/a)	16.0 (n/a)	443 (n/a)	47.7 (n/a)	45.4 (n/a)	378 (n/a)	36.7 (n/a)	41.2 (n/a)
Sodium	9/4/2018	mg/L	39.5 (n/a)	24.1 (n/a)	17.9 (n/a)	21.2 (n/a)	339 (n/a)	534 (n/a)	18.0 (n/a)	16.7 (n/a)	468 (n/a)	50.2 (n/a)	51.1 (n/a)	434 (n/a)	43.7 (n/a)	14.1 (n/a)
Sodium	3/18/2019	mg/L	39.7 (n/a)	26.4 (n/a)	19.4 (n/a)	22.1 (n/a)	401 (n/a)	582 (n/a)	38.3 (n/a)	19.6 (n/a)	445 (n/a)	53.1 (n/a)	61.0 (n/a)	359 (n/a)	38.2 (n/a)	46.1 (n/a)
Sodium	8/27/2019	mg/L	39.6 (n/a)	17.0 (n/a)	18.7 (n/a)	22.2 (n/a)	375 (n/a)	397 (n/a)	32.0 (n/a)	18.8 (n/a)	389 (n/a)	53.7 (n/a)	34.1 (n/a)	403 (n/a)	32.5 (n/a)	51.8 (n/a)
Sodium	3/26/2020	mg/L	39.9 (n/a)	14.6 (n/a)	19.5 (n/a)	22.0 (n/a)	387 (n/a)	413 (n/a)	40.6 (n/a)	19.5 (n/a)	415 (n/a)	54.2 (n/a)	250 (n/a)	373 (n/a)	35.3 (n/a)	57.0 (n/a)
Sodium	9/1/2020	mg/L	41.9 (n/a)	19.7 (n/a)	17.7 (n/a)	18.9 (n/a)	375 (n/a)	429 (n/a)	131 (n/a)	26.9 (n/a)	399 (n/a)	58.1 (n/a)	144 (n/a)	465 (n/a)	37.2 (n/a)	58.5 (n/a)
Sodium	3/18/2021	mg/L	39.3 (0.5)	15.4 (0.5)	23.1 (0.5)	21.8 (0.5)	267 (0.5)	354 (0.5)	47.0 (0.5)	19.6 (0.5)	320 (0.5)	51.7 (0.5)	-----	324 (0.5)	40.2 (0.5)	61.8 (0.5)
Sodium	9/16/2021	mg/L	36.8 (0.5)	14.4 (0.5)	18.1 (0.5)	20.9 (0.5)	290 (0.5)	396 (0.5)	53.2 (0.5)	18.9 (0.5)	353 (0.5)	51.2 (0.5)	584 (1)	325 (0.5)	37.0 (0.5)	66.0 (0.5)
Sodium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sodium	3/15/2022	mg/L	41.7 (1)	10.9 (1)	25.4 (1)	22.3 (1)	301 (10)	519 (10)	66.9 (4)	19.1 (1)	384 (10)	55.9 (1)	384 (1)	460 (5)	41.5 (1)	70.3 (4)
Sodium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sodium	9/23/2022	mg/L	36.4 (1)	10.1 (1)	20.2 (1)	19.5 (1)	310 (7.00)	486 (7)	66.1 (4)	18.0 (1)	414 (7)	55.0 (1)	166 (1)	451 (7)	36.8 (1)	81.5 (7)
Sodium	3/20/2023	mg/L	42.8 (1)	18.5 (1)	25.9 (1)	21.9 (1)	228 (1)	305 (1)	70.9 (1)	20.1 (1)	261 (1)	45.8 (1)	103 (1)	308 (1)	32.5 (1)	75.3 (1)
Sodium	5/8/2023	mg/L														
Sodium	9/26/2023	mg/L	36.4 (1.00)	12.1 (1.00)	25.6 (1.00)	23.4 (1.00)	264 (1.00)	424 (4.00)	48.5 (1.00)	25.6 (1.00)	447 (100)	53.7 (1.00)	83.6 (1.00)	378 (1.00)	41.7 (1.00)	81.5 (4.00)
Sodium	3/18/2024	mg/L	39.9 (1.00)	16.0 (1.00)	29.1 (1.00)	23.4 (1.00)	224 (80.0)	329 (100)	48.7 (4.00)	19.6 (1.00)	302 (100)	58.9 (1.00)	97.7 (1.00)	428 (1.00)	37.7 (1.00)	81.6 (1.00)
Sodium	9/17/2024	mg/L	42.9 (1.00)	6.21 (1.00)	22.3 (1.00)	21.1 (1.00)	291 (1.00)	422 (1.00)	52.1 (1.00)	22.1 (1.00)	347 (1.00)	60.2 (1.00)	66.5 (1.00)	360 (1.00)	40.9 (1.00)	74.8 (1.00)
Sulfate	3/12/2018	mg/L	23 (n/a)	374 (n/a)	130 (n/a)	55.6 (n/a)	3420 (n/a)	3430 (n/a)	1060 (n/a)	25.8 (n/a)	3620 (n/a)	272 (n/a)	46.9 (n/a)	3140 (n/a)	72.8 (n/a)	277 (n/a)
Sulfate	9/4/2018	mg/L	24.1 (n/a)	ND (1)	167 (n/a)	45.7 (n/a)	2640 (n/a)	3420 (n/a)	721 (n/a)	21.8 (n/a)	3040 (n/a)	266 (n/a)	47.1 (n/a)	2940 (n/a)	84.0 (n/a)	278 (n/a)
Sulfate	3/18/2019	mg/L	27.6 (n/a)	446 (n/a)	121 (n/a)	55.4 (n/a)	2860 (n/a)	3430 (n/a)	1030 (n/a)	56.2 (n/a)	3300 (n/a)	283 (n/a)	48.3 (n/a)	3050 (n/a)	76.4 (n/a)	320 (n/a)
Sulfate	8/27/2019	mg/L	29.3 (n/a)	368 (n/a)	156 (n/a)	52.1 (n/a)	3290 (n/a)	3420 (n/a)	971 (n/a)	24.1 (n/a)	3460 (n/a)	287 (n/a)	61.8 (n/a)	2850 (n/a)	67.1 (n/a)	362 (n/a)
Sulfate	3/26/2020	mg/L	23.0 (n/a)	428 (n/a)	162 (n/a)	53.6 (n/a)	3250 (n/a)	3470 (n/a)	1110 (n/a)	76.6 (n/a)	3490 (n/a)	284 (n/a)	157 (n/a)	3030 (n/a)	87.0 (n/a)	426 (n/a)
Sulfate	9/1/2020	mg/L	22.9 (n/a)	373 (n/a)	217 (n/a)	50.6 (n/a)	2770 (n/a)	3150 (n/a)	981 (n/a)	98.0 (n/a)	3150 (n/a)	257 (n/a)	86.3 (n/a)	2800 (n/a)	81.4 (n/a)	417 (n/a)
Sulfate	3/18/2021	mg/L	21.6 (2)	355 (50)	198 (20)	51.8 (5)	2640 (200)	3990 (200)	975 (50)	32.3 (5)	3480 (200)	270 (20)	-----	3430 (500)	126 (20)	529 (50)
Sulfate	9/16/2021	mg/L	19.9 (2)	263 (20)	175 (20)	40.3 (5)	2140 (200)	3250 (200)	232 (20)	32.0 (5)	2740 (200)	846 (100)	64.9 (20)	2450 (500)	133 (20)	506 (50)
Sulfate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sulfate	3/15/2022	mg/L	22.3 (1)	244 (10)	238 (10)	158 (5)	2180 (100)	4650 (100)	1020 (100)	25.7 (1)	2650 (100)	220 (20)	76.1 (1)	3170 (100)	196 (10)	570 (10)
Sulfate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sulfate	9/23/2022	mg/L	20.4 (1)	350 (5)	143 (5)	47.5 (1)	548 (50)	777 (50)	948 (50)	116 (5)	2520 (50)	199 (20)	52.9 (1)	2770 (50)	128 (5)	2010 (50)
Sulfate	3/20/2023	mg/L	22.8 (1)	463 (10)	230 (10)	55.8 (1)	2010 (50)	3220 (50)	1050 (20)	108 (10)	2540 (50)	397 (10)	61.3 (1)	3010 (100)	141 (10)	593 (10)
Sulfate	5/8/2023	mg/L														
Sulfate	9/26/2023	mg/L	19.9 (1.00)	305 (50.0)	194 (50.0)	47.6 (1.00)	1930 (200)	3280 (200)	805 (100)	147 (5.00)	2600 (200)	192 (50.0)	55.8 (1.00)	2590 (200)	135 (50.0)	630 (100)
Sulfate	3/18/2024	mg/L	21.6 (1.00)	389 (50.0)	206 (50.0)	53.0 (1.00)	1970 (50.0)	3040 (50.0)	917 (50.0)	36.5 (1.00)	2480 (50.0)	201 (50.0)	56.6 (1.00)	2940 (50.0)	143 (50.0)	664 (50.0)
Sulfate	9/17/2024	mg/L	22.9 (1.00)	233 (20.0)	180 (5.00)	50.0 (1.00)	1870 (100)	3030 (100)	770 (100)	138 (20.0)	2290 (100)	196 (20.0)	51.3 (1.00)	2750 (100)	137 (20.0)	672 (20.0)
Thallium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Thallium	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.002)	ND (0.001)	ND (0.1)	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Thallium	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0027)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)
Thallium	8/27/2019	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.0027)	ND (0.0027)	0.000331 (n/a)	ND (0.00027)	ND (0.0027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Thallium	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Thallium	9/1/2020	mg/L	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00182)	ND (0.00182)	ND (0.00026)	ND (0.00026)	ND (0.0052)	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00026)
Thallium	3/18/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	-----	ND (0.02)	ND (0.02)	ND (0.02)
Thallium	9/16/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Thallium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Thallium	3/15/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.01)	ND (0.004)	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.004)
Thallium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Thallium	9/23/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.007)	ND (0.004)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.007)
Thallium	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)
Thallium	5/8/2023	mg/L														
Thallium	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00400)	0.0495 (0.00400)	ND (0.00100)	ND (0.100)	0.00840 (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00400)
Thallium	3/18/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)
Thallium	9/17/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Total Dissolved Solids	3/12/2018	mg/L	336 (n/a)	866 (n/a)	540 (n/a)	408 (n/a)	13000 (n/a)	11000 (n/a)	1830 (n/a)	414 (n/a)	12400 (n/a)	868 (n/a)	386 (n/a)	6040 (n/a)	442 (n/a)	736 (n/a)
Total Dissolved Solids	9/4/2018	mg/L	406 (n/a)	1100 (n/a)	596 (n/a)	390 (n/a)	10000 (n/a)	11100 (n/a)	1450 (n/a)	374 (n/a)	10600 (n/a)	868 (n/a)	458 (n/a)	6220 (n/a)	474 (n/a)	844 (n/a)
Total Dissolved Solids	3/18/2019	mg/L	416 (n/a)	1140 (n/a)	524 (n/a)	436 (n/a)	10400 (n/a)	11000 (n/a)	2140 (n/a)	382 (n/a)	11100 (n/a)	944 (n/a)	528 (n/a)	6240 (n/a)	438 (n/a)	896 (n/a)
Total Dissolved Solids	8/27/2019	mg/L	434 (n/a)	994 (n/a)	594 (n/a)	432 (n/a)	13100 (n/a)	11300 (n/a)	2130 (n/a)	388 (n/a)	11500 (n/a)	960 (n/a)	524 (n/a)	5840 (n/a)	436 (n/a)	948 (n/a)
Total Dissolved Solids	3/26/2020	mg/L	404 (n/a)	1010 (n/a)	596 (n/a)	410 (n/a)	12800 (n/a)	11900 (n/a)	2530 (n/a)	332 (n/a)	12800 (n/a)	940 (n/a)	1020 (n/a)	6260 (n/a)	422 (n/a)	1040 (n/a)
Total Dissolved Solids	9/1/2020	mg/L	416 (n/a)	1080 (n/a)	634 (n/a)	420 (n/a)	12800 (n/a)	12000 (n/a)	2840 (n/a)	352 (n/a)	12100 (n/a)	944 (n/a)	594 (n/a)	6130 (n/a)	446 (n/a)	1010 (n/a)
Total Dissolved Solids	3/18/2021	mg/L	415 (10)	935 (13.3)	780 (10)	444 (10)	10500 (333)	11800 (333)	2530 (66.7)	402 (10)	12300 (333)	921 (13.3)	-----	6730 (167)	577 (10)	1200 (20)
Total Dissolved Solids	9/16/2021	mg/L	407 (10)	961 (10)	630 (10)	431 (10)	10000 (333)	12000 (333)	861 (13.3)	394 (10)	11200 (333)	2460 (40)	1680 (40)	6490 (143)	568 (10)	1180 (13.3)
Total Dissolved Solids	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	3/15/2022	mg/L	330 (50)	740 (50)	692 (50)	378 (50)	8560 (500)	8400 (2500)	2570 (50)	312 (50)	8400 (2500)	746 (50)	1090 (250)	5620 (500)	514 (50)	1230 (50)
Total Dissolved Solids	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	9/23/2022	mg/L	354 (50)	954 (50)	494 (50)	360 (50)	8860 (250)	11200 (250)	2590 (250)	234 (50)	9830 (250)	794 (50)	806 (50)	6330 (250)	556 (50)	1370 (50)
Total Dissolved Solids	3/20/2023	mg/L	338 (50)	928 (50)	730 (50)	388 (50)	8080 (250)	7300 (2500)	2700 (250)	308 (50)	9440 (250)	720 (50)	640 (50)	6290 (250)	502 (50)	1380 (50)
Total Dissolved Solids	5/8/2023	mg/L														
Total Dissolved Solids	9/26/2023	mg/L	422 (50.0)	882 (50.0)	682 (50.0)	440 (50.0)	7780 (500)	12400 (500)	2510	338 (50.0)	8980 (250)	762 (762)	548 (50.0)	5980 (250)	540 (50.0)	1420 (50.0)
Total Dissolved Solids	3/18/2024	mg/L	390 (50.0)	966 (50.0)	684 (50.0)	392 (50.0)	7840 (500)	10700 (500)	2460 (250)	398 (50.0)	8800 (250)	724 (762)	582 (50.0)	6170 (250)	574 (50.0)	1150 (250)
Total Dissolved Solids	9/17/2024	mg/L	418 (50.0)	822 (50.0)	602 (50.0)	390 (50.0)	7380 (250)	6600 (2500)	2690 (250)	350 (50.0)	8700 (250)	728 (50.0)	526 (50.0)	6350 (250)	530 (50.0)	1520 (50.0)
Vanadium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Vanadium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.01)	0.0109 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)
Vanadium	3/18/2019	mg/L	ND (0.005)	0.0107 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.00192 (n/a)	ND (0.005)	ND (0.005)	ND (0.0041)	ND (0.005)	ND (0.005)
Vanadium	8/27/2019	mg/L	0.00177 (n/a)	0.0024 (n/a)	ND (0.00082)	ND (0.00082)	0.00499 (n/a)	ND (0.00082)	ND (0.00082)	ND (0.00082)	0.00158 (n/a)	0.00432 (n/a)	0.00685 (n/a)	0.00151 (n/a)	ND (0.00082)	0.00105 (n/a)
Vanadium	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.005)	0.00307 (n/a)	0.0013 (n/a)	0.0304 (n/a)	ND (0.02)	ND (0.005)	ND (0.005)
Vanadium	9/1/2020	mg/L	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)	0.00913 (n/a)	0.00202 (n/a)	ND (0.00085)	0.0017 (n/a)	0.00266 (n/a)	0.000881 (n/a)	0.0077 (n/a)	ND (0.00425)	ND (0.00085)	ND (0.00085)
Vanadium	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Vanadium	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Vanadium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vanadium	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Vanadium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vanadium	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.035)
Vanadium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vanadium	5/8/2023	mg/L														
Vanadium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)
Vanadium	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Vanadium	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Zinc	3/12/2018	mg/L	0.0261 (n/a)	ND (0.02)	ND (0.02)	ND (0.02)	ND (2.0)	ND (2)	0.023 (n/a)	ND (0.02)	ND (2)	ND (0.08)	ND (0.02)	ND (1)	ND (0.02)	0.0213 (n/a)
Zinc	9/4/2018	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.04)	ND (0.02)	ND (0.02)	ND (0.04)	0.0783 (n/a)	ND (0.02)	ND (0.02)	0.064 (n/a)
Zinc	3/18/2019	mg/L	ND (0.02)	0.58 (n/a)	0.102 (n/a)	0.026 (n/a)	ND (0.02)	ND (0.02)	0.0974 (n/a)	0.0208 (n/a)	ND (0.1)	0.0453 (n/a)	ND (0.02)	ND (0.01)	ND (0.02)	ND (0.02)
Zinc	8/27/2019	mg/L	0.0102 (n/a)	0.011 (n/a)	ND (0.01)	0.0133 (n/a)	ND (0.01)	0.0121 (n/a)	0.0165 (n/a)	0.0167 (n/a)	ND (n/a)	0.0146 (n/a)	0.0436 (n/a)	ND (0.01)	ND (0.01)	ND (0.01)
Zinc	3/26/2020	mg/L	0.0194 (n/a)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.2)	ND (0.08)	ND (0.08)	ND (0.02)	ND (0.02)	0.0222 (n/a)	0.307 (n/a)	ND (0.08)	ND (0.02)	ND (0.02)
Zinc	9/1/2020	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0408 (n/a)	ND (0.01)	ND (0.01)	ND (0.01)
Zinc	3/18/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	-----	ND (0.05)	ND (0.05)	ND (0.05)
Zinc	9/16/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Zinc	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Zinc	3/15/2022	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.2)	ND (0.2)	ND (0.08)	ND (0.02)	ND (0.2)	ND (0.02)	ND (0.002)	ND (0.1)	ND (0.02)	ND (0.08)
Zinc	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Zinc	9/23/2022	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.14)	ND (0.14)	ND (0.08)	ND (0.02)	ND (0.14)	ND (0.02)	ND (0.02)	ND (0.140)	ND (0.02)	ND (0.14)
Zinc	3/20/2023	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Zinc	5/8/2023	mg/L														
Zinc	9/26/2023	mg/L	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (2.00)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0800)
Zinc	3/18/2024	mg/L	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (1.60)	ND (2.00)	ND (0.0800)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)
Zinc	9/17/2024	mg/L	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.900)	ND (1.26)	ND (0.0200)	ND (0.0200)	ND (1.00)	ND (0.0200)	ND (0.0200)	ND (0.500)	ND (0.0200)	ND (0.600)

Notes:
mg/L - milligrams per Liter
ug/L - micrograms per Liter
umhos/cm - microhos per centimeter
n/a - not applicable
SU - standard unit
ND = non detect
(10) - detection limit
NS - Not Sampled
*Stope Well MW-2CR was sampled 8/12/24 by Geosyntec

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
pH	3/12/2018	SU	7.7	10.4	8.1	-----	-----	-----		-----	12.2	Dry	Dry	-----	13.2	7.6	-----	8.5	Dry
pH	9/4/2018	SU	7.7	11.1	7.3	-----	-----	-----		-----	12.2	Dry	Dry	-----	13.2	6.7	-----	8.5	Dry
pH	3/18/2019	SU	7.55	10.61	7.3	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	6.7	-----	-----	Dry
pH	8/27/2019	SU	7.9	12.4	7.6	-----	-----	-----		-----	12.9	Dry	Dry	-----	12.9	8.5	-----	-----	Dry
pH	3/26/2020	SU	7.24	10.46	-----	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
pH	9/1/2020	SU	7.41	11.13	7.38	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
pH	3/18/2021	SU	9.38	12.5	9.08	-----	-----	-----		5.96	9.07	Dry	Dry	-----	8.02	8.06	7.74	8.24	Dry
pH	9/16/2021	SU	7.4	10.9	7.3	7.4	7.5	-----		7.6	-----	Dry	Dry	-----	-----	7.14	6.89	-----	Dry
pH	10/8/2021	SU	-----	-----	-----	-----	-----	7.3		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	3/15/2022	SU	7.27	10.95	6.92	7.22	7.02	-----		7.87	13.68	Dry	Dry	Dry	13.32	7.46	-----	7.86	Dry
pH	4/19/2022	SU	-----	-----	-----	-----	-----	7.82		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	9/23/2022	SU	7.63	11.17	7.74	7.16	7.16	-----		7.85	12.92	Dry	Dry	Dry	Dry	8.8	-----	12.39	9.79
pH	3/20/2023	SU	6.72	10.76	6.78	7.32	7.18	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
pH	5/8/2023	SU	----	----	----	----	----	7.67	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	9/26/2023	SU	7.30	10.90	6.82	7.08	6.92			7.96	12.79	Dry	Dry	Dry	12.88	12.38	6.37	Dry	9.82
pH	3/18/2024	SU	7.15	10.56	7.02	7.01	6.84	-----		8.46	12.50	Dry	Dry	Dry	12.90	12.70	7.40	12.71	10.25
pH	9/17/2024	SU	5.67	5.34	6.44	7.05	6.93	7.48	8.0	-----	10.61	Dry	Dry	Dry	10.58	5.17	Dry	11.69	9.40
Specific Conductivity	3/12/2018	umhos/cm	630 (n/a)	14200 (n/a)	831 (n/a)	-----	-----	-----		-----	8720 (n/a)	Dry	Dry	-----	13280 (n/a)	3950 (n/a)	-----	652 (n/a)	Dry
Specific Conductivity	9/4/2018	umhos/cm	632 (n/a)	14700 (n/a)	1066 (n/a)	-----	-----	-----		-----	8720 (n/a)	Dry	Dry	-----	13280 (n/a)	4810 (n/a)	-----	652 (n/a)	Dry
Specific Conductivity	3/18/2019	umhos/cm	622 (n/a)	15070 (n/a)	7930 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	4810 (n/a)	-----	-----	Dry
Specific Conductivity	8/27/2019	umhos/cm	541 (n/a)	11190 (n/a)	740 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	8640 (n/a)	2090 (n/a)	-----	-----	Dry
Specific Conductivity	3/26/2020	umhos/cm	611 (n/a)	15895 (n/a)	-----	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Specific Conductivity	9/1/2020	umhos/cm	613 (n/a)	11842 (n/a)	788 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Specific Conductivity	3/18/2021	umhos/cm	360 (n/a)	10400 (1)	720 (1)	-----	-----	-----		1370 (1)	3100 (1)	Dry	Dry	-----	9000 (1)	1470 (1)	2800 (1)	2300 (1)	Dry
Specific Conductivity	9/16/2021	umhos/cm	586 (n/a)	16630 (n/a)	1037 (n/a)	6480 (n/a)	581 (n/a)	-----		1995 (n/a)	-----	Dry	Dry	-----	1040 (n/a)	1100 (n/a)	3400 (n/a)	-----	Dry
Specific Conductivity	10/8/2021	umhos/cm	-----	-----	-----	-----	-----	-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	3/15/2022	umhos/cm	586 (N/A)	15130 (N/A)	1037 (N/A)	655 (N/A)	575 (N/A)	-----		1551 (N/A)	61090 (N/A)	Dry	Dry	Dry	30990 (N/A)	5490 (N/A)	-----	6968 (N/A)	Dry
Specific Conductivity	4/19/2022	umhos/cm	-----	-----	-----	-----	-----	0.0315		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/23/2022	umhos/cm	915 (N/A)	23267 (N/A)	1447 (N/A)	1027 (N/A)	1194 (N/A)	-----		2904 (N/A)	113739 (N/A)	Dry	Dry	Dry	Dry	30600 (N/A)	-----	7185 (N/A)	84421 (N/A)
Specific Conductivity	3/20/2023	umhos/cm	671 (N/A)	15820 (N/A)	890 (N/A)	787 (N/A)	1243 (N/A)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Specific Conductivity	5/8/2023	umhos/cm	-----	-----	-----	-----	-----	26950	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/26/2023	umhos/cm	671	15380	753	695	714	-----		2699	79900	Dry	Dry	Dry	21730	24740	12070	Dry	60340
Specific Conductivity	3/18/2024	umhos/cm	580	13500	709	626	638	-----		2224	34100	Dry	Dry	Dry	19910	8116	8700	5996	48820
Specific Conductivity	9/17/2024	umhos/cm	588	13154	685	13	657	22410	-----	-----	28834	Dry	Dry	Dry	11120	4559	Dry	3365	24150
Alkalinity, Total	9/1/2020	mg/L	319 (n/a)	1400 (n/a)	405 (n/a)	-----	-----	-----		221 (n/a)	982 (n/a)	Dry	Dry	-----	-----	-----	-----	Dry	Dry
Alkalinity, Total	9/16/2021	mg/L	293 (20)	1520 (100)	388 (20)	345 (20)	375 (20)	-----		3390 (600)	205 (20)	Dry	Dry	-----	28800 (600)	726 (20)	462 (20)	Dry	Dry
Alkalinity, Total	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----		-----	-----	-----	-----	-----	-----	-----	-----	Dry	-----
Alkalinity, Total	3/15/2022	mg/L	304 (10)	1770 (10)	392 (10)	343 (10)	382 (10)	-----		186 (10)	2210 (10)	Dry	Dry	Dry	3380 (10)	578 (10)	412 (10)	Dry	Dry
Alkalinity, Total	4/19/2022	mg/L	-----	-----	-----	-----	-----	1440 (10)		-----	-----	-----	-----	-----	-----	-----	-----	Dry	-----
Alkalinity, Total	9/23/2022	mg/L	302 (10)	1680 (25)	409 (10)	390 (10)	390 (10)	-----		202 (10)	2810 (25)	Dry	Dry	Dry	Dry	295 (25)	-----	Dry	1910 (25)
Alkalinity, Total	3/20/2023	mg/L	323 (5)	1720 (5)	412 (5)	365 (5)	396 (5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	Dry	-----
Alkalinity, Total	5/8/2023	mg/L	----	----	----	----	----	435 (5)	5030 (1750)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	9/26/2023	mg/L	312 (5.00)	1590 (5.00)	396 (5.00)	360 (5.00)	380 (5.00)	-----		205 (5.00)	3140 (25.0)	Dry	Dry	Dry	3830 (25.0)	1800 (25.0)	421 (5.00)	Dry	1870 (5.00)
Alkalinity, Total	3/18/2024	mg/L	294 (5.00)	1450 (5.00)	374 (5.00)	332 (5.00)	358 (5.00)	-----		356 (5.00)	1390 (5.00)	Dry	Dry	Dry	3020 (25.0)	1220 (5.00)	351 (5.00)	1270 (5.00)	1040 (5.00)
Alkalinity, Total	9/17/2024	mg/L	291 (5.00)	1310 (5.00)	363 (5.00)	327 (5.00)	357 (5.00)	513	5640	356 (5.00)	2790 (5.00)	Dry	Dry	Dry	3310 (50.0)	1280 (5.00)	336 (5.00)	459 (5.00)	1780 (5.00)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Alkalinity, Bicarbonate	9/16/2021	mg/L	293 (20)	ND (100)	388 (20)	345 (20)	375 (20)	-----		ND (600)	205 (20)	Dry	Dry	-----	ND (600)	726 (20)	462 (20)	108 (n/a)	Dry
Alkalinity, Bicarbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	440 (40)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	3/15/2022	mg/L	304 (10)	49.0 (10)	392 (10)	343 (10)	382 (10)	-----		186 (10)	ND (10)	Dry	Dry	Dry	ND (10)	578 (10)	412 (10)	47 (10)	Dry
Alkalinity, Bicarbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	1440 (10)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/23/2022	mg/L	302 (10)	ND (25)	409 (10)	390 (10)	390 (10)	-----		202 (10)	ND (25)	Dry	Dry	Dry	Dry	295 (25)	-----	ND (10)	863 (25)
Alkalinity, Bicarbonate	3/20/2023	mg/L	323 (5)	98.5 (5)	412 (5)	365 (5)	396 (5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	5/8/2023	mg/L	-----	-----	-----	-----	-----	435 (5)	5030 (1750)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/26/2023	mg/L	312 (5.00)	85.7 (5.00)	396 (5.00)	360 (5.00)	380 (5.00)	-----		205 (5.00)	ND (25.0)	Dry	Dry	Dry	ND (25.0)	ND (25.0)	421 (5.00)	Dry	879 (5.00)
Alkalinity, Bicarbonate	3/18/2024	mg/L	294 (5.00)	72.8 (5.00)	374 (5.00)	332 (5.00)	358 (5.00)	-----		168 (5.00)	ND (5.00)	Dry	Dry	Dry	ND (25.0)	ND (5.00)	351 (5.00)	ND (5.00)	ND (5.00)
Alkalinity, Bicarbonate	9/17/2024	mg/L	291 (5.00)	105 (5.00)	363 (5.00)	327 (5.00)	357 (5.00)	513	5640	-----	ND (5.00)	Dry	Dry	Dry	ND (50.0)	ND (5.00)	336 (5.00)	ND (5.00)	469 (5.00)
Alkalinity, Carbonate	9/16/2021	mg/L	ND (20)	1470 (100)	ND (20)	ND (20)	ND (20)	-----		ND (600)	ND (20)	Dry	Dry	-----	15800 (600)	ND (20)	ND (20)	-----	Dry
Alkalinity, Carbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (40)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	3/15/2022	mg/L	ND (10)	1720 (10)	ND (10)	ND (10)	ND (10)	-----		ND (10)	862 (10)	Dry	Dry	Dry	314 (10)	ND (10)	ND (10)	ND (10)	Dry
Alkalinity, Carbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	1440 (10)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	9/23/2022	mg/L	ND (10)	1680 (25)	ND (10)	ND (10)	ND (10)	-----		ND (10)	1140 (25)	Dry	Dry	Dry	Dry	ND (25)	-----	101 (10)	1040 (25)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	1630 (5)	ND (5)	ND (0.5)	ND (5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	1630 (5)	ND (5)	ND (0.5)	ND (5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Alkalinity, Carbonate	5/8/2023	mg/L						ND (5)	ND (1750)										
Alkalinity, Carbonate	9/26/2023	mg/L	ND (5.00)	1510 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	-----		ND (5.00)	1510 (25.0)	Dry	Dry	Dry	331 (25.0)	945 (25.0)	ND (5.00)	Dry	994 (5.00)
Alkalinity, Carbonate	3/18/2024	mg/L	ND (5.00)	1380 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	-----		ND (5.00)	492 (5.00)	Dry	Dry	Dry	772 (25.0)	77.0 (5.00)	ND (5.00)	61.0 (5.00)	680 (5.00)
Alkalinity, Carbonate	9/17/2024	mg/L	ND (5.00)	1210 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.0)	ND (1790)	-----	1040 (5.00)	Dry	Dry	Dry	94.6 (50.0)	46.8 (5.00)	ND (5.00)	31.9 (5.00)	1310 (5.00)
Bromate	3/18/2021	ug/L	ND (500)	ND (500)	ND (500)	-----	-----	-----		ND (500)	ND (500)	Dry	Dry	ND (500)	ND (500)	ND (500)	ND (500)	ND	Dry
Bromate	9/16/2021	ug/L	ND (5)	ND (100)	ND (5)	ND (10)	ND (5)	-----		ND (10)	ND (200)	Dry	Dry	-----	ND (100)	ND (100)	ND (20)	-----	Dry
Bromate	10/8/2021	ug/L	-----	-----	-----	-----	-----	ND (100)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bromate	3/15/2022	ug/L	6.64 (5)	ND (50)	11.7 (5)	ND (50)	ND (5)	-----		ND (5)	ND (100)	Dry	Dry	Dry	ND (500)	ND (50)	ND (500)	ND (500)	Dry
Bromate	4/19/2022	mg/L	-----	-----	-----	-----	-----	ND (125)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bromate	9/23/2022	ug/L	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	-----		ND (5)	ND (500)	Dry	Dry	Dry	Dry	ND (500)	-----	ND (500)	ND (500)
Bromate	3/20/2023	ug/L	36.8 (5)	ND (125)	ND (5)	49.9 (5)	ND (5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Bromate	5/8/2023	ug/L						ND (250)	ND (3500)										
Bromate	9/26/2023	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	-----		ND (1.00)	ND (500)	Dry	Dry	Dry	ND (500)	ND (500)	ND (1.00)	Dry	ND (500)
Bromate	3/18/2024	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	-----		ND (1.00)	ND (10.0)	Dry	Dry	Dry	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (10.0)
Bromate	9/17/2024	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (20000)	ND (14600)	-----	ND (10.0)	Dry	Dry	Dry	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)
Aluminium	3/12/2018	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	-----	-----	-----		-----	ND (0.05)	Dry	Dry	-----	ND (2.5)	0.207 (n/a)	-----	1.35 (n/a)	Dry
Aluminium	9/4/2018	mg/L	2.41 (n/a)	ND (0.05)	ND (0.05)	-----	-----	-----		0.578 (n/a)	ND (5)	Dry	Dry	-----	2.68 (n/a)	ND (0.5)	-----	-----	Dry
Aluminium	3/18/2019	mg/L	ND (0.05)	ND (0.027)	ND (0.05)	-----	-----	-----		ND (0.05)	0.887 (n/a)	Dry	Dry	-----	0.858 (n/a)	0.0807 (n/a)	-----	-----	Dry
Aluminium	8/27/2019	mg/L	0.0801 (n/a)	0.0367 (n/a)	0.0857 (n/a)	-----	-----	-----		0.0388 (n/a)	0.446 (n/a)	Dry	Dry	-----	0.217 (n/a)	ND (0.27)	-----	-----	Dry
Aluminium	3/26/2020	mg/L	ND (0.05)	ND (0.5)	0.0362 (n/a)	-----	-----	-----		0.0335 (n/a)	0.405 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Aluminium	9/1/2020	mg/L	0.0335 (n/a)	0.0272 (n/a)	0.0158 (n/a)	-----	-----	-----		0.0366 (n/a)	1.99 (n/a)	Dry	Dry	-----	0.146 (n/a)	-----	-----	-----	Dry
Aluminium	3/18/2021	mg/L	0.167 (0.075)	ND (0.075)	0.0958 (0.075)	-----	-----	-----		0.207 (0.075)	0.564 (0.075)	Dry	Dry	7.55 (0.15)	0.83 (0.075)	0.371 (0.075)	4.26 (0.075)	1.65 (0.075)	Dry
Aluminium	9/16/2021	mg/L	0.374 (0.075)	ND (0.075)	0.085 (0.075)	2.48 (0.075)	0.695 (0.075)	-----		0.42 (0.075)	8.58 (0.075)	Dry	Dry	-----	0.269 (0.075)	0.236 (0.075)	0.802 (0.075)	-----	Dry
Aluminium	10/8/2021	mg/L	-----	-----	-----	-----	-----	76.4 (3.75)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Aluminium	3/15/2022	mg/L	ND (0.05)	ND (0.5)	ND (0.05)	0.406 (0.05)	ND (0.05)	-----		ND (0.2)	5.15 (1)	Dry	Dry	Dry	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	Dry
Aluminium	4/19/2022	mg/L	-----	-----	-----	-----	-----	16.1 (0.05)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Aluminium	9/23/2022	mg/L	ND (0.05)	ND (0.35)	ND (0.05)	0.132 (0.05)	ND (0.05)	-----		ND (0.35)	3.20 (0.5)	Dry	Dry	Dry	Dry	ND (0.5)	-----	0.231 (0.05)	1.13 (0.5)
Aluminium	3/20/2023	mg/L	ND (0.05)	ND (0.5)	ND (0.05)	0.0527 (0.05)	ND (0.05)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Aluminium	5/8/2023	mg/L						15.9 (0.05)	1710 (70)										
Aluminium	9/26/2023	mg/L	0.162 (0.0500)	ND (0.0500)	ND (0.0500)	1.39 (0.0500)	0.389 (0.0500)	-----		ND (0.200)	1.51 (0.500)	Dry	Dry	Dry	ND (0.500)	6.02 (5.00)	ND (0.500)	Dry	ND (0.500)
Aluminium	3/18/2024	mg/L	-----	-----	-----	-----	-----	-----		-----	-----	Dry	Dry	Dry	-----	-----	-----	-----	-----
Aluminium	9/17/2024	mg/L	-----	-----	-----	-----	-----	11.4	2750	-----	-----	Dry	Dry	Dry	-----	-----	-----	-----	-----

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Antimony	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Antimony	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.1)	Dry	Dry	-----	ND (0.003)	ND (0.01)	-----	-----	Dry
Antimony	3/18/2019	mg/L	ND (0.001)	0.000809 (n/a)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.0053)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Antimony	8/27/2019	mg/L	ND (0.00053)	ND (0.00053)	0.000833 (n/a)	-----	-----	-----		ND (0.00053)	ND (0.0053)	Dry	Dry	-----	ND (0.00053)	0.000585 (n/a)	-----	-----	Dry
Antimony	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	-----	-----	-----		0.000696 (n/a)	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Antimony	9/1/2020	mg/L	ND (0.00051)	0.00101 (n/a)	ND (0.00051)	-----	-----	-----		ND (0.0005)	0.000827 (n/a)	Dry	Dry	-----	0.000602 (n/a)	-----	-----	-----	Dry
Antimony	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	-----	-----	-----		ND (0.015)	ND (0.015)	Dry	Dry	ND (0.03)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	Dry
Antimony	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	-----		ND (0.015)	ND (0.015)	Dry	Dry	-----	ND (0.015)	ND (0.015)	ND (0.015)	-----	Dry
Antimony	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.75)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Antimony	3/15/2022	mg/L	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.02)	-----		ND (0.008)	ND (0.04)	Dry	Dry	Dry	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Antimony	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.00458 (0.002)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Antimony	9/23/2022	mg/L	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.014)	ND (0.02)	Dry	Dry	Dry	Dry	ND (0.02)	-----	ND (0.002)	ND (0.02)
Antimony	3/20/2023	mg/L	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Antimony	5/8/2023	mg/L						0.00225 (0.002)	ND (2.8)										
Antimony	9/26/2023	mg/L	ND (0.002)	ND (0.008)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.008)	ND (0.02)				ND (0.002)	ND (0.002)	ND (0.002)	Dry	ND (0.02)
Antimony	3/18/2024	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	-----		ND (0.00200)	ND (0.00200)				ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00400)
Antimony	9/17/2024	mg/L	ND (0.00200)	ND (0.126)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.00324	ND (21.5)	-----	ND (0.100)				ND (0.0500)	ND (0.00400)	ND (0.0400)	ND (0.00800)	ND (0.0800)
Arsenic	3/12/2018	mg/L	ND (0.002)	0.0034 (n/a)	ND (0.002)	-----	-----	-----		-----	0.0137 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.002)	-----	ND (0.008)	Dry
Arsenic	9/4/2018	mg/L	0.00223 (n/a)	ND (0.2)	ND (0.002)	-----	-----	-----		ND (0.002)	0.211 (n/a)	Dry	Dry	-----	0.00527 (n/a)	ND (0.002)	-----	-----	Dry
Arsenic	3/18/2019	mg/L	ND (0.002)	0.00551 (n/a)	ND (0.002)	-----	-----	-----		ND (0.002)	0.112 (n/a)	Dry	Dry	-----	0.00299 (n/a)	ND (0.002)	-----	-----	Dry
Arsenic	8/27/2019	mg/L	ND (0.00075)	0.00422 (n/a)	0.00104 (n/a)	-----	-----	-----		ND (0.00075)	0.113 (n/a)	Dry	Dry	-----	ND (0.00525)	0.00442 (n/a)	-----	-----	Dry
Arsenic	3/26/2020	mg/L	ND (0.002)	0.0128 (n/a)	ND (0.002)	-----	-----	-----		ND (0.002)	0.0977 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Arsenic	9/1/2020	mg/L	ND (0.00088)	0.0242 (n/a)	ND (0.00088)	-----	-----	-----		ND (0.00088)	0.0441 (n/a)	Dry	Dry	-----	0.00182 (n/a)	-----	-----	-----	Dry
Arsenic	3/18/2021	mg/L	ND (0.01)	0.0402 (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)	0.0208 (0.01)	Dry	Dry	0.044 (0.01)	ND (0.01)	ND (0.01)	0.0111 (0.01)	0.0127 (0.01)	Dry
Arsenic	9/16/2021	mg/L	ND (0.01)	0.0332 (0.01)	ND (0.01)	0.0113 (0.01)	ND (0.01)	-----		ND (0.01)	0.245 (0.1)	Dry	Dry	-----	ND (0.1)	ND (0.1)	ND (0.01)	-----	Dry
Arsenic	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.746 (0.5)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arsenic	3/15/2022	mg/L	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.008)	0.246 (0.04)	Dry	Dry	Dry	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Arsenic	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0411 (0.002)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arsenic	9/23/2022	mg/L	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.014)	0.103 (0.04)	Dry	Dry	Dry	Dry	0.0119 (0.02)	-----	0.00298 (0.02)	0.0212 (0.02)
Arsenic	3/20/2023	mg/L	ND (0.002)	ND (0.02)	ND (0.005)	ND (0.002)	ND (0.002)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Arsenic	5/8/2023	mg/L						0.0114 (0.002)	ND (2.8)										
Arsenic	9/26/2023	mg/L	ND (0.00200)	0.0113 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	-----		ND (0.00800)	0.180 (0.0200)	Dry	Dry		ND (0.0200)	0.234 (0.200)	ND (0.0200)	Dry	0.0201 (0.0200)
Arsenic	3/18/2024	mg/L	ND (0.00200)	0.00814 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	-----		ND (0.00200)	0.0800 (0.0200)	Dry	Dry		0.00300 (0.00200)	0.0322 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.400)
Arsenic	9/17/2024	mg/L	ND (0.00200)	0.0113 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.038	4.04	-----	0.131 (0.00200)	Dry	Dry		ND (0.00200)	0.00614 (0.00200)	ND (0.00200)	0.00207 (0.00200)	ND (0.0400)
Barium	3/12/2018	mg/L	0.0675 (n/a)	0.00938 (n/a)	0.0959 (n/a)	-----	-----	-----		-----	0.0216 (n/a)	Dry	Dry	-----	0.149 (n/a)	0.0848 (n/a)	-----	0.104 (n/a)	Dry
Barium	9/4/2018	mg/L	0.092 (n/a)	ND (0.2)	0.114 (n/a)	-----	-----	-----		0.0442 (n/a)	ND (0.2)	Dry	Dry	-----	0.354 (n/a)	0.211 (n/a)	-----	-----	Dry
Barium	3/18/2019	mg/L	0.0682 (n/a)	0.00886 (n/a)	0.115 (n/a)	-----	-----	-----		0.0215 (n/a)	0.0331 (n/a)	Dry	Dry	-----	0.165 (n/a)	0.0459 (n/a)	-----	-----	Dry
Barium	8/27/2019	mg/L	0.0702 (n/a)	0.00853 (n/a)	0.108 (n/a)	-----	-----	-----		0.0359 (n/a)	0.0522 (n/a)	Dry	Dry	-----	0.167 (n/a)	0.171 (n/a)	-----	-----	Dry
Barium	3/26/2020	mg/L	0.071 (n/a)	0.0156 (n/a)	0.103 (n/a)	-----	-----	-----		0.0276 (n/a)	0.0421 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Barium	9/1/2020	mg/L	0.0687 (n/a)	0.0137 (n/a)	0.109 (n/a)	-----	-----	-----		0.0463 (n/a)	0.0351 (n/a)	Dry	Dry	-----	0.159 (n/a)	-----	-----	-----	Dry
Barium	3/18/2021	mg/L	0.0721 (0.005)	0.0134 (0.005)	0.116 (0.005)	-----	-----	-----		0.0294 (0.005)	0.0272 (0.005)	Dry	Dry	2.66 (0.005)	0.25 (0.005)	0.0987 (0.005)	0.0948 (0.005)	0.236 (0.005)	Dry
Barium	9/16/2021	mg/L	0.0659 (0.005)	0.0114 (0.005)	0.108 (0.005)	0.0769 (0.005)	0.141 (0.005)	-----		0.0443 (0.005)	0.0243 (0.005)	Dry	Dry	-----	0.177 (0.005)	0.468 (0.005)	0.0969 (0.005)	-----	Dry
Barium	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.284 (0.25)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Barium	3/15/2022	mg/L	0.0734 (0.002)	ND (0.02)	0.112 (0.002)	0.0728 (0.002)	0.138 (0.002)	-----		0.0235 (0.008)	0.0475 (0.04)	Dry	Dry	Dry	0.180 (0.02)	0.226 (0.02)	0.108 (0.02)	0.180 (0.02)	Dry
Barium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.268 (0.002)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Barium	9/23/2022	mg/L	0.0746 (0.002)	ND (0.014)	0.121 (0.002)	0.0626 (0.002)	0.119 (0.002)	-----		0.038	0.0579 (0.002)	Dry	Dry	Dry	Dry	0.138 (0.002)	-----	0.183 (0.002)	0.0681(0.002)
Barium	3/20/2023	mg/L	0.0729 (0.002)	ND (0.02)	0.111 (0.002)	0.0580 (0.002)	0.134 (0.002)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Barium	5/8/2023	mg/L						0.220 (0.002)	17.2 (2.8)										
Barium	9/26/2023	mg/L	0.0655 (0.00200)	0.0107 (0.00200)	0.116 (0.00200)	0.0782 (0.00200)	0.141 (0.00200)	-----		0.0391 (0.00800)	0.171 (0.0200)	Dry	Dry		0.114 (0.0200)	0.786 (0.0200)	0.121 (0.0200)	Dry	0.0765 (0.0200)
Barium	3/18/2024	mg/L	0.0698 (0.00200)	0.0127 (0.00200)	0.137 (0.00200)	0.0643 (0.00200)	0.148 (0.00200)	-----		0.0196 (0.00200)	ND (0.400)	Dry	Dry		0.175 (0.00200)	0.587 (0.00200)	0.112 (0.00200)	0.544 (0.00200)	ND (0.400)
Barium	9/17/2024	mg/L	0.0753 (0.00200)	0.0160 (0.00200)	0.119 (0.00200)	0.0643 (0.00200)	0.140 (0.00200)	0.122	28.3	-----	0.108 (0.100)	Dry	Dry		0.126 (0.00200)	0.447 (0.00200)	0.0953 (0.00200)	0.415 (0.00200)	0.0986 (0.0400)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Beryllium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Beryllium	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.1)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Beryllium	3/18/2019	mg/L	ND (0.001)	ND (0.00027)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.00027)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Beryllium	8/27/2019	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	-----	-----	-----		ND (0.00027)	ND (0.00027)	Dry	Dry	-----	ND (0.00189)	ND (0.0027)	-----	-----	Dry
Beryllium	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Beryllium	9/1/2020	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	-----	-----	-----		ND (0.00027)	ND (0.00027)	Dry	Dry	-----	ND (0.00027)	-----	-----	-----	Dry
Beryllium	3/18/2021	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.001)	Dry	Dry	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	Dry
Beryllium	9/16/2021	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.001)	ND (0.001)	Dry	Dry	-----	ND (0.001)	ND (0.001)	ND (0.001)	-----	Dry
Beryllium	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.0012 (n/a)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Beryllium	3/15/2022	mg/L	ND (0.001)	ND (0.02)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.004)	ND (0.02)	Dry	Dry	Dry	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	Dry
Beryllium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0012 (0.001)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Beryllium	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.007)	ND (0.01)	Dry	Dry	Dry	Dry	ND (0.001)	-----	ND (0.001)	ND (0.01)
Beryllium	3/20/2023	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Beryllium	5/8/2023	mg/L						ND (0.001)	ND (1.4)										
Beryllium	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00400)	ND (0.0100)	Dry	Dry		ND (0.0100)	ND (0.0100)	ND (0.0100)	Dry	ND (0.0100)
Beryllium	3/18/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00100)	ND (0.200)	Dry	Dry		ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.200)
Beryllium	9/17/2024	mg/L	ND (0.00100)	ND (0.0630)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.08)	ND (1.54)	-----	ND (0.0500)	Dry	Dry		ND (0.0250)	ND (0.0200)	ND (0.00100)	ND (0.00100)	ND (0.0200)
Boron	3/12/2018	mg/L	0.29 (n/a)	0.322 (n/a)	0.205 (n/a)	-----	-----	-----		-----	ND (0.2)	Dry	Dry	-----	ND (10)	ND (0.2)	-----	ND (0.8)	Dry
Boron	9/4/2018	mg/L	0.453 (n/a)	ND (20)	0.239 (n/a)	-----	-----	-----		0.441 (n/a)	ND (20)	Dry	Dry	-----	ND (0.05)	ND (0.2)	-----	-----	Dry
Boron	3/18/2019	mg/L	0.272 (n/a)	0.295 (n/a)	0.205 (n/a)	-----	-----	-----		0.224 (n/a)	ND (0.11)	Dry	Dry	-----	ND (0.2)	ND (0.2)	-----	-----	Dry
Boron	8/27/2019	mg/L	0.28 (n/a)	0.298 (n/a)	0.238 (n/a)	-----	-----	-----		0.345 (n/a)	ND (0.11)	Dry	Dry	-----	ND (0.77)	ND (1.1)	-----	-----	Dry
Boron	3/26/2020	mg/L	0.273 (n/a)	ND (2)	0.247 (n/a)	-----	-----	-----		0.244 (n/a)	ND (2)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Boron	9/1/2020	mg/L	0.244 (n/a)	ND (0.8)	0.247 (n/a)	-----	-----	-----		0.384 (n/a)	ND (0.32)	Dry	Dry	-----	ND (0.8)	-----	-----	-----	Dry
Boron	3/18/2021	mg/L	0.249 (0.1)	0.467 (0.1)	0.245 (0.1)	-----	-----	-----		0.266 (0.1)	ND (0.1)	Dry	Dry	ND (0.1)	ND (0.1)	0.112 (0.1)	ND (0.1)	ND (0.1)	Dry
Boron	9/16/2021	mg/L	0.216 (0.1)	0.403 (0.1)	0.226 (0.1)	0.373 (0.1)	0.217 (0.1)	-----		0.336 (0.1)	ND (0.1)	Dry	Dry	-----	ND (0.1)	0.157 (0.1)	ND (0.1)	-----	Dry
Boron	10/8/2021	mg/L	-----	-----	-----	-----	-----	13.3 (n/a)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Boron	3/15/2022	mg/L	0.241 (0.1)	ND (1)	0.234 (0.1)	0.384 (0.1)	0.219 (0.1)	-----		ND (0.4)	ND (2)	Dry	Dry	Dry	ND (1)	ND (1)	ND (1)	ND (1)	Dry
Boron	4/19/2022	mg/L	-----	-----	-----	-----	-----	12.6 (2)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Boron	9/23/2022	mg/L	0.236 (0.1)	ND (0.7)	0.273 (0.1)	0.394 (0.1)	0.231 (0.1)	-----		ND (0.7)	ND (1)	Dry	Dry	Dry	Dry	ND (1)	-----	ND (0.1)	ND (1)
Boron	3/20/2023	mg/L	0.231 (0.1)	ND (1)	0.190 (0.1)	0.301 (0.1)	0.205 (0.1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Boron	5/8/2023	mg/L						10.3 (10)	ND (140)										
Boron	9/26/2023	mg/L	0.260 (0.100)	ND (0.400)	0.266 (0.100)	0.408 (0.100)	0.239 (0.100)	-----		0.611 (0.400)	ND (1.00)	Dry	Dry		ND (1.00)	ND (1.00)	ND (1.00)	Dry	ND (1.00)
Boron	3/18/2024	mg/L	0.274 (0.100)	0.404 (0.400)	0.274 (0.100)	0.400 (0.100)	0.225 (0.100)	-----		0.562 (0.100)	ND (20.0)	Dry	Dry		ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (20.0)
Boron	9/17/2024	mg/L	0.244 (0.100)	0.322 (0.100)	0.242 (0.100)	0.364 (0.100)	0.209 (0.100)	ND (8.0)	ND (154)	-----	ND (5.00)	Dry	Dry		ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)
Cadmium	3/12/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cadmium	9/4/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	-----	-----	-----		ND (0.0005)	ND (0.0005)	Dry	Dry	-----	ND (0.025)	ND (0.0005)	-----	ND (0.002)	Dry
Cadmium	3/18/2019	mg/L	ND (0.0005)	ND (0.00077)	ND (0.0005)	-----	-----	-----		ND (0.0005)	ND (0.05)	Dry	Dry	-----	ND (0.0005)	ND (0.005)	-----	-----	Dry
Cadmium	8/27/2019	mg/L	ND (0.000039)	0.000059 (n/a)	ND (0.0005)	-----	-----	-----		ND (0.000039)	ND (0.00077)	Dry	Dry	-----	ND (0.0005)	ND (0.0005)	-----	-----	Dry
Cadmium	3/26/2020	mg/L	ND (0.0001)	ND (0.001)	ND (0.0001)	-----	-----	-----		ND (0.0001)	ND (0.001)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cadmium	9/1/2020	mg/L	ND (0.000049)	0.000076 (n/a)	ND (0.000067)	-----	-----	-----		ND (0.000049)	ND (0.000049)	Dry	Dry	-----	0.000094 (n/a)	-----	-----	-----	Dry
Cadmium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)	ND (0.005)	Dry	Dry	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	Dry
Cadmium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.005)	ND (0.005)	Dry	Dry	-----	ND (0.005)	ND (0.005)	ND (0.005)	-----	Dry
Cadmium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.25)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cadmium	3/15/2022	mg/L	ND (0.0001)	ND (0.001)	NA (0.0001)	ND (0.0001)	ND (0.0001)	-----		ND (0.0004)	ND (0.002)	Dry	Dry	Dry	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	Dry
Cadmium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0075 (0.0001)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cadmium	9/23/2022	mg/L	ND (0.0001)	ND (0.0007)	0.000151 (0.0001)	ND (0.0001)	ND (0.0001)	-----		ND (0.0007)	ND (0.0001)	Dry	Dry	Dry	Dry	0.000102 (0.0001)	-----	ND (0.0001)	0.000720 (0.0001)
Cadmium	3/20/2023	mg/L	ND (0.0001)	ND (0.001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Cadmium	5/8/2023	mg/L						0.00632 (0.0002)	ND (1.4)										
Cadmium	9/26/2023	mg/L	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)			ND (0.0002)	ND (0.002)	Dry	Dry		ND (0.002)	0.0044 (0.002)	ND (0.002)	Dry	ND (0.002)
Cadmium	3/18/2024	mg/L	-----	-----	-----	-----	-----			-----	-----	Dry	Dry		-----	-----	-----	-----	-----
Cadmium	9/17/2024	mg/L	-----	-----	-----	-----	-----	ND (0.016)	ND (1.54)	-----	-----	Dry	Dry		-----	-----	-----	-----	-----

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Calcium	3/12/2018	mg/L	76.3 (n/a)	4.29 (n/a)	86.4 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Calcium	9/4/2018	mg/L	165 (n/a)	ND (20)	109 (n/a)	-----	-----	-----		175 (n/a)	33.0 (n/a)	Dry	Dry	-----	872 (n/a)	445 (n/a)	-----	28.9 (n/a)	Dry
Calcium	3/18/2019	mg/L	75.3 (n/a)	1.85 (n/a)	90.3 (n/a)	-----	-----	-----		187 (n/a)	ND (20)	Dry	Dry	-----	869 (n/a)	432 (n/a)	-----	-----	Dry
Calcium	8/27/2019	mg/L	80.8 (n/a)	2.33 (n/a)	96.8 (n/a)	-----	-----	-----		188 (n/a)	53.5 (n/a)	Dry	Dry	-----	890 (n/a)	272 (n/a)	-----	-----	Dry
Calcium	3/26/2020	mg/L	69.6 (n/a)	14.0 (n/a)	100 (n/a)	-----	-----	-----		164 (n/a)	42.4 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Calcium	9/1/2020	mg/L	68.8 (n/a)	3.09 (n/a)	97.9 (n/a)	-----	-----	-----		153 (n/a)	27.1 (n/a)	Dry	Dry	-----	603 (n/a)	-----	-----	-----	Dry
Calcium	3/18/2021	mg/L	73 (0.2)	1.62 (0.2)	101 (0.2)	-----	-----	-----		210 (0.2)	25.8 (0.2)	Dry	Dry	1440 (0.4)	636 (0.2)	181 (0.2)	458 (0.2)	280 (0.2)	Dry
Calcium	9/16/2021	mg/L	68.6 (0.2)	1.30 (0.2)	97.2 (0.2)	78.2 (0.2)	86.3 (0.2)	-----		202 (0.2)	12.0 (0.2)	Dry	Dry	-----	579 (0.2)	547 (0.2)	270 (0.2)	-----	Dry
Calcium	10/8/2021	mg/L	-----	-----	-----	-----	-----	1320 (n/a)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Calcium	3/15/2022	mg/L	76.0 (0.5)	ND (5)	105 (0.5)	87.9 (0.5)	91.4 (0.5)	-----		228 (2)	73.7 (10)	Dry	Dry	Dry	606 (5)	438 (5)	677 (5)	589 (5)	Dry
Calcium	4/19/2022	mg/L	-----	-----	-----	-----	-----	792 (10)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Calcium	9/23/2022	mg/L	76.2 (0.5)	ND (3.5)	87.7 (0.5)	73.3 (0.5)	78.6 (0.5)	-----		257 (3.5)	82.9 (0.5)	Dry	Dry	Dry	Dry	120 (0.5)	-----	396 (0.5)	78.7 (0.5)
Calcium	3/20/2023	mg/L	81.0 (0.5)	ND (5)	87.2 (0.5)	68.5 (0.5)	90.0 (0.5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Calcium	5/8/2023	mg/L						364 (0.5)	249000 (420)										
Calcium	9/26/2023	mg/L	75.4 (0.500)	ND(2.00)	91.2 (0.500)	86.3 (0.500)	98.3 (0.500)	-----		233 (2.00)	297 (50.0)	Dry	Dry	Dry	512 (50.0)	997 (50.0)	1220 (5.00)	Dry	24.2 (5.00)
Calcium	3/18/2024	mg/L	74.3 (0.500)	ND (50.0)	102 (0.500)	76.4 (0.500)	97.7 (0.500)	-----		237 (0.005)	ND (100)	Dry	Dry	Dry	593 (50.0)	734 (10.0)	1150 (10.0)	493 (2.00)	ND (100)
Calcium	9/17/2024	mg/L	96.4 (0.500)	2.01 (0.500)	105 (0.500)	86.0 (0.500)	95.9 (0.500)	653	341000	-----	82.2 (25.0)	Dry	Dry	Dry	805 (12.5)	1170 (10.0)	1300 (5.00)	333 (0.500)	54.0 (10.0)
Chloride	3/12/2018	mg/L	1.72 (n/a)	1630 (n/a)	20.1 (n/a)	-----	-----	-----		-----	1320 (n/a)	Dry	Dry	-----	471 (n/a)	672 (n/a)	-----	52.7 (n/a)	Dry
Chloride	9/4/2018	mg/L	ND (1)	1500 (n/a)	47.5 (n/a)	-----	-----	-----		29.8 (n/a)	8790 (n/a)	Dry	Dry	-----	471 (n/a)	952 (n/a)	-----	52.7 (n/a)	Dry
Chloride	3/18/2019	mg/L	ND (5)	1630 (n/a)	6.31 (n/a)	-----	-----	-----		32.5 (n/a)	6530 (n/a)	Dry	Dry	-----	108 (n/a)	952 (n/a)	-----	-----	Dry
Chloride	8/27/2019	mg/L	1.14 (n/a)	1600 (n/a)	18.9 (n/a)	-----	-----	-----		46.3 (n/a)	10100 (n/a)	Dry	Dry	-----	81.4 (n/a)	ND (5)	-----	-----	Dry
Chloride	3/26/2020	mg/L	1.17 (n/a)	1640 (n/a)	16.1 (n/a)	-----	-----	-----		54.3 (n/a)	822 (n/a)	Dry	Dry	-----	81.4 (n/a)	-----	-----	-----	Dry
Chloride	9/1/2020	mg/L	1.32 (n/a)	1580 (n/a)	14.3 (n/a)	-----	-----	-----		74.7 (n/a)	4240 (n/a)	Dry	Dry	-----	1080 (n/a)	-----	-----	-----	Dry
Chloride	3/18/2021	mg/L	1.50 (1)	1760 (200)	21.5 (2)	-----	-----	-----		77.5 (10)	810 (50)	Dry	Dry	157 (50)	968 (50)	129 (20)	791 (50)	825 (50)	Dry
Chloride	9/16/2021	mg/L	1.40 (1)	1540 (200)	6.20 (1)	3.50 (1)	1.60 (1)	-----		89.1 (20)	4760 (1000)	Dry	Dry	-----	1140 (200)	4150 (500)	744 (100)	-----	Dry
Chloride	10/8/2021	mg/L	-----	-----	-----	-----	-----	2660 (500)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chloride	3/15/2022	mg/L	1.15 (1)	1780 (100)	23.7 (1)	5.36 (1)	1.73 (1)	-----		51.1 (1)	12500 (200)	Dry	Dry	Dry	3270 (100)	3770 (100)	1320 (100)	2730 (100)	Dry
Chloride	4/19/2022	mg/L	-----	-----	-----	-----	-----	3170 (100)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chloride	9/23/2022	mg/L	1.83 (1)	1640 (50)	8.39 (1)	5.34 (1)	3.10 (1)	-----		62.6 (1)	15600 (200)	Dry	Dry	Dry	Dry	3530 (50)	-----	485 (50)	11200 (200)
Chloride	3/20/2023	mg/L	1.27 (1)	1580 (100)	13.0 (1)	5.58 (1)	1.50 (1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Chloride	5/8/2023	mg/L						2800 (100)	6300 (339)										
Chloride	9/26/2023	mg/L	1.04 (1.00)	1490 (200)	3.11 (1.00)	5.03 (1.00)	1.19 (1.00)	-----		138 (100)	15800 (200)	Dry	Dry	Dry	2230 (200)	3630 (200)	2950 (200)	Dry	11100 (200)
Chloride	3/18/2024	mg/L	1.14 (1.00)	1600 (50.0)	8.42 (1.00)	5.14 (1.00)	1.32 (1.00)	-----		125 (50.0)	6910 (100)	Dry	Dry	Dry	1660 (50.0)	679 (50.0)	2660 (50.0)	121 (50.0)	10700 (200)
Chloride	9/17/2024	mg/L	3.11 (1.00)	1420 (100)	2.82 (1.00)	6.53 (1.00)	1.68 (1.00)	1980	5960	-----	11600 (1000)	Dry	Dry	Dry	592 (100)	470 (100)	2460 (100)	301 (20.0)	9450 (500)
Chromium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Chromium	9/4/2018	mg/L	0.00854 (n/a)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)	0.00638 (n/a)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Chromium	3/18/2019	mg/L	ND (0.005)	ND (0.00098)	ND (0.005)	-----	-----	-----		ND (0.005)	ND (0.5)	Dry	Dry	-----	0.00913 (n/a)	ND (0.05)	-----	-----	Dry
Chromium	8/27/2019	mg/L	0.00204 (n/a)	ND (0.00098)	ND (0.005)	-----	-----	-----		ND (0.00098)	0.00135 (n/a)	Dry	Dry	-----	ND (0.005)	ND (0.005)	-----	-----	Dry
Chromium	3/26/2020	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	-----	-----	-----		ND (0.005)	ND (0.05)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Chromium	9/1/2020	mg/L	ND (0.0011)	0.00229 (n/a)	ND (0.0011)	-----	-----	-----		ND (0.0011)	0.0778 (n/a)	Dry	Dry	-----	0.00279 (n/a)	-----	-----	-----	Dry
Chromium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	0.0073 (0.005)	-----	-----	-----		ND (0.005)	0.0068 (0.005)	Dry	Dry	0.0198 (0.005)	ND (0.005)	ND (0.005)	0.009 (0.005)	ND (0.005)	Dry
Chromium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.005)	0.514 (0.005)	Dry	Dry	-----	ND (0.005)	ND (0.005)	ND (0.005)	-----	Dry
Chromium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.25)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chromium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.0005)	-----		ND (0.02)	2.51 (0.1)	Dry	Dry	Dry	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Chromium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0336 (0.1)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chromium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.035)	1.25 (0.005)	Dry	Dry	Dry	Dry	ND (0.005)	-----	ND (0.005)	0.00950 (0.005)
Chromium	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.001)	ND (0.005)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Chromium	5/8/2023	mg/L						0.0193 (0.005)	4.9 (4.2)										
Chromium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)	1.03 (0.0500)	Dry	Dry	Dry	ND (0.0500)	ND (0.0500)	ND (0.0500)	Dry	ND (0.0500)
Chromium	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.00500)	0.602 (0.005)	Dry	Dry	Dry	ND (0.005)	0.0489 (0.00500)	ND (0.00500)	0.0119 (0.00500)	ND (1.00)
Chromium	9/17/2024	mg/L	ND (0.00500)	ND (0.315)	ND (0.00500)	ND (0.00500)	ND (0.00500)	0.0332	8.44	-----	0.755 (0.250)	Dry	Dry	Dry	ND (0.125)	ND (0.100)	ND (0.00500)	0.00788 (0.00500)	ND (0.100)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Cobalt	3/12/2018	mg/L	ND (0.0005)	ND (0.0005)	0.00195 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cobalt	9/4/2018	mg/L	0.00376 (n/a)	ND (0.0005)	0.0026 (n/a)	-----	-----	-----		0.00154 (n/a)	0.00134 (n/a)	Dry	Dry	-----	ND (0.025)	0.0187 (n/a)	-----	0.00368 (n/a)	Dry
Cobalt	3/18/2019	mg/L	ND (0.0005)	0.00034 (n/a)	0.000861 (n/a)	-----	-----	-----		0.00123 (n/a)	ND (0.05)	Dry	Dry	-----	0.00313 (n/a)	0.00696 (n/a)	-----	-----	Dry
Cobalt	8/27/2019	mg/L	0.000176 (n/a)	0.000228 (n/a)	0.00134 (n/a)	-----	-----	-----		0.000512 (n/a)	ND (0.00091)	Dry	Dry	-----	0.000846 (n/a)	0.00418 (n/a)	-----	-----	Dry
Cobalt	3/26/2020	mg/L	ND (0.0005)	ND (0.005)	0.0107 (n/a)	-----	-----	-----		0.00133 (n/a)	ND (0.005)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cobalt	9/1/2020	mg/L	ND (0.000091)	0.000371 (n/a)	0.00645 (n/a)	-----	-----	-----		0.000719 (n/a)	0.00194 (n/a)	Dry	Dry	-----	0.00101 (n/a)	-----	-----	-----	Dry
Cobalt	3/18/2021	mg/L	ND (0.005)	ND (0.005)	0.0195 (0.005)	-----	-----	-----		ND (0.005)	ND (0.005)	Dry	Dry	0.0094 (0.005)	ND (0.005)	0.0112 (0.005)	0.0063 (0.005)	0.0067 (0.005)	Dry
Cobalt	9/16/2021	mg/L	ND (0.005)	ND (0.005)	0.021 (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.005)	ND (0.005)	Dry	Dry	-----	ND (0.005)	0.0445 (0.005)	ND (0.005)	-----	Dry
Cobalt	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.25)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cobalt	3/15/2022	mg/L	ND (0.005)	ND (0.005)	0.00914 (0.0005)	ND (0.0005)	ND (0.0005)	-----		0.00214 (0.002)	0.0146 (0.01)	Dry	Dry	Dry	ND (0.005)	0.0288 (0.005)	ND (0.005)	ND (0.005)	Dry
Cobalt	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0751 (0.0005)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cobalt	9/23/2022	mg/L	ND (0.0005)	ND (0.0005)	0.0578 (0.005)	ND (0.0005)	ND (0.0005)	-----		ND (0.0035)	0.00879 (0.005)	Dry	Dry	Dry	Dry	0.00188 (0.005)	-----	0.00261 (0.0005)	0.00630 (0.0005)
Cobalt	3/20/2023	mg/L	ND (0.0005)	ND (0.005)	0.00291 (0.005)	ND (0.0005)	ND (0.0005)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Cobalt	5/8/2023	mg/L						0.0377 (0.0005)	2.89 (1.4)										
Cobalt	9/26/2023	mg/L	ND (0.000500)	ND (0.000500)	0.00331 (0.000500)	0.000526 (0.000500)	ND (0.000500)	-----		ND (0.00200)	0.00896 (0.00500)	Dry	Dry	Dry	ND (0.00500)	0.0136 (0.00500)	0.00747 (0.00500)	Dry	ND (0.00500)
Cobalt	3/18/2024	mg/L	ND (0.000500)	ND (0.000500)	0.0709 (0.000500)	ND (0.000500)	ND (0.000500)	-----		ND (0.000500)	0.00420 (0.00500)	Dry	Dry	Dry	0.000899 (0.0005	0.0100 (0.00500)	0.00698 (0.000500)	0.00578 (0.000500)	ND (0.100)
Cobalt	9/17/2024	mg/L	0.000596 (0.000500	ND (0.000500)	0.00135 (0.000500)	ND (0.000500)	ND (0.000500)	0.0294	6.72	-----	ND (0.0250)	Dry	Dry	Dry	ND (0.0125)	ND (0.0100)	0.00780 (0.000500)	0.00375 (0.000500)	ND (0.0100)
Copper	3/12/2018	mg/L	ND (0.005)	0.00995 (n/a)	ND (0.005)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Copper	9/4/2018	mg/L	0.0226 (n/a)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)	ND (0.005)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Copper	3/18/2019	mg/L	ND (0.005)	ND (0.002)	ND (0.005)	-----	-----	-----		ND (0.005)	ND (0.5)	Dry	Dry	-----	0.00485 (n/a)	ND (0.05)	-----	-----	Dry
Copper	8/27/2019	mg/L	ND (0.002)	ND (0.002)	ND (0.005)	-----	-----	-----		ND (0.002)	ND (0.002)	Dry	Dry	-----	ND (0.005)	ND (0.005)	-----	-----	Dry
Copper	3/26/2020	mg/L	ND (0.005)	ND (0.05)	0.00944 (n/a)	-----	-----	-----		ND (0.005)	ND (0.05)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Copper	9/1/2020	mg/L	0.00338 (n/a)	ND (0.0015)	0.00458 (n/a)	-----	-----	-----		ND (0.0015)	0.0197 (n/a)	Dry	Dry	-----	0.0117 (n/a)	-----	-----	-----	Dry
Copper	3/18/2021	mg/L	ND (0.01)	ND (0.01)	0.0112 (0.01)	-----	-----	-----		ND (0.01)	0.0194 (0.01)	Dry	Dry	0.0333 (0.01)	0.0173 (0.01)	ND (0.01)	0.0128 (0.01)	0.0122 (0.01)	Dry
Copper	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----		ND (0.01)	0.0615 (0.01)	Dry	Dry	-----	0.0134 (0.01)	ND (0.01)	ND (0.01)	-----	Dry
Copper	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.50)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Copper	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.02)	0.285 (0.1)	Dry	Dry	Dry	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Copper	4/19/2022	mg/L	-----	-----	-----	-----	-----	ND (0.1)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Copper	9/23/2022	mg/L	ND (0.005)	ND (0.035)	0.0101 (0.0005)	ND (0.005)	ND (0.005)	-----		ND (0.035)	0.0725 (0.005)	Dry	Dry	Dry	Dry	ND (0.005)	-----	0.0102 (0.005)	0.0334 (0.005)
Copper	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Copper	5/8/2023	mg/L						0.0220 (0.005)	ND (4.2)										
Copper	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)	0.0797 (0.0500)	Dry	Dry	Dry	ND (0.0500)	ND (0.0500)	ND (0.0500)	Dry	0.0632 (0.0500)
Copper	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	0.0135 (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.00500)	0.0436 (0.005)	Dry	Dry	Dry	ND (0.00500)	0.0421 (0.00500)	ND (0.00500)	0.0495 (0.00500)	ND (1.00)
Copper	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	0.0227	6.78	-----	ND (0.250)	Dry	Dry	Dry	ND (0.125)	ND (0.100)	ND (0.00500)	0.0232 (0.00500)	ND (0.100)
Fluoride	3/12/2018	mg/L	0.315 (n/a)	2.96 (n/a)	0.307 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Fluoride	9/4/2018	mg/L	0.236 (n/a)	2.50 (n/a)	ND (0.5)	-----	-----	-----		ND (0.1)	0.181 (n/a)	Dry	Dry	-----	0.698 (n/a)	ND (0.1)	-----	1.47 (n/a)	Dry
Fluoride	3/18/2019	mg/L	ND (0.5)	ND (0.45)	0.227 (n/a)	-----	-----	-----		ND (0.5)	ND (0.1)	Dry	Dry	-----	0.678 (n/a)	ND (0.1)	-----	-----	Dry
Fluoride	8/27/2019	mg/L	ND (0.045)	3.08 (n/a)	ND (0.5)	-----	-----	-----		ND (0.045)	ND (0.5)	Dry	Dry	-----	ND (0.5)	207 (n/a)	-----	-----	Dry
Fluoride	3/26/2020	mg/L	0.329 (n/a)	3.27 (n/a)	0.275 (n/a)	-----	-----	-----		0.281 (n/a)	0.98 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Fluoride	9/1/2020	mg/L	0.37 (n/a)	2.81 (n/a)	0.345 (n/a)	-----	-----	-----		0.0568 (n/a)	13.1 (n/a)	Dry	Dry	-----	0.30 (n/a)	-----	-----	-----	Dry
Fluoride	3/18/2021	mg/L	0.39 (0.2)	3.30 (0.2)	0.34 (0.2)	-----	-----	-----		0.40 (0.2)	0.72 (0.2)	Dry	Dry	0.66 (0.2)	1.10 (0.2)	0.55 (0.2)	0.36 (0.2)	0.24 (0.2)	Dry
Fluoride	9/16/2021	mg/L	0.35 (0.2)	0.60 (0.2)	0.31 (0.2)	0.43 (0.2)	0.39 (0.2)	-----		0.42 (0.2)	4.50 (0.2)	Dry	Dry	-----	0.88 (0.2)	0.31 (0.2)	0.33 (0.2)	-----	Dry
Fluoride	10/8/2021	mg/L	-----	-----	-----	-----	-----	14.7 (4)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Fluoride	3/15/2022	mg/L	0.128 (0.1)	ND (10)	ND (0.1)	0.186 (0.1)	ND (0.1)	-----		ND (2)	ND (10)	Dry	Dry	Dry	ND (10)	ND (10)	ND (10)	ND (10)	Dry
Fluoride	4/19/2022	mg/L	-----	-----	-----	-----	-----	5.31 (10)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Fluoride	9/23/2022	mg/L	0.292 (0.1)	5.36 (0.1)	0.105 (0.1)	0.195 (0.1)	0.199 (0.1)	-----		0.317 (0.1)	32 (1)	Dry	Dry	Dry	Dry	5.73 (0.1)	-----	ND (0.1)	3.79 (0.1)
Fluoride	3/20/2023	mg/L	0.338 (0.1)	2.29 (0.1)	ND (0.357)	0.388 (0.1)	0.367 (0.1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Fluoride	5/8/2023	mg/L						ND (20)	ND (67.9)										
Fluoride	9/26/2023	mg/L	0.252 (0.200)	7.28 (0.200)	0.220 (0.200)	0.295 (0.200)	0.240 (0.200)	-----		0.604 (0.200)	ND (1.00)	Dry	Dry	Dry	ND (1.00)	1.36 (1.00)	ND (1.00)	Dry	1.57 (1.00)
Fluoride	3/18/2024	mg/L	0.305 (0.200)	2.06 (0.200)	ND (0.200)	0.354 (0.200)	0.240 (0.200)	-----		0.374 (0.200)	0.286 (0.200)	Dry	Dry	Dry	0.227 (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Fluoride	9/17/2024	mg/L	0.306 (0.200)	1.61 (0.200)	0.284 (0.200)	0.460 (0.200)	0.276 (0.200)	9.17	ND (68)	-----	ND (1.00)	Dry	Dry	Dry	0.635 (0.200)	0.230 (0.200)	ND (0.200)	0.209 (0.200)	ND (0.200)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Lead	3/12/2018	mg/L	ND (0.0005)	0.00083 (n/a)	ND (0.0005)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lead	9/4/2018	mg/L	0.014 (n/a)	ND (0.05)	ND (0.0005)	-----	-----	-----		0.00098 (n/a)	ND (0.0005)	Dry	Dry	-----	0.0938 (n/a)	ND (0.0005)	-----	0.00481 (n/a)	Dry
Lead	3/18/2019	mg/L	ND (0.0005)	ND (0.0027)	ND (0.0005)	-----	-----	-----		ND (0.0005)	ND (0.05)	Dry	Dry	-----	0.103 (n/a)	ND (0.005)	-----	-----	Dry
Lead	8/27/2019	mg/L	ND (0.00027)	ND (0.0027)	ND (0.0005)	-----	-----	-----		ND (0.00027)	ND (0.0027)	Dry	Dry	-----	0.0888 (n/a)	ND (0.0005)	-----	-----	Dry
Lead	3/26/2020	mg/L	ND (0.0005)	ND (0.005)	0.000584 (n/a)	-----	-----	-----		ND (0.0005)	ND (0.005)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lead	9/1/2020	mg/L	0.00019 (n/a)	0.000131 (n/a)	0.000458 (n/a)	-----	-----	-----		0.000129 (n/a)	ND (0.0044)	Dry	Dry	-----	0.132 (n/a)	-----	-----	-----	Dry
Lead	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)	ND (0.01)	Dry	Dry	0.38 (0.01)	0.102 (0.01)	ND (0.01)	0.0115 (0.01)	ND (0.01)	Dry
Lead	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----		ND (0.01)	ND (0.01)	Dry	Dry	-----	0.108 (0.01)	ND (0.01)	ND (0.01)	-----	Dry
Lead	10/8/2021	mg/L	-----	-----	-----	-----	-----	3.56 (0.5)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lead	3/15/2022	mg/L	ND (0.0005)	ND (0.005)	ND (0.0005)	0.00886 (0.0005)	ND (0.0005)	-----		ND (0.002)	ND (0.01)	Dry	Dry	Dry	0.100 (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	Dry
Lead	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.133 (0.0005)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lead	9/23/2022	mg/L	ND (0.0005)	ND (0.0035)	0.000724 (0.0005)	0.0006 (0.0005)	ND (0.0005)	-----		ND (0.0035)	ND (0.005)	Dry	Dry	Dry	Dry	0.00127 (0.0005)	-----	0.000531 (0.005)	0.0276 (0.005)
Lead	3/20/2023	mg/L	ND (0.0005)	ND (0.005)	0.000544 (0.0005)	0.000706 (0.005)	ND (0.0005)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Lead	5/8/2023	mg/L						0.0323 (0.0005)	51.8 (7)										
Lead	9/26/2023	mg/L	ND (0.000500)	ND (0.000500)	0.000611 (0.000500)	0.0134 (0.000500)	0.00143 (0.000500)	-----		ND (0.00200)	ND (0.00500)	Dry	Dry	Dry	0.122 (0.00500)	ND (0.00500)	ND (0.00500)	Dry	ND (0.00500)
Lead	3/18/2024	mg/L	ND (0.000500)	ND (0.000500)	0.000992 (0.000500)	0.0103 (0.000500)	ND (0.000500)	-----		ND (0.00500)	ND (0.100)	Dry	Dry	Dry	0.101 (0.0500)	0.0240 (0.0005)	ND (0.00500)	0.00493 (0.00500)	ND (0.100)
Lead	9/17/2024	mg/L	0.00130 (0.000500)	0.000546 (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	0.317	92	-----	ND (0.0250)	Dry	Dry	Dry	0.0844 (0.000500)	0.00681 (0.000500)	ND (0.00500)	0.00722 (0.00500)	ND (0.0100)
Lithium	3/12/2018	mg/L	0.0232 (n/a)	0.548 (n/a)	0.0234 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lithium	9/4/2018	mg/L	0.0444 (n/a)	ND (1)	0.0305 (n/a)	-----	-----	-----		0.0376 (n/a)	0.948 (n/a)	Dry	Dry	-----	1.40 (n/a)	0.037 (n/a)	-----	ND (0.04)	Dry
Lithium	3/18/2019	mg/L	0.0251 (n/a)	0.528 (n/a)	0.0278 (n/a)	-----	-----	-----		0.0327 (n/a)	6.52 (n/a)	Dry	Dry	-----	0.593 (n/a)	0.23 (n/a)	-----	-----	Dry
Lithium	8/27/2019	mg/L	0.0255 (n/a)	0.522 (n/a)	0.0302 (n/a)	-----	-----	-----		0.04 (n/a)	5.69 (n/a)	Dry	Dry	-----	0.684 (n/a)	0.046 (n/a)	-----	-----	Dry
Lithium	3/26/2020	mg/L	0.0235 (n/a)	0.632 (n/a)	0.0303 (n/a)	-----	-----	-----		0.0378 (n/a)	4.81 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lithium	9/1/2020	mg/L	0.0229 (n/a)	0.756 (n/a)	0.0325 (n/a)	-----	-----	-----		0.0483 (n/a)	1.29 (n/a)	Dry	Dry	-----	0.851 (n/a)	-----	-----	-----	Dry
Lithium	3/18/2021	mg/L	0.0232 (0.01)	0.807 (0.01)	0.0321 (0.01)	-----	-----	-----		0.0396 (0.01)	0.0622 (0.01)	Dry	Dry	0.308 (0.02)	0.916 (0.01)	0.0339 (0.01)	0.0294 (0.01)	ND (0.01)	Dry
Lithium	9/16/2021	mg/L	0.025 (0.01)	0.653 (0.01)	0.0319 (0.01)	0.0343 (0.01)	0.0291 (0.01)	-----		0.052 (0.01)	0.783 (0.01)	Dry	Dry	-----	1.01 (0.01)	0.0748 (0.01)	0.0423 (0.01)	-----	Dry
Lithium	10/8/2021	mg/L	-----	-----	-----	-----	-----	1.140 (n/a)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lithium	3/15/2022	mg/L	0.0215 (0.01)	0.745 (0.1)	0.0330 (0.01)	0.0351 (0.01)	0.0284 (0.01)	-----		0.0439 (0.04)	2.26 (0.2)	Dry	Dry	Dry	1.46 (0.1)	ND (0.1)	ND (0.1)	ND (0.01)	Dry
Lithium	4/19/2022	mg/L	-----	-----	-----	-----	-----	1.45 (0.01)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lithium	9/23/2022	mg/L	0.247 (0.01)	0.778 (0.07)	0.0270 (0.01)	0.0288 (0.01)	0.0227 (0.01)	-----		ND (0.07)	2.32 (0.1)	Dry	Dry	Dry	Dry	0.0113 (0.010	-----	0.0280 (0.01)	ND (0.01)
Lithium	3/20/2023	mg/L	0.0202 (0.01)	0.685 (0.1)	0.0238 (0.01)	0.0256 (0.01)	0.0226 (0.01)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Lithium	5/8/2023	mg/L						1.33 (0.3)	ND (7)										
Lithium	9/26/2023	mg/L	0.0258 (0.0100)	0.803 (0.400)	0.0348 (0.0100)	0.0290 (0.0100)	0.0312 (0.0100)	-----		0.0788 (0.0100)	3.97 (1.00)	Dry	Dry	Dry	3.02 (1.00)	ND (0.100)	ND (0.100)	Dry	0.381 (0.100)
Lithium	3/18/2024	mg/L	0.0251 (0.0100)	0.740 (0.100)	0.0356 (0.0100)	0.0357 (0.0100)	0.0290 (0.0100)	-----		0.0491 (0.0100)	1.60 (0.0100)	Dry	Dry	Dry	1.71 (1.00)	0.262 (0.0100)	0.0670 (0.100)	0.0129 (0.0100)	ND (2.00)
Lithium	9/17/2024	mg/L	0.0232 (0.0100)	ND (0.630)	0.0301 (0.0100)	0.0319 (0.0100)	0.0650 (0.0100)	ND (0.8)	7.7	-----	2.62 (0.500)	Dry	Dry	Dry	0.911 (0.250)	0.336 (0.200)	0.0517 (0.0100)	0.0171 (0.0100)	0.811 (0.200)
Magnesium	3/12/2018	mg/L	34.2 (n/a)	3.83 (n/a)	33.9 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Magnesium	9/4/2018	mg/L	70.4 (n/a)	ND (5)	42.9 (n/a)	-----	-----	-----		70.3 (n/a)	9.09 (n/a)	Dry	Dry	-----	ND (2.5)	73.0 (n/a)	-----	6.56 (n/a)	Dry
Magnesium	3/18/2019	mg/L	34.4 (n/a)	1.81 (n/a)	37.6 (n/a)	-----	-----	-----		89.6 (n/a)	ND (5)	Dry	Dry	-----	1.57 (n/a)	86.8 (n/a)	-----	-----	Dry
Magnesium	8/27/2019	mg/L	35.8 (n/a)	1.33 (n/a)	50.7 (n/a)	-----	-----	-----		79.7 (n/a)	ND (0.29)	Dry	Dry	-----	0.747 (n/a)	54.9 (n/a)	-----	-----	Dry
Magnesium	3/26/2020	mg/L	33.1 (n/a)	5.18 (n/a)	42.7 (n/a)	-----	-----	-----		75.6 (n/a)	ND (5)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Magnesium	9/1/2020	mg/L	31.4 (n/a)	0.574 (n/a)	43.0 (n/a)	-----	-----	-----		80.7 (n/a)	0.0726 (n/a)	Dry	Dry	-----	0.236 (n/a)	-----	-----	-----	Dry
Magnesium	3/18/2021	mg/L	33.8 (0.05)	0.192 (0.05)	43.3 (0.05)	-----	-----	-----		100 (0.05)	12.3 (0.05)	Dry	Dry	43.2 (0.05)	0.553 (0.05)	41.5 (0.05)	108 (0.05)	24.7 (0.05)	Dry
Magnesium	9/16/2021	mg/L	31.6 (0.05)	0.21 (0.05)	41.9 (0.05)	39.6 (0.05)	37.4 (0.05)	-----		101 (0.05)	0.673 (0.05)	Dry	Dry	-----	0.199 (0.05)	81.5 (0.05)	71.2 (0.05)	-----	Dry
Magnesium	10/8/2021	mg/L	-----	-----	-----	-----	-----	5980 (n/a)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Magnesium	3/15/2022	mg/L	31.2 (0.5)	ND (5)	41.6 (0.5)	39.3 (0.5)	36.3 (0.5)	-----		104 (2)	ND (10)	Dry	Dry	Dry	ND (5)	89.3 (5)	151 (5)	91.5 (5)	Dry
Magnesium	4/19/2022	mg/L	-----	-----	-----	-----	-----	6740 (50)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Magnesium	9/23/2022	mg/L	32.6 (0.5)	ND (3.5)	36.4 (0.5)	35.1 (0.5)	32.2 (0.5)	-----		111 (3.5)	64.2 (5)	Dry	Dry	Dry	Dry	31.3 (0.5)	-----	ND (0.5)	85.3 (5)
Magnesium	3/20/2023	mg/L	34.0 (0.5)	ND (5)	34.7 (0.5)	31.8 (0.5)	35.2 (0.5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Magnesium	5/8/2023	mg/L						7040 (50)	24000 (420)										
Magnesium	9/26/2023	mg/L	34.1 (0.500)	ND (0.500)	36.4 (0.500)	39.3 (0.500)	40.8 (0.500)	-----		111 (2.00)	139 (5.00)	Dry	Dry	Dry	ND (5.00)	158 (5.00)	334 (5.00)	Dry	83.2 (5.00)
Magnesium	3/18/2024	mg/L	33.0 (0.500)	ND (50.0)	42.5 (0.500)	37.9 (0.500)	36.7 (0.500)	-----		115 (2.00)	ND (100)	Dry	Dry	Dry	ND (50.0)	36.0 (10.0)	250 (10.0)	5.51 (2.00)	ND (100)
Magnesium	9/17/2024	mg/L	36.5 (0.500)	ND (0.500)	41.1 (0.500)	37.3 (0.500)	35.9 (0.500)	3220	23400	-----	ND (125)	Dry	Dry	Dry	ND (0.500)	5.85 (0.500)	290 (5.00)	7.05 (0.500)	135 (10.0)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Manganese	3/12/2018	mg/L	0.0585 (n/a)	ND (0.01)	0.0256 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Manganese	9/4/2018	mg/L	0.207 (n/a)	ND (0.01)	0.0336 (n/a)	-----	-----	-----		0.126 (n/a)	0.302 (n/a)	Dry	Dry	-----	ND (0.5)	10.7 (n/a)	-----	0.782 (n/a)	Dry
Manganese	3/18/2019	mg/L	0.0448 (n/a)	0.00314 (n/a)	0.0136 (n/a)	-----	-----	-----		0.0128 (n/a)	ND (1)	Dry	Dry	-----	0.252 (n/a)	6.11 (n/a)	-----	-----	Dry
Manganese	8/27/2019	mg/L	0.0819 (n/a)	0.00581 (n/a)	0.0226 (n/a)	-----	-----	-----		0.0347 (n/a)	ND (0.025)	Dry	Dry	-----	0.173 (n/a)	0.578 (n/a)	-----	-----	Dry
Manganese	3/26/2020	mg/L	0.109 (n/a)	ND (0.1)	0.119 (n/a)	-----	-----	-----		0.0255 (n/a)	ND (0.1)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Manganese	9/1/2020	mg/L	0.105 (n/a)	0.00642 (n/a)	0.0744 (n/a)	-----	-----	-----		0.0378 (n/a)	0.00726 (n/a)	Dry	Dry	-----	0.0198 (n/a)	-----	-----	-----	Dry
Manganese	3/18/2021	mg/L	0.106 (0.005)	ND (0.005)	0.174 (0.005)	-----	-----	-----		0.0508 (0.005)	0.284 (0.005)	Dry	Dry	1.05 (0.005)	0.0528 (0.005)	6.13 (0.005)	13.3 (0.005)	3.17 (0.005)	Dry
Manganese	9/16/2021	mg/L	0.0762 (0.005)	0.0052 (0.005)	0.712 (0.005)	0.0584 (0.005)	0.0458 (0.005)	-----		0.0911 (0.005)	0.0926 (0.005)	Dry	Dry	-----	0.0225 (0.005)	32.2 (0.005)	8.73 (0.005)	-----	Dry
Manganese	10/8/2021	mg/L	-----	-----	-----	-----	-----	11.2 (0.25)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Manganese	3/15/2022	mg/L	0.0764 (0.01)	ND (0.1)	0.0901 (0.1)	0.0896 (0.01)	0.0295 (0.01)	-----		0.0581 (0.04)	ND (0.2)	Dry	Dry	Dry	ND (0.1)	18.4 (0.1)	22.6 (0.1)	5.50 (0.1)	Dry
Manganese	4/19/2022	mg/L	-----	-----	-----	-----	-----	19.3 (0.2)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Manganese	9/23/2022	mg/L	0.0945 (0.01)	ND (0.07)	0.584 (0.01)	ND (0.01)	0.0328 (0.01)	-----		0.0953 (0.07)	1.22 (0.01)	Dry	Dry	Dry	Dry	2.50 (0.01)	-----	0.0132 (0.01)	2.26 (0.01)
Manganese	3/20/2023	mg/L	0.0784 (0.01)	ND (0.1)	0.0500 (0.01)	ND (0.01)	ND (0.0200)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Manganese	5/8/2023	mg/L						7.82 (0.3)	396 (7)										
Manganese	9/26/2023	mg/L	0.0912 (0.0100)	ND (0.0100)	0.0417 (0.0100)	0.0609 (0.0100)	0.112 (0.0100)	-----		0.156 (0.0400)	0.531 (0.100)	Dry	Dry	Dry	ND (0.100)	8.22 (1.00)	32.2 (1.00)	Dry	0.499 (0.100)
Manganese	3/18/2024	mg/L	0.0796 (0.0100)	ND (1.00)	0.669 (0.0100)	ND (0.0100)	0.0252 (0.0100)	-----		0.0327 (0.0100)	ND (2.00)	Dry	Dry	Dry	ND (1.00)	1.51 (0.200)	37.3 (0.200)	0.308 (0.0400)	ND (2.00)
Manganese	9/17/2024	mg/L	0.100 (0.0100)	0.0105 (0.0100)	0.0152 (0.0100)	ND (0.0100)	0.0178 (0.0100)	2.72	622	-----	ND (2.50)	Dry	Dry	Dry	ND (0.250)	ND (0.400)	43.0 (0.100)	0.716 (0.0400)	0.495 (0.200)
Molybdenum	3/12/2018	mg/L	ND (0.002)	0.159 (n/a)	ND (0.002)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Molybdenum	9/4/2018	mg/L	0.00218 (n/a)	ND (0.2)	ND (0.002)	-----	-----	-----		0.0132 (n/a)	0.0173 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.002)	-----	0.0163 (n/a)	Dry
Molybdenum	3/18/2019	mg/L	ND (0.002)	0.192 (n/a)	ND (0.002)	-----	-----	-----		0.00923 (n/a)	ND (0.2)	Dry	Dry	-----	ND (0.005)	ND (0.02)	-----	-----	Dry
Molybdenum	8/27/2019	mg/L	ND (0.0011)	0.0981 (n/a)	ND (0.002)	-----	-----	-----		0.00906 (n/a)	0.0524 (n/a)	Dry	Dry	-----	0.0025 (n/a)	ND (0.002)	-----	-----	Dry
Molybdenum	3/26/2020	mg/L	ND (0.002)	0.19 (n/a)	ND (0.002)	-----	-----	-----		0.00999 (n/a)	0.07 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Molybdenum	9/1/2020	mg/L	ND (0.0011)	0.206 (n/a)	ND (0.0011)	-----	-----	-----		0.0125 (n/a)	0.0798 (n/a)	Dry	Dry	-----	0.0131 (n/a)	-----	-----	-----	Dry
Molybdenum	3/18/2021	mg/L	ND (0.02)	0.208 (0.02)	ND (0.02)	-----	-----	-----		ND (0.02)	0.0261 (0.02)	Dry	Dry	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Molybdenum	9/16/2021	mg/L	ND (0.02)	0.185 (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.02)	0.121 (0.02)	Dry	Dry	-----	ND (0.02)	0.0389 (0.02)	ND (0.02)	-----	Dry
Molybdenum	10/8/2021	mg/L	-----	-----	-----	-----	-----	6.92 (1.0)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Molybdenum	3/15/2022	mg/L	ND (0.002)	0.218 (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.008)	0.283 (0.04)	Dry	Dry	Dry	0.0241 (0.02)	0.0725 (0.02)	ND (0.02)	ND (0.02)	Dry
Molybdenum	4/19/2022	mg/L	-----	-----	-----	-----	-----	7.03 (0.04)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Molybdenum	9/23/2022	mg/L	ND (0.002)	0.170 (0.014)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.014)	0.147 (0.002)	Dry	Dry	Dry	Dry	0.0796 (0.002)	-----	0.0166 (0.002)	0.150 (0.002)
Molybdenum	3/20/2023	mg/L	ND (0.002)	0.222 (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Molybdenum	5/8/2023	mg/L						4.83 (0.06)	21.9 (2.8)										
Molybdenum	9/26/2023	mg/L	ND (0.00200)	0.184 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	-----		ND (0.00800)	0.177 (0.0200)	Dry	Dry	Dry	0.0268 (0.0200)	0.0961 (0.0200)	ND (0.0200)	Dry	0.185 (0.0200)
Molybdenum	3/18/2024	mg/L	ND (0.00200)	0.211 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	-----		0.00807 (0.00800)	ND (0.400)	Dry	Dry	Dry	ND (0.200)	0.0194 (0.00200)	ND (0.00200)	0.0101 (0.00200)	ND (0.400)
Molybdenum	9/17/2024	mg/L	ND (0.00200)	0.181 (0.126)	ND (0.00200)	ND (0.00200)	ND (0.00200)	3.2	21.8	-----	0.135 (0.100)	Dry	Dry	Dry	ND (0.0500)	0.0641 (0.0400)	ND (0.00200)	0.00986 (0.00200)	0.149 (0.0400)
Nickel	3/12/2018	mg/L	ND (0.005)	0.00548 (n/a)	0.00637 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nickel	9/4/2018	mg/L	0.0139 (n/a)	ND (0.5)	0.00801 (n/a)	-----	-----	-----		0.0169 (n/a)	0.012 (n/a)	Dry	Dry	-----	ND (0.25)	0.0238 (n/a)	-----	ND (0.02)	Dry
Nickel	3/18/2019	mg/L	ND (0.005)	0.00804 (n/a)	ND (0.005)	-----	-----	-----		0.0244 (n/a)	ND (0.5)	Dry	Dry	-----	0.0106 (n/a)	ND (0.05)	-----	-----	Dry
Nickel	8/27/2019	mg/L	ND (0.0017)	0.00725 (n/a)	0.0051 (n/a)	-----	-----	-----		0.0104 (n/a)	0.0428 (n/a)	Dry	Dry	-----	ND (0.005)	0.00827 (n/a)	-----	-----	Dry
Nickel	3/26/2020	mg/L	ND (0.005)	ND (0.05)	0.00448 (n/a)	-----	-----	-----		0.0152 (n/a)	0.0494 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nickel	9/1/2020	mg/L	ND (0.0019)	0.0119 (n/a)	0.00394 (n/a)	-----	-----	-----		0.00935 (n/a)	0.0394 (n/a)	Dry	Dry	-----	0.033 (n/a)	-----	-----	-----	Dry
Nickel	3/18/2021	mg/L	ND (0.005)	0.0127 (0.005)	0.0131 (0.005)	-----	-----	-----		0.0151 (0.005)	0.0283 (0.005)	Dry	Dry	0.0606 (0.005)	0.0389 (0.005)	0.0133 (0.005)	0.0318 (0.005)	0.0378 (0.005)	Dry
Nickel	9/16/2021	mg/L	ND (0.005)	0.0094 (0.005)	0.0067 (0.005)	ND (0.005)	ND (0.005)	-----		0.0103 (0.005)	0.0538 (0.005)	Dry	Dry	-----	0.0446 (0.005)	0.0928 (0.005)	0.0177 (0.005)	-----	Dry
Nickel	10/8/2021	mg/L	-----	-----	-----	-----	-----	18.4 (0.25)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nickel	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		0.0212 (0.200)	ND (0.1)	Dry	Dry	Dry	0.0553 (0.05)	0.0646 (0.05)	ND (0.05)	ND (0.05)	Dry
Nickel	4/19/2022	mg/L	-----	-----	-----	-----	-----	7.76 (0.1)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nickel	9/23/2022	mg/L	ND (0.005)	ND (0.035)	0.0189 (0.005)	0.00553 (0.005)	ND (0.005)	-----		ND (0.035)	0.0527 (0.005)	Dry	Dry	Dry	Dry	0.0160 (0.005)	-----	0.0274 (0.005)	0.0474 (0.005)
Nickel	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Nickel	5/8/2023	mg/L						5.32 (0.15)	494 (4.2)										
Nickel	9/26/2023	mg/L	ND (0.00500)	0.00828 (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)	0.0656 (0.0500)	Dry	Dry	Dry	ND (0.0500)	0.0746 (0.0500)	ND (0.0500)	Dry	0.0647 (0.0500)
Nickel	3/18/2024	mg/L	ND (0.00500)	0.00569 (0.00500)	0.0248 (0.00500)	ND (0.00500)	ND (0.00500)	-----		0.00631 (0.00500)	0.0368 (0.005)	Dry	Dry	Dry	0.0226 (0.00500)	0.0502 (0.00500)	0.0449 (0.00500)	0.0317 (0.00500)	ND (1.00)
Nickel	9/17/2024	mg/L	ND (0.00500)	0.00752 (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	4.99	701	-----	0.0451 (0.00500)	Dry	Dry	Dry	0.00944 (0.00500)	0.0389 (0.00500)	ND (0.0500)	0.0228 (0.00500)	ND (0.100)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Nitrate	3/12/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		-----	0.337 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.1)	-----	ND (0.1)	Dry
Nitrate	9/4/2018	mg/L	ND (0.1)	ND (5)	ND (0.1)	-----	-----	-----		2.50 (n/a)	ND (5)	Dry	Dry	-----	ND (0.1)	890 (n/a)	-----	ND (0.1)	Dry
Nitrate	3/18/2019	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		2.67 (n/a)	ND (0.5)	Dry	Dry	-----	ND (0.1)	ND (0.1)	-----	-----	Dry
Nitrate	8/27/2019	mg/L	ND (0.046)	ND (0.046)	ND (0.1)	-----	-----	-----		ND (0.046)	ND (2.3)	Dry	Dry	-----	ND (0.1)	0.202 (n/a)	-----	-----	Dry
Nitrate	3/26/2020	mg/L	ND (0.1)	ND (0.1)	0.061 (n/a)	-----	-----	-----		1.38 (n/a)	0.148 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nitrate	9/1/2020	mg/L	ND (0.049)	ND (0.049)	0.214 (n/a)	-----	-----	-----		0.407 (n/a)	ND (0.049)	Dry	Dry	-----	ND (0.049)	-----	-----	-----	Dry
Nitrate	3/18/2021	mg/L	ND (0.1)	ND (0.1)	0.18 (0.1)	-----	-----	-----		1.80 (0.1)	ND (0.1)	Dry	Dry	0.47 (0.1)	ND (0.1)	0.12 (0.1)	ND (0.1)	0.13 (0.1)	Dry
Nitrate	9/16/2021	mg/L	ND (0.1)	0.13 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		1.70 (0.1)	0.17 (0.1)	Dry	Dry	-----	ND (0.1)	4.50 (0.1)	0.23 (0.1)	-----	Dry
Nitrate	10/8/2021	mg/L	-----	-----	-----	-----	-----	293 (20)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrate	3/15/2022	mg/L	ND (0.1)	ND (10)	ND (0.1)	ND (0.1)	ND (0.1)	-----		1.46 (0.1)	7.16 (0.5)	Dry	Dry	Dry	ND (10)	1.83 (0.1)	ND (0.1)	1.35 (0.1)	Dry
Nitrate	4/19/2022	mg/L	-----	-----	-----	-----	-----	333 (10)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrate	9/23/2022	mg/L	0.153 (0.1)	0.163 (0.1)	ND (0.1)	ND (0.1)	1.15 (0.1)	-----		0.578 (0.1)	5.86 (1)	Dry	Dry	Dry	Dry	0.904 (0.1)	-----	ND (0.1)	0.719 (0.1)
Nitrate	3/20/2023	mg/L	ND (0.1)	0.999 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Nitrate	5/8/2023	mg/L						332 (20)	754 (67.9)										
Nitrate	9/26/2023	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	-----		ND (0.200)	ND (1.00)	Dry	Dry	Dry	ND (1.00)	ND (1.00)	ND (1.00)	Dry	ND (1.00)
Nitrate	3/18/2024	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	-----		183 (0.200)	2.29 (0.200)	Dry	Dry	Dry	ND (0.200)	ND (0.200)	0.341 (0.200)	ND (0.200)	ND (0.200)
Nitrate	9/17/2024	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	319	845	-----	3.71 (1.00)	Dry	Dry	Dry	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Nitrite	3/26/2020	mg/L	ND (0.039)	ND (0.039)	ND (0.039)	-----	-----	-----		ND (0.039)	ND (0.039)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nitrite	9/1/2020	mg/L	ND (0.039)	ND (0.039)	ND (0.039)	-----	-----	-----		ND (0.039)	0.814 (n/a)	Dry	Dry	-----	ND (0.195)	-----	-----		Dry
Nitrite	3/18/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		ND (0.1)	0.31 (0.1)	Dry	Dry	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	Dry
Nitrite	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		0.55 (0.1)	ND (0.1)	Dry	Dry	-----	ND (0.1)	ND (0.1)	ND (0.1)	-----	Dry
Nitrite	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.1)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrite	3/15/2022	mg/L	ND (0.1)	ND (10)	ND (0.1)	ND (0.1)	ND (0.1)	-----		ND (0.1)	ND (10)	Dry	Dry	Dry	ND (10)	ND (10)	ND (0.1)	ND (10)	Dry
Nitrite	4/19/2022	mg/L	-----	-----	-----	-----	-----	20.3 (10)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrite	9/23/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	0.131 (0.1)	0.128 (0.1)	-----		ND (0.1)	1.71 (1)	Dry	Dry	Dry	Dry	ND (5)	-----	ND (0.1)	ND (20)
Nitrite	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Nitrite	5/8/2023	mg/L						20.9 (20)	ND (67.9)										
Nitrite	9/26/2023	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	-----		ND (0.200)	ND (1.00)	Dry	Dry	Dry	ND (1.00)	ND (1.00)	ND (1.00)	Dry	ND (1.00)
Nitrite	3/18/2024	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	-----		ND (0.200)	ND (0.200)	Dry	Dry	Dry	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Nitrite	9/17/2024	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	65.1	82.5	-----	ND (1.00)	Dry	Dry	Dry	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Phosphorus	3/12/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		-----	ND (0.1)	Dry	Dry	-----	ND (0.1)	ND (0.1)	-----	1.09 (n/a)	Dry
Phosphorus	9/4/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		ND (0.1)	0.309 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.02)	-----	1.09 (n/a)	Dry
Phosphorus	3/18/2019	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		ND (0.1)	0.249 (n/a)	Dry	Dry	-----	0.564 (n/a)	ND (0.1)	-----	-----	Dry
Phosphorus	8/27/2019	mg/L	ND (0.041)	0.117 (n/a)	ND (0.1)	-----	-----	-----		ND (0.41)	0.147 (n/a)	Dry	Dry	-----	0.179 (n/a)	ND (0.1)	-----	-----	Dry
Phosphorus	3/26/2020	mg/L	ND (0.1)	0.136 (n/a)	0.075 (n/a)	-----	-----	-----		0.0447 (n/a)	0.102 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Phosphorus	9/1/2020	mg/L	ND (0.039)	0.131 (n/a)	ND (0.039)	-----	-----	-----		ND (0.039)	0.0593 (n/a)	Dry	Dry	-----	ND (0.039)	-----	-----	-----	Dry
Phosphorus	3/18/2021	mg/L	ND (0.1)	0.12 (0.1)	0.12 (0.1)	-----	-----	-----		ND (0.1)	ND (0.1)	Dry	Dry	0.32 (0.1)	ND (0.1)	0.15 (0.1)	0.22 (0.1)	0.25 (0.1)	Dry
Phosphorus	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		0.46 (0.1)	ND (0.1)	Dry	Dry	-----	ND (0.1)	0.51 (0.1)	ND (0.1)	-----	Dry
Phosphorus	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (10.0)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Phosphorus	3/15/2022	mg/L	ND (0.1)	0.152 (0.1)	ND (0.1)	0.131 (0.1)	ND (0.1)	-----		ND (0.1)	6.73 (0.1)	Dry	Dry	Dry	ND (0.1)	1.85 (0.1)	ND (0.1)	0.673 (0.1)	Dry
Phosphorus	4/19/2022	mg/L	-----	-----	-----	-----	-----	1.76 (0.5)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Phosphorus	9/23/2022	mg/L	ND (0.1)	0.159 (0.1)	0.517 (0.1)	ND (0.1)	ND (0.1)	-----		0.109 (0.1)	2.78 (0.1)	Dry	Dry	Dry	Dry	4.15 (0.1)	-----	0.101 (0.1)	5.92 (0.1)
Phosphorus	3/20/2023	mg/L	ND (0.1)	0.197 (0.1)	0.160 (0.1)	ND (0.1)	ND (0.1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Phosphorus	5/8/2023	mg/L						0.205 (0.1)	124 (32.8)										
Phosphorus	9/26/2023	mg/L	ND (0.100)	0.162 (0.100)	0.222 (0.100)	0.131 (0.100)	0.231 (0.100)	-----		0.116 (0.100)	ND (0.500)	Dry	Dry	Dry	ND (1.00)	2.06 (0.100)	ND (0.100)	Dry	3.99 (0.100)
Phosphorus	3/18/2024	mg/L	ND (0.100)	0.187 (0.100)	0.240 (0.100)	0.110 (0.100)	ND (0.100)	-----		ND (0.100)	0.250 (0.100)	Dry	Dry	Dry	ND (0.100)	0.706 (0.100)	ND (0.100)	ND (0.100)	7.35 (1.00)
Phosphorus	9/17/2024	mg/L	ND (0.100)	0.164 (0.100)	ND (0.100)	0121 (0.100)	ND (0.100)	0.201	133	-----	0.373 (0.100)	Dry	Dry	Dry	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	3.71 (0.100)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Potassium	3/12/2018	mg/L	4.21 (n/a)	4360 (n/a)	4.40 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Potassium	9/4/2018	mg/L	32.7 (n/a)	5260 (n/a)	6.24 (n/a)	-----	-----	-----		44.2 (n/a)	2440 (n/a)	Dry	Dry	-----	1410 (n/a)	221 (n/a)	-----	104 (n/a)	Dry
Potassium	3/18/2019	mg/L	4.34 (n/a)	3450 (n/a)	3.95 (n/a)	-----	-----	-----		30.8 (n/a)	17100 (n/a)	Dry	Dry	-----	233 (n/a)	853 (n/a)	-----	-----	Dry
Potassium	8/27/2019	mg/L	4.41 (n/a)	4790 (n/a)	7.60 (n/a)	-----	-----	-----		52.8 (n/a)	14200 (n/a)	Dry	Dry	-----	256 (n/a)	273 (n/a)	-----	-----	Dry
Potassium	3/26/2020	mg/L	4.20 (n/a)	4210 (n/a)	5.38 (n/a)	-----	-----	-----		55.6 (n/a)	15700 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Potassium	9/1/2020	mg/L	3.68 (n/a)	4140 (n/a)	5.68 (n/a)	-----	-----	-----		152 (n/a)	6630 (n/a)	Dry	Dry	-----	2660 (n/a)	-----	-----	-----	Dry
Potassium	3/18/2021	mg/L	6.80 (0.5)	4970 (5)	8.43 (0.5)	-----	-----	-----		72.9 (0.5)	864 (0.5)	Dry	Dry	185 (0.5)	2230 (1.5)	244 (0.5)	269 (0.5)	270 (0.5)	Dry
Potassium	9/16/2021	mg/L	3.76 (0.5)	5170 (5)	6.92 (0.5)	6.56 (0.5)	3.48 (0.5)	-----		120 (0.5)	9870 (5)	Dry	Dry	-----	3130 (5)	5240 (5)	719 (0.5)	-----	Dry
Potassium	10/8/2021	mg/L	-----	-----	-----	-----	-----	932 (n/a)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Potassium	3/15/2022	mg/L	3.57 (0.5)	5200 (50)	6.00 (0.5)	6.26 (0.5)	3.39 (0.5)	-----		55.5 (2)	16200 (250)	Dry	Dry	Dry	4440 (50)	4440 (50)	510 (5)	2180 (50)	Dry
Potassium	4/19/2022	mg/L	-----	-----	-----	-----	-----	1560 (10)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Potassium	9/23/2022	mg/L	3.95 (0.5)	5160 (50)	4.29 (0.5)	5.82 (0.5)	3.84 (0.5)	-----		95.6 (3.5)	18200 (500)	Dry	Dry	Dry	Dry	4730 (50)	-----	1070 (50)	15100 (500)
Potassium	3/20/2023	mg/L	4.05 (0.5)	6970 (50)	4.54 (0.5)	5.38 (0.5)	3.48 (0.5)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Potassium	5/8/2023	mg/L						1100 (15)	2930 (420)										
Potassium	9/26/2023	mg/L	3.89 (0.500)	5020 (50.0)	4.61 (0.500)	7.32 (0.500)	3.55 (0.500)	-----		157 (2.00)	21600 (500)	Dry	Dry	Dry	6430 (50.0)	7740 (50.0)	1360 (50.0)	Dry	31800 (500)
Potassium	3/18/2024	mg/L	3.76 (0.500)	3920 (50.0)	4.83 (0.500)	5.88 (0.500)	3.32 (0.500)	-----		106 (2.00)	8320 (100)	Dry	Dry	Dry	3580 (50.0)	1120 (10.0)	710 (10.0)	183 (2.00)	14000 (100)
Potassium	9/17/2024	mg/L	4.23 (0.500)	3920 (31.5)	3.85 (0.500)	5.78 (0.500)	3.16 (0.500)	630	3350	-----	18500 (125)	Dry	Dry	Dry	1510 (12.5)	1280 (5.00)	928 (10.0)	315 (2.00)	15200 (200)
Selenium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Selenium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)	0.059 (n/a)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Selenium	3/18/2019	mg/L	ND (0.005)	0.00206 (n/a)	ND (0.005)	-----	-----	-----		ND (0.005)	ND (0.5)	Dry	Dry	-----	0.00494 (n/a)	ND (0.05)	-----	-----	Dry
Selenium	8/27/2019	mg/L	ND (0.001)	0.00179 (n/a)	ND (0.005)	-----	-----	-----		0.00121 (n/a)	0.198 (n/a)	Dry	Dry	-----	ND (0.005)	0.00597 (n/a)	-----	-----	Dry
Selenium	3/26/2020	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	-----	-----	-----		0.00143 (n/a)	0.203 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Selenium	9/1/2020	mg/L	ND (0.001)	0.00262 (n/a)	ND (0.001)	-----	-----	-----		ND (0.001)	0.511 (n/a)	Dry	Dry	-----	0.0168 (n/a)	-----	-----	-----	Dry
Selenium	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	-----	-----	-----		ND (0.015)	0.0661 (0.015)	Dry	Dry	ND (0.03)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	Dry
Selenium	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	-----		ND (0.015)	1.00 (0.015)	Dry	Dry	-----	0.039 (0.015)	ND (0.015)	ND (0.015)	-----	Dry
Selenium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.75)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Selenium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.02)	1.53 (0.1)	Dry	Dry	Dry	0.0502 (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Selenium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.101 (0.005)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Selenium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.035)	0.834 (0.05)	Dry	Dry	Dry	Dry	0.00608 (0.005)	-----	0.273 (0.005)	0.0411 (0.005)
Selenium	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Selenium	5/8/2023	mg/L						0.0878 (0.005)	ND (4.2)										
Selenium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)	0.763 (0.500)	Dry	Dry	Dry	0.0721 (0.0500)	0.719 (0.0500)	ND (0.0500)	Dry	ND (0.0500)
Selenium	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)	0.367 (0.005)	Dry	Dry	Dry	0.0563 (0.00500)	0.0138 (0.005)	ND (0.00500)	0.00795 (0.00500)	ND (1.00)
Selenium	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	0.0716	ND (4.61)	-----	0.784 (0.00500)	Dry	Dry	Dry	0.0136 (0.00500)	0.0572 (0.00500)	ND (0.00500)	0.00651 (0.00500)	ND (0.100)
Silver	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Silver	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Silver	3/18/2019	mg/L	ND (0.001)	ND (0.00037)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.1)	Dry	Dry	-----	ND (0.0005)	ND (0.001)	-----	-----	Dry
Silver	8/27/2019	mg/L	ND (0.00037)	ND (0.00037)	ND (0.001)	-----	-----	-----		ND (0.00037)	ND (0.0037)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Silver	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.00101)	-----	-----	-----		ND (0.001)	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Silver	9/1/2020	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	-----	-----	-----		ND (0.00037)	ND (0.0037)	Dry	Dry	-----	ND (0.00037)	-----	-----	-----	Dry
Silver	3/18/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	-----	-----	-----		ND (0.007)	ND (0.007)	Dry	Dry	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	Dry
Silver	9/16/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	-----		ND (0.007)	ND (0.007)	Dry	Dry	-----	ND (0.007)	ND (0.007)	ND (0.007)	-----	Dry
Silver	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.678 (0.35)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Silver	3/15/2022	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.004)	ND (0.02)	Dry	Dry	Dry	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	Dry
Silver	4/19/2022	mg/L	-----	-----	-----	-----	-----	ND (0.02)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Silver	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.007)	ND (0.01)	Dry	Dry	Dry	Dry	ND (0.001)	-----	ND (0.001)	ND (0.01)
Silver	3/20/2023	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Silver	5/8/2023	mg/L						ND (0.001)	ND (1.4)										
Silver	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00400)	ND (0.0100)	Dry	Dry	Dry	ND (0.0100)	ND (0.0100)	ND (0.0100)	Dry	ND (0.0100)
Silver	3/18/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00100)	ND (0.00100)	Dry	Dry	Dry	ND (0.001)	ND (0.001)	ND (0.00100)	ND (0.00100)	ND (0.200)
Silver	9/17/2024	mg/L	ND (0.00100)	0.0693 (0.0630)	ND (0.00100)	ND (0.00100)	ND (0.00100)	0.00546	ND (1.54)	-----	ND (0.250)	Dry	Dry	Dry	ND (0.0250)	ND (0.0400)	ND (0.00100)	ND (0.00100)	ND (0.400)

Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Sodium	3/12/2018	mg/L	14.4 (n/a)	426 (n/a)	29.2 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----		-----	-----	Dry
Sodium	9/4/2018	mg/L	44.4 (n/a)	490 (n/a)	45.5 (n/a)	-----	-----	-----		26.8 (n/a)	111 (n/a)	Dry	Dry	-----	55.6 (n/a)	53.6 (n/a)	-----	7.42 (n/a)	Dry
Sodium	3/18/2019	mg/L	14.3 (n/a)	531 (n/a)	21.5 (n/a)	-----	-----	-----		25.2 (n/a)	814 (n/a)	Dry	Dry	-----	20.6 (n/a)	71.3 (n/a)	-----	-----	Dry
Sodium	8/27/2019	mg/L	14.2 (n/a)	425 (n/a)	38.9 (n/a)	-----	-----	-----		26.6 (n/a)	580 (n/a)	Dry	Dry	-----	29.9 (n/a)	28.0 (n/a)	-----	-----	Dry
Sodium	3/26/2020	mg/L	14.8 (n/a)	391 (n/a)	27.1 (n/a)	-----	-----	-----		29.8 (n/a)	694 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Sodium	9/1/2020	mg/L	12.8 (n/a)	630 (n/a)	30.6 (n/a)	-----	-----	-----		43.7 (n/a)	470 (n/a)	Dry	Dry	-----	162 (n/a)	-----	-----	-----	Dry
Sodium	3/18/2021	mg/L	12.5 (0.5)	358 (0.5)	33.5 (0.5)	-----	-----	-----		35.1 (0.5)	77.4 (0.5)	Dry	Dry	11.7 (0.5)	107 (0.5)	21.7 (0.5)	86.7 (0.5)	60.5 (0.5)	Dry
Sodium	9/16/2021	mg/L	11.5 (0.5)	384 (0.5)	35.2 (0.5)	17.5 (0.5)	19.0 (0.5)	-----		37.6 (0.5)	527 (5)	Dry	Dry	-----	125 (0.5)	603 (5)	67.1 (0.5)	-----	Dry
Sodium	10/8/2021	mg/L	-----	-----	-----	-----	-----	842 (n/a)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sodium	3/15/2022	mg/L	11.9 (1)	434 (10)	34.1 (1)	20.8 (1)	23.9 (1)	-----		30.1 (4)	1480 (20)	Dry	Dry	Dry	193 (10)	583 (10)	127 (10)	253 (10)	Dry
Sodium	4/19/2022	mg/L	-----	-----	-----	-----	-----	1320 (20)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sodium	9/23/2022	mg/L	11.9 (1)	422 (7)	21.8 (1)	17.4 (1)	17.9 (1)	-----		37.1 (7)	1190 (10)	Dry	Dry	Dry	Dry	388 (10)	-----	97.9 (1)	1090 (10)
Sodium	3/20/2023	mg/L	11.9 (1)	442 (10)	21.4 (1)	15.5 (1)	19.9 (1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Sodium	5/8/2023	mg/L						1020 (30)	2750 (700)										
Sodium	9/26/2023	mg/L	12.6 (1.00)	434 (1.00)	18.1 (1.00)	19.7 (1.00)	20.1 (1.00)	-----		54.6 (4.00)	1850 (10.0)	Dry	Dry	Dry	70 (10.0)	560 (10.0)	308 (10.0)	Dry	1410 (10.0)
Sodium	3/18/2024	mg/L	13.8 (1.00)	358 (100)	24.6 (1.00)	18.1 (1.00)	19.7 (1.00)	-----		43.8 (1.00)	474 (200)	Dry	Dry	Dry	104 (100)	85.1 (20.0)	241 (20.0)	15.5 (4.00)	814 (200)
Sodium	9/17/2024	mg/L	12.1 (1.00)	351 (63.0)	19.0 (1.00)	16.8 (1.00)	16.3 (1.00)	764	2880	-----	1020 (50.0)	Dry	Dry	Dry	74.3 (1.00)	90.1 (1.00)	271 (1.00)	34.5 (1.00)	1320 (20.0)
Sulfate	3/12/2018	mg/L	33.2 (n/a)	3950 (n/a)	78.2 (n/a)	-----	-----	-----		-----	1270 (n/a)	Dry	Dry	-----	873 (n/a)	873 (n/a)	-----	79.0 (n/a)	Dry
Sulfate	9/4/2018	mg/L	30.9 (n/a)	3560 (n/a)	139 (n/a)	-----	-----	-----		551 (n/a)	7790 (n/a)	Dry	Dry	-----	873 (n/a)	ND (0.005)	-----	79.0 (n/a)	Dry
Sulfate	3/18/2019	mg/L	31.3 (n/a)	3560 (n/a)	40.7 (n/a)	-----	-----	-----		659 (n/a)	580 (n/a)	Dry	Dry	-----	244 (n/a)	890 (n/a)	-----	-----	Dry
Sulfate	8/27/2019	mg/L	32.2 (n/a)	3440 (n/a)	74.4 (n/a)	-----	-----	-----		697 (n/a)	5160 (n/a)	Dry	Dry	-----	186 (n/a)	725 (n/a)	-----	-----	Dry
Sulfate	3/26/2020	mg/L	31.6 (n/a)	3330 (n/a)	71.2 (n/a)	-----	-----	-----		684 (n/a)	746 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Sulfate	9/1/2020	mg/L	29.9 (n/a)	3190 (n/a)	65.0 (n/a)	-----	-----	-----		643 (n/a)	2650 (n/a)	Dry	Dry	-----	379 (n/a)	-----	-----	-----	Dry
Sulfate	3/18/2021	mg/L	30.2 (5)	3640 (200)	83.5 (10)	-----	-----	-----		977 (50)	428 (50)	Dry	Dry	376 (50)	461 (50)	479 (50)	681 (50)	222 (50)	Dry
Sulfate	9/16/2021	mg/L	27.6 (5)	3170 (200)	36.4 (5)	32.9 (5)	25.3 (2)	-----		896 (200)	3700 (1000)	Dry	Dry	-----	823 (200)	2020 (500)	506 (100)	-----	Dry
Sulfate	10/8/2021	mg/L	-----	-----	-----	-----	-----	20900 (2000)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sulfate	3/15/2022	mg/L	30.9 (1)	3520 (100)	84.2 (1)	38.9 (1)	31.4 (1)	-----		782 (20)	7510 (200)	Dry	Dry	Dry	2380 (100)	1750 (100)	589 (100)	904 (100)	Dry
Sulfate	4/19/2022	mg/L	-----	-----	-----	-----	-----	19700 (1000)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sulfate	9/23/2022	mg/L	38.9 (1)	3140 (50)	39.7 (1)	28.8 (1)	25.3 (1)	-----		3150 (50)	9230 (200)	Dry	Dry	Dry	Dry	2280 (50)	-----	185 (50)	10700 (200)
Sulfate	3/20/2023	mg/L	31.3 (1)	3140 (100)	57.4 (1)	37.2 (1)	28.6 (1)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Sulfate	5/8/2023	mg/L						22800 (250)	95300 (1700)										
Sulfate	9/26/2023	mg/L	30.8 (1.00)	3080 (200)	31.8 (1.00)	33.5 (1.00)	25.6 (1.00)	-----		1050 (100)	10200 (200)	Dry	Dry	Dry	3310 (200)	3280 (200)	1540 (200)	Dry	11200 (200)
Sulfate	3/18/2024	mg/L	30.9 (1.00)	3170 (200)	46.2 (1.00)	37.9 (1.00)	25.3 (1.00)	-----		960 (50.0)	4000 (50.0)	Dry	Dry	Dry	20.8 (1.00)	335 (50.0)	1440 (50.0)	43.7 (5.00)	10700 (200)
Sulfate	9/17/2024	mg/L	33.8 (1.00)	2930 (100)	32.8 (1.00)	36.7 (1.00)	27.1 (1.00)	12900	86900	-----	7580 (100)	Dry	Dry	Dry	426 (100)	195 (100)	1460 (100)	164 (20.0)	9620 (500)
Thallium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Thallium	9/4/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Thallium	3/18/2019	mg/L	ND (0.001)	ND (0.0027)	ND (0.001)	-----	-----	-----		ND (0.001)	ND (0.1)	Dry	Dry	-----	0.00825 (n/a)	ND (0.01)	-----	-----	Dry
Thallium	8/27/2019	mg/L	ND (0.00027)	ND (0.0027)	ND (0.001)	-----	-----	-----		ND (0.00027)	ND (0.0027)	Dry	Dry	-----	0.00603 (n/a)	ND (0.001)	-----	-----	Dry
Thallium	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.00101)	-----	-----	-----		ND (0.001)	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Thallium	9/1/2020	mg/L	ND (0.00026)	ND (0.00026)	ND (0.00026)	-----	-----	-----		ND (0.00026)	ND (0.00104)	Dry	Dry	-----	0.0146 (n/a)	-----	-----	-----	Dry
Thallium	3/18/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	-----	-----	-----		ND (0.02)	ND (0.02)	Dry	Dry	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Thallium	9/16/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.02)	ND (0.02)	Dry	Dry	-----	ND (0.02)	ND (0.02)	ND (0.02)	-----	Dry
Thallium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (1.0)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Thallium	3/15/2022	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.004)	ND (0.02)	Dry	Dry	Dry	0.0179 (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	Dry
Thallium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.00982 (0.001)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Thallium	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.007)	ND (0.01)	Dry	Dry	Dry	Dry	ND (0.001)	-----	ND (0.001)	ND (0.01)
Thallium	3/20/2023	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Thallium	5/8/2023	mg/L						0.0111 (0.001)	ND (1.4)										
Thallium	9/26/2023	mg/L	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00400)	ND (0.0100)	Dry	Dry	Dry	0.0102 (0.0100)	ND (0.0100)	ND (0.0100)	Dry	ND (0.0100)
Thallium	3/18/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00100)	ND (0.200)	Dry	Dry	Dry	ND (0.100)	0.00614 (0.00100)	ND (0.00100)	0.00195 (0.00100)	ND (0.200)
Thallium	9/17/2024	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	0.0219	ND (1.54)	-----	ND (0.0500)	Dry	Dry	Dry	0.00482 (0.00100)	0.00586 (0.00100)	ND (0.00100)	0.00338 (0.00100)	ND (0.0200)

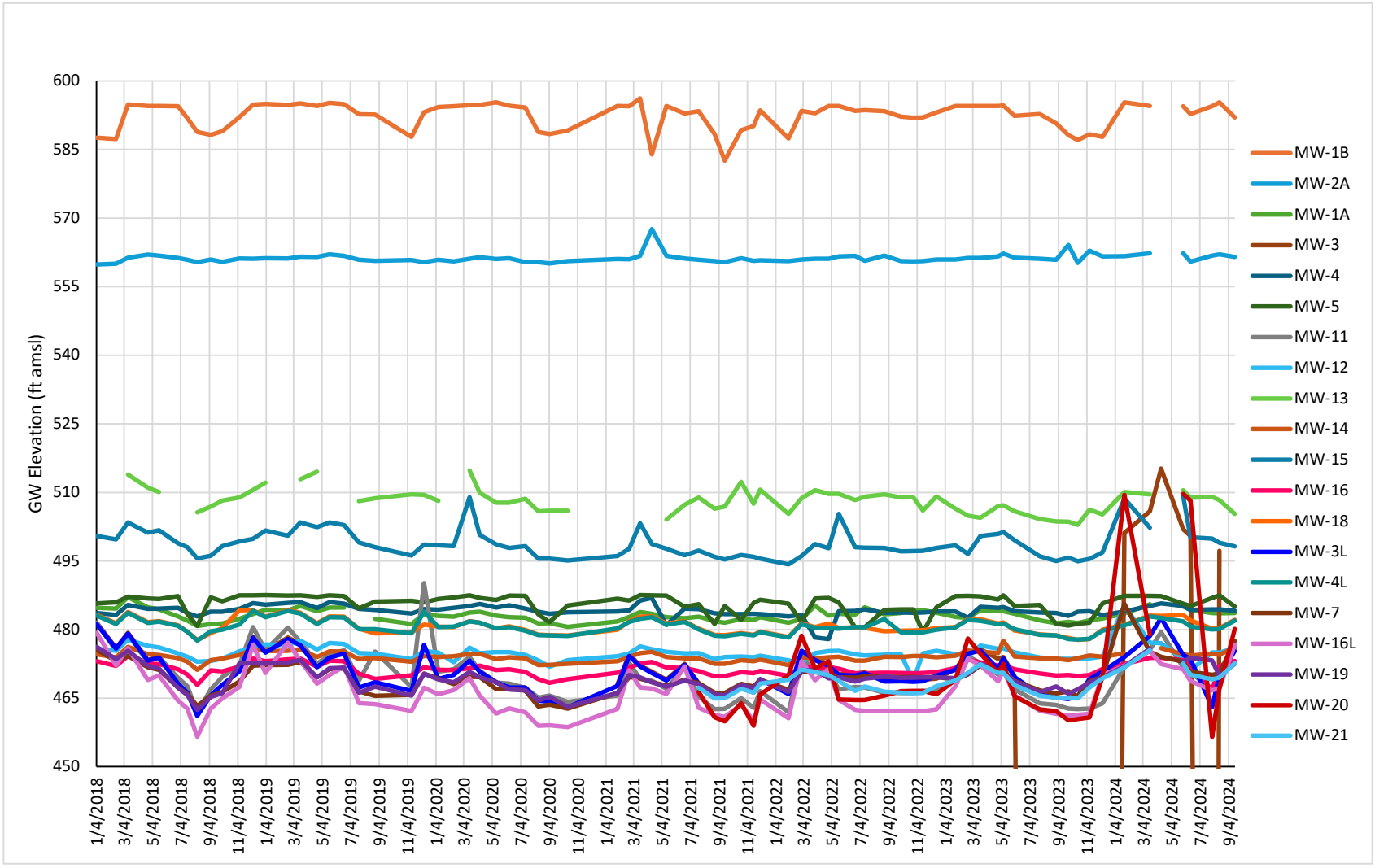
Table 5
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	*MW-2CR (aqueous)	*MW-2CR (solid)	Q-Sump	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Total Dissolved Solids	3/12/2018	mg/L	306 (n/a)	10700 (n/a)	812 (n/a)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Total Dissolved Solids	9/4/2018	mg/L	294 (n/a)	11000 (n/a)	546 (n/a)	-----	-----	-----		976 (n/a)	5600 (n/a)	Dry	Dry	-----	3880 (n/a)	2640 (n/a)	-----	342 (n/a)	Dry
Total Dissolved Solids	3/18/2019	mg/L	324 (n/a)	10800 (n/a)	422 (n/a)	-----	-----	-----		1090 (n/a)	39700 (n/a)	Dry	Dry	-----	2470 (n/a)	3380 (n/a)	-----	-----	Dry
Total Dissolved Solids	8/27/2019	mg/L	948 (n/a)	10800 (n/a)	498 (n/a)	-----	-----	-----		1220 (n/a)	27000 (n/a)	Dry	Dry	-----	2760 (n/a)	1690 (n/a)	-----	-----	Dry
Total Dissolved Solids	3/26/2020	mg/L	310 (n/a)	11700 (n/a)	438 (n/a)	-----	-----	-----		1260 (n/a)	37000 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Total Dissolved Solids	9/1/2020	mg/L	354 (n/a)	11300 (n/a)	434 (n/a)	-----	-----	-----		1400 (n/a)	16100 (n/a)	Dry	Dry	-----	7340 (n/a)	-----	-----	-----	Dry
Total Dissolved Solids	3/18/2021	mg/L	343 (10)	12800 (500)	555 (10)	-----	-----	-----		1500 (20)	2470 (66.7)	Dry	Dry	2270 (143)	7050 (500)	2800 (1000)	2880 (100)	2070 (66.7)	Dry
Total Dissolved Solids	9/16/2021	mg/L	329 (5)	12200 (333)	467 (10)	372 (10)	405 (10)	-----		1560 (20)	23200 (2000)	Dry	Dry		8450 (500)	9180 (250)	2990 (66.7)	-----	Dry
Total Dissolved Solids	10/8/2021	mg/L	-----	-----	-----	-----	-----	40800 (2000)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	3/15/2022	mg/L	268 (50)	11000 (250)	440 (50)	314 (50)	364 (50)	-----		1040 (250)	40700 (2500)	Dry	Dry	Dry	9980 (500)	10700 (250)	2880 (500)	5570 (250)	Dry
Total Dissolved Solids	4/19/2022	mg/L	-----	-----	-----	-----	-----	33200 (2500)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	9/23/2022	mg/L	368 (50)	11600 (250)	402 (50)	354 (50)	366 (50)	-----		1480 (50)	54900 (2500)	Dry	Dry	Dry	Dry	11400 (250)	-----	195 (250)	44400 (2500)
Total Dissolved Solids	3/20/2023	mg/L	268 (50)	8700 (2500)	404 (50)	324 (50)	358 (50)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Total Dissolved Solids	5/8/2023	mg/L						37800 (2500)	2700 (50)										
Total Dissolved Solids	9/26/2023	mg/L	300 (50.0)	11000 (500)	394 (50.0)	318 (50.0)	398 (50.0)	-----		1930 (50.0)	63200 (2500)	Dry	Dry	Dry	14900 (2500)	13800 (2500)	5500 (2500)	Dry	40700 (2500)
Total Dissolved Solids	3/18/2024	mg/L	304 (50.0)	11000 (500)	382 (50.0)	340 (50.0)	352 (50.0)	-----		1600 (250)	22300 (2500)	Dry	Dry	Dry	9100 (2500)	3200 (2500)	6000 (2500)	2600 (2500)	46500 (2500)
Total Dissolved Solids	9/17/2024	mg/L	296 (50.0)	7900 (2500)	364 (50.0)	338 (50.0)	346 (50.0)	532	-----	-----	38100 (2500)	Dry	Dry	Dry	10500 (500)	3560 (500)	6630 (250)	1470 (250)	39300 (2500)
Vanadium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Vanadium	9/4/2018	mg/L	0.00573 (n/a)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)	0.00846 (n/a)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Vanadium	3/18/2019	mg/L	ND (0.005)	ND (0.00082)	ND (0.005)	-----	-----	-----		ND (0.005)	ND (0.5)	Dry	Dry	-----	0.0057 (n/a)	ND (0.05)	-----	-----	Dry
Vanadium	8/27/2019	mg/L	ND (0.00082)	ND (0.00082)	ND (0.005)	-----	-----	-----		ND (0.00082)	0.0294 (n/a)	Dry	Dry	-----	ND (0.005)	ND (0.005)	-----	-----	Dry
Vanadium	3/26/2020	mg/L	ND (0.005)	ND (0.05)	0.000971 (n/a)	-----	-----	-----		ND (0.005)	0.0378 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Vanadium	9/1/2020	mg/L	ND (0.00085)	0.00179 (n/a)	ND (0.00085)	-----	-----	-----		ND (0.00085)	0.124 (n/a)	Dry	Dry	-----	ND (0.00085)	-----	-----	-----	Dry
Vanadium	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)	0.0413 (0.01)	Dry	Dry	0.016 (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	Dry
Vanadium	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----		ND (0.01)	0.226 (0.01)	Dry	Dry		ND (0.01)	ND (0.1)	ND (0.01)	-----	Dry
Vanadium	10/8/2021	mg/L	-----	-----	-----	-----	-----	96.4 (0.5)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vanadium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.02)	0.493 (0.1)	Dry	Dry	Dry	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Vanadium	4/19/2022	mg/L	-----	-----	-----	-----	-----	44.4 (1)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vanadium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.035)	0.0657 (0.005)	Dry	Dry	Dry	Dry	0.0236 (0.005)	-----	0.00978 (0.005)	0.0221 (0.005)
Vanadium	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Vanadium	5/8/2023	mg/L						40.5 (0.5)	1190 (21)										
Vanadium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)	0.0652 (0.0500)	Dry	Dry	Dry	ND (0.0500)	0.347 (0.0500)	ND (0.0500)	Dry	ND (0.0500)
Vanadium	3/18/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.00500)	0.177 (0.005)	Dry	Dry	Dry	ND (0.00500)	0.0584 (0.00500)	ND (0.00500)	ND (0.00500)	ND (1.00)
Vanadium	9/17/2024	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	33.6	1710	-----	ND (0.250)	Dry	Dry	Dry	ND (0.00500)	0.0123 (0.00500)	ND (0.00500)	0.00966 (0.00500)	ND (0.100)
Zinc	3/12/2018	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	-----	-----	-----		-----	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Zinc	9/4/2018	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	-----	-----	-----		0.0207 (n/a)	ND (0.02)	Dry	Dry	-----	ND (1)	ND (0.02)	-----	ND (0.08)	Dry
Zinc	3/18/2019	mg/L	ND (0.02)	ND (0.01)	ND (0.02)	-----	-----	-----		ND (0.02)	ND (2)	Dry	Dry	-----	0.0408 (n/a)	ND (0.2)	-----	-----	Dry
Zinc	8/27/2019	mg/L	ND (0.01)	ND (0.01)	ND (0.02)	-----	-----	-----		ND (0.01)	ND (0.1)	Dry	Dry	-----	0.0214 (n/a)	ND (0.02)	-----	-----	Dry
Zinc	3/26/2020	mg/L	ND (0.02)	ND (0.2)	0.0126 (n/a)	-----	-----	-----		ND (0.02)	ND (0.2)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Zinc	9/1/2020	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)	ND (0.01)	Dry	Dry	-----	ND (0.01)	-----	-----	-----	Dry
Zinc	3/18/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	-----	-----	-----		ND (0.05)	ND (0.05)	Dry	Dry	0.0834 (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Zinc	9/16/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	-----		ND (0.05)	ND (0.05)	Dry	Dry		ND (0.05)	ND (0.05)	ND (0.05)	-----	Dry
Zinc	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (2.5)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Zinc	3/15/2022	mg/L	ND (0.02)	ND (0.2)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.08)	ND (0.4)	Dry	Dry	Dry	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	Dry
Zinc	4/19/2022	mg/L	-----	-----	-----	-----	-----	1.55 (0.02)		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Zinc	9/23/2022	mg/L	ND (0.02)	ND (0.14)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.14)	ND (0.0200)	Dry	Dry	Dry	Dry	0.0277 (0.02)	-----	ND (0.02)	6.04 (0.200)
Zinc	3/20/2023	mg/L	ND (0.02)	ND (0.2)	ND (0.02)	ND (0.02)	ND (0.02)	-----		-----	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Zinc	5/8/2023	mg/L						ND (0.6)	ND (14)										
Zinc	9/26/2023	mg/L	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	-----		ND (0.0800)	ND (0.200)	Dry	Dry	Dry	ND (0.200)	ND (0.200)	ND (0.200)	Dry	0.345 (0.200)
Zinc	3/18/2024	mg/L	ND (0.0200)	ND (2.00)	ND (0.0200)	ND (0.0200)	ND (0.0200)	-----		ND (0.0200)	ND (4.00)	Dry	Dry	Dry	ND (2.00)	ND (0.400)	ND (0.400)	ND (0.0800)	ND (4.00)
Zinc	9/17/2024	mg/L	ND (0.0200)	ND (1.26)	ND (0.0200)	ND (0.0200)	ND (0.0200)	0.0632	17.2	-----	ND (1.00)	Dry	Dry	Dry	ND (0.500)	ND (0.400)	ND (0.0200)	ND (0.0200)	ND (0.400)

Notes:
mg/L - milligrams per Liter
ug/L - micrograms per Liter
umhos/cm - microhos per centimeter
n/a - not applicable
SU - standard unit
ND = non detect
(10) - detection limit
NS - Not Sampled
*Stope Well MW-2CR was sampled 8/12/24 by Geosyntec

FIGURES

CONTINENTAL ANNUAL WATER QUALITY REPORT



FIGURE

1

Sheet Name:

Hydrograph

Project Mgr.	KB	Job No.:	3433
Drawn By:	KM	Date:	10/17/2024
Checked By:	JK	Rev:	

Continental Cement
Buffalo, Iowa
301 East Front Street Buffalo, Iowa

BLACKSTONE ENVIRONMENTAL

APPENDIX A

CONTINENTAL ANNUAL WATER QUALITY REPORT
Field Information Forms

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 3-18-24 & 3-19

Weather Conditions: Sunny w350

Purging/Sampling Device: Hydrasleeve

Samplers: Tyler Sundell

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments
MW-1B	1000	23.25	—	10.03	6.82	1128	84.0	2.16	clear
MW-2A	~~1130~~	27.32	—	31.70	6.89	1042	69.9	1.37	clear
MW-1A	1015	31.71	—	11.76	7.09	694	86.7	2.09	low volume
MW-3	—	90.52	—						
MW-3L	1200	91.74	—	14.60	6.83	~~701~~	80.0	0.70	clear
MW-4	1540	5.79	—	9.20	10.89	9963	81.5	0.75	sli. yellow, black ppts
MW-4L	1600	7.65	—	9.94	10.59	13160	90.9	1.19	sli. yellow, black ppts
MW-5	1450	3.16	—	10.26	7.47	3037	100.9	6.64	sli. sulf. odor, black & orange ppts.
MW-7 (3-19)	0715	123.07	—	8.94	7.20	570	90.9	1.84	clear
MW-11	1230	58.01	—	12.82	10.57	11380	27.5	0.69	sli. yellow, no ppts.
MW-12	1425	49.63	—	10.10	8.26	2615	100.2	1.76	Sli. Sulf. odor, black ppts.
MW-13	1430	55.92	—	14.60	7.10	1103	67.0	0.65	

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date:

Weather Conditions:

Purging/Sampling Device: Hydrasleeves

Samplers:

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments
MW-14	1420	-	-	12.99	7.19	7057	86.6	0.98	Orange, slt. surf cg
MW-15	1455	62.75		13.33	7.22	914	55.7	1.39	clear
MW-16	1330	9.71	-	13.83	6.89	1886	73.6	1.32	clear
MW-16L	1335	7.93	-	15.38	7.15	880	62.7	1.99	clear
MW-18	1610	7.68	-	9.85	10.56	13500	32.8	0.81	yellow, slt. sulfide,
MW-19	0925	139.52	-	7.82	7.02	709	86.0	1.06	Dupe collected
MW-20	1515	88.01		13.81	7.01	626	79.1	0.90	
MW-21	1100	138.40	-	15.02	6.84	638	79.4	1.22	clear w/ gray ppt
Q-Sump	1300	29.75	-	8.05	8.46	2224	68.9	9.92	slt. green
MW-2CR									

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT MONITORING POINT SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 3-18-24

Weather Conditions: Cloudy ~30°F

Purging/Sampling Device: Bailer

Samplers: Tyler Sandell

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity ~~(µS/cm)~~ mS/cm	ORP	DO (mg/L)	Comments (Volume Purged & Final Water Level)
MW-9	—	97.34	—	Insuff. vol. for sample					
MW-10	—	Dry	—						
UL-1	—	—	9.61	Dry					
LL-1	1225	20.81	24.64	12.51	12.90	14,410	94.8	9.50	P.V. = Sample FWL-23.13
L-Sump	1210	9.48	—	10.20	12.50	36,100	27.8	6.43	—
UL-2R	1315	9.46	10.17	6.70	12.76	8116	89.5	4.11	PV = ~2 gal FWL-9.55
LL-2	1310	8.91	10.90	9.64	7.40	8700	121.5	3.03	PV = ~5 gal FWL-9.03
UL-3R	1355	8.98	10.35	7.52	12.71	5096	92.7	4.81	PV = Sample FWL-10.01
LL-3	1345	8.77	10.72	8.83	10.25	48820	121.3	1.24	PV = ~2 gal FWL-9.33

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill **Date:** 9/17/24

Weather Conditions: Sunny **Purging/Sampling Device:** Hydrasleeve

Samplers: LS **Analytical Parameters:** See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments
MW-1B	1058	25.74		13.54	5.98	994	91.3	2.65	
MW-2A	1520	28.11		38.64	1.84	22135	434.8	4.96	low volume mobile to fill 1L bottle
MW-1A	1105	133.55							
MW-3									
MW-4	0840	6.74		18.35	10.20	10843	+57.0	1.12	
MW-5	~~1245~~	~~15.45~~		16.59	7.01	2965	32.7	11.33	
MW-11	1235	57.20		14.91	9.52	6014	-239.9	~~20.50~~	
MW-12	350	50.83	—	14.30	6.12	~~880~~ 1279	-72.5	2.90	
MW-13	1415	54.70		14.11	5.88	886	-109.7	1.80	
MW-14	740	12.45		16.18	6.76	6803	-20.7	11.83	
MW-15	1350	066.87		14.64	6.51	904	-31.0	3.89	
MW-16	940	10.40		15.20	6.65	1456	-33.1	2.50	

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 9/17/24

Weather Conditions: Sunny

Purging/Sampling Device: Hydrasleeves

Samplers: LS

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments
MW-18		6.62		14.04	5.34	17154	-146.9	1.10	
MW-3L	1500	95.10		15.72	6.18	718	-29.0	1.58	
MW-4L	0810	9.55		13.48	10.29	12953	-144.5	13.55	
MW-7	1220	120.74		13.15	8.81	1114	52.5	10.38	
MW-16L	950	6.60		15.72	5.67	588	-33.1	3.25	
MW-19	1150	142.79		15.19	6.44	685	3.7	4.28	
Q-Sump	930	30.50							
MW-2CR	~~1045~~								
MW-20	1310	86.85		~~15.95~~	7.08	~~613~~	47.0	1645	
MW-21	1130	141.23		18.59	6.93	657	-24.9	~~3~~ 12.53	

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT MONITORING POINT SAMPLING LOG

Site Name: Continental Cement CKD Monofill **Date:**

Weather Conditions: **Purging/Sampling Device:**

Samplers: **Analytical Parameters:** See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments (Volume Purged & Final Water Level)
MW-9	1420	Dry							
MW-10	1430	Dry							
UL-1	1344	Dry							
LL-1	1355	21.32	24.6	17.53	10.58	11120	-146.8	22.38	
L-Sump	1410	4.98	—	19.50	10.61	28834	-222.3	~~17.27~~	
UL-2	1335	~~7~~.7.47	20.20	19.33	5.17	4559	134.6	20.69	
LL-2		~~6.23~~	~~10.89~~					~~20.64~~	
UL-3	1300	9:40	10.39	20.52	11.64	3365	131.7	11.18	
LL-3	1320	7.34	10.73	18.05	9.40	24150	-131.0	14.33	

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

APPENDIX B

CONTINENTAL ANNUAL WATER QUALITY REPORT

Laboratory Analytical Reports

SEPTEMBER 2024 LABORATORY REPORT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Lucas Spriggs
Blackstone Environmental, Inc
16200 Foster Street
Overland Park, Kansas 66085

Generated 10/7/2024 4:28:48 PM

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-290957-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

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 North Central, LLC Project Manager.

Authorization

Generated
10/7/2024 4:28:48 PM

Authorized for release by
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-290957-1 — Eurofins Cedar Falls

Job Narrative
310-290957-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 sample was received on 9/19/2024 11:10 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C.

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

Metals
Method 6020B: The initial calibration verification (ICV) result for batch 310-435214 was above the upper control limit. The affected analytes are: Silver. Sample results were non-detects, and have been reported as qualified data.

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.

Job Narrative
310-290957-2

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 sample was received on 9/19/2024 11:10 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C.

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

Sample Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290957-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-290957-1	MW-5	Water	09/18/24 07:45	09/19/24 11:10

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290957-1

Client Sample ID: MW-5

Lab Sample ID: 310-290957-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	417		100		mg/L	100		9056A	Total/NA
Fluoride	0.636		0.200		mg/L	1		9056A	Total/NA
Sulfate	770		100		mg/L	100		9056A	Total/NA
Barium	0.0289		0.00200		mg/L	1		6020B	Total/NA
Boron	0.182		0.100		mg/L	1		6020B	Total/NA
Calcium	415		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0804		0.0100		mg/L	1		6020B	Total/NA
Magnesium	118		2.00		mg/L	4		6020B	Total/NA
Manganese	0.0142		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00348		0.00200		mg/L	1		6020B	Total/NA
Potassium	238		2.00		mg/L	4		6020B	Total/NA
Sodium	52.1		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	254		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	254		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2690		250		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290957-1

Client Sample ID: MW-5

Date Collected: 09/18/24 07:45
Date Received: 09/19/24 11:10

Lab Sample ID: 310-290957-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 16:13	1
Chloride	**417**		100		mg/L			09/20/24 14:02	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 23:58	1
Fluoride	**0.636**		0.200		mg/L			09/19/24 23:58	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 23:58	1
Sulfate	**770**		100		mg/L			09/20/24 14:02	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/03/24 15:09	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/03/24 15:09	1
Barium	**0.0289**		0.00200		mg/L		09/20/24 09:00	10/03/24 15:09	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 15:09	1
Boron	**0.182**		0.100		mg/L		09/20/24 09:00	10/03/24 15:09	1
Calcium	**415**		0.500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Lithium	**0.0804**		0.0100		mg/L		09/20/24 09:00	10/03/24 15:09	1
Magnesium	**118**		2.00		mg/L		09/20/24 09:00	10/04/24 15:49	4
Manganese	**0.0142**		0.0100		mg/L		09/20/24 09:00	10/03/24 15:09	1
Molybdenum	**0.00348**		0.00200		mg/L		09/20/24 09:00	10/03/24 15:09	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Potassium	**238**		2.00		mg/L		09/20/24 09:00	10/04/24 15:49	4
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Silver	<0.00100	^1+	0.00100		mg/L		09/20/24 09:00	10/03/24 15:09	1
Sodium	**52.1**		1.00		mg/L		09/20/24 09:00	10/03/24 15:09	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 15:09	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 15:09	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/03/24 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100	F2 F1	0.100		mg/L		09/20/24 16:23	09/23/24 11:54	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**254**		5.00		mg/L			09/25/24 18:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**254**		5.00		mg/L			09/25/24 18:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/25/24 18:51	1
Total Dissolved Solids (SM 2540C)	**2690**		250		mg/L			09/23/24 17:41	1

Definitions/Glossary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290957-1

Qualifiers

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-433882/3
Matrix: Water
Analysis Batch: 433882

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			09/19/24 19:26	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 19:26	1
Fluoride	<0.200		0.200		mg/L			09/19/24 19:26	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 19:26	1
Sulfate	<1.00		1.00		mg/L			09/19/24 19:26	1

Lab Sample ID: LCS 310-433882/4
Matrix: Water
Analysis Batch: 433882

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.940		mg/L		99	90 - 110
Nitrate as N	2.00	2.083		mg/L		104	90 - 110
Fluoride	2.00	1.997		mg/L		100	90 - 110
Nitrite as N	2.00	2.024		mg/L		101	90 - 110
Sulfate	10.0	10.20		mg/L		102	90 - 110

Lab Sample ID: MB 400-686094/5
Matrix: Water
Analysis Batch: 686094

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 15:10	1

Lab Sample ID: LCS 400-686094/6
Matrix: Water
Analysis Batch: 686094

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.58	8.842		mg/L		103	90 - 110

Lab Sample ID: LCSD 400-686094/7
Matrix: Water
Analysis Batch: 686094

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.58	8.637		mg/L		101	90 - 110	2	15

Lab Sample ID: 310-290957-1 MS
Matrix: Water
Analysis Batch: 686094

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	<1.00		8.58	7.517		mg/L		88	80 - 120

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

Lab Sample ID: 310-290957-1 MSD
Matrix: Water
Analysis Batch: 686094

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<1.00		8.58	8.291		mg/L		97	80 - 120	10	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-433736/1-A
Matrix: Water
Analysis Batch: 435214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433736

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/03/24 14:07	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/03/24 14:07	1
Barium	<0.00200		0.00200		mg/L		09/20/24 09:00	10/03/24 14:07	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 14:07	1
Boron	<0.100		0.100		mg/L		09/20/24 09:00	10/03/24 14:07	1
Calcium	<0.500		0.500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Lithium	<0.0100		0.0100		mg/L		09/20/24 09:00	10/03/24 14:07	1
Manganese	<0.0100		0.0100		mg/L		09/20/24 09:00	10/03/24 14:07	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/03/24 14:07	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Potassium	<0.500		0.500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Silver	<0.00100	^1+	0.00100		mg/L		09/20/24 09:00	10/03/24 14:07	1
Sodium	<1.00		1.00		mg/L		09/20/24 09:00	10/03/24 14:07	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 14:07	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/03/24 14:07	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/03/24 14:07	1

Lab Sample ID: MB 310-433736/1-A
Matrix: Water
Analysis Batch: 435361

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433736

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	<0.500		0.500		mg/L		09/20/24 09:00	10/04/24 15:05	1

Lab Sample ID: LCS 310-433736/2-A
Matrix: Water
Analysis Batch: 435214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2179		mg/L		109	80 - 120
Antimony	0.200	0.2251		mg/L		113	80 - 120
Barium	0.100	0.1042		mg/L		104	80 - 120
Beryllium	0.100	0.1022		mg/L		102	80 - 120
Boron	0.200	0.2047		mg/L		102	80 - 120
Calcium	2.00	2.011		mg/L		101	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-433736/2-A
Matrix: Water
Analysis Batch: 435214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.100	0.09842		mg/L		98	80 - 120
Cobalt	0.100	0.1126		mg/L		113	80 - 120
Copper	0.200	0.2177		mg/L		109	80 - 120
Lead	0.200	0.2134		mg/L		107	80 - 120
Lithium	0.200	0.2096		mg/L		105	80 - 120
Manganese	0.100	0.09752		mg/L		98	80 - 120
Molybdenum	0.200	0.1995		mg/L		100	80 - 120
Nickel	0.200	0.2125		mg/L		106	80 - 120
Potassium	2.00	2.172		mg/L		109	80 - 120
Selenium	0.400	0.4083		mg/L		102	80 - 120
Silver	0.100	0.1124	^1+	mg/L		112	80 - 120
Sodium	2.00	2.191		mg/L		110	80 - 120
Thallium	0.100	0.09716		mg/L		97	80 - 120
Vanadium	0.100	0.09401		mg/L		94	80 - 120
Zinc	0.200	0.1947		mg/L		97	80 - 120

Lab Sample ID: LCS 310-433736/2-A
Matrix: Water
Analysis Batch: 435361

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	2.00	1.987		mg/L		99	80 - 120

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-433863/1-A
Matrix: Water
Analysis Batch: 433964

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/20/24 16:23	09/23/24 11:54	1

Lab Sample ID: LCS 310-433863/2-A
Matrix: Water
Analysis Batch: 433964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	1.068		mg/L		107	90 - 110

Lab Sample ID: 310-290957-1 MS
Matrix: Water
Analysis Batch: 433964

Client Sample ID: MW-5
Prep Type: Total/NA
Prep Batch: 433863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	<0.100	F2 F1	1.00	1.025		mg/L		102	90 - 110

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: 310-290957-1 MSD
Matrix: Water
Analysis Batch: 433964

Client Sample ID: MW-5
Prep Type: Total/NA
Prep Batch: 433863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100	F2 F1	1.00	0.8497	F2 F1	mg/L		85	90 - 110	19	18

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-434354/2
Matrix: Water
Analysis Batch: 434354

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	916.0		mg/L		92	86 - 111

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-434029/1
Matrix: Water
Analysis Batch: 434029

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/23/24 17:41	1

Lab Sample ID: LCS 310-434029/2
Matrix: Water
Analysis Batch: 434029

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1046		mg/L		105	88 - 110

HPLC/IC

Analysis Batch: 433882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	9056A	
310-290957-1	MW-5	Total/NA	Water	9056A	
MB 310-433882/3	Method Blank	Total/NA	Water	9056A	
LCS 310-433882/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 686094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	9056A	
MB 400-686094/5	Method Blank	Total/NA	Water	9056A	
LCS 400-686094/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-686094/7	Lab Control Sample Dup	Total/NA	Water	9056A	
310-290957-1 MS	MW-5	Total/NA	Water	9056A	
310-290957-1 MSD	MW-5	Total/NA	Water	9056A	

Metals

Prep Batch: 433736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	3005A	
MB 310-433736/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-433736/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 435214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	6020B	433736
MB 310-433736/1-A	Method Blank	Total/NA	Water	6020B	433736
LCS 310-433736/2-A	Lab Control Sample	Total/NA	Water	6020B	433736

Analysis Batch: 435361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	6020B	433736
MB 310-433736/1-A	Method Blank	Total/NA	Water	6020B	433736
LCS 310-433736/2-A	Lab Control Sample	Total/NA	Water	6020B	433736

General Chemistry

Prep Batch: 433863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	365.1	
MB 310-433863/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-433863/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-290957-1 MS	MW-5	Total/NA	Water	365.1	
310-290957-1 MSD	MW-5	Total/NA	Water	365.1	

Analysis Batch: 433964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	365.1	433863
MB 310-433863/1-A	Method Blank	Total/NA	Water	365.1	433863
LCS 310-433863/2-A	Lab Control Sample	Total/NA	Water	365.1	433863
310-290957-1 MS	MW-5	Total/NA	Water	365.1	433863
310-290957-1 MSD	MW-5	Total/NA	Water	365.1	433863

QC Association Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290957-1

General Chemistry

Analysis Batch: 434029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	SM 2540C	
MB 310-434029/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-434029/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 434354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290957-1	MW-5	Total/NA	Water	SM 2320B	
LCS 310-434354/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290957-1

Client Sample ID: MW-5

Date Collected: 09/18/24 07:45
Date Received: 09/19/24 11:10

Lab Sample ID: 310-290957-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433882	HE7K	EET CF	09/19/24 23:58
Total/NA	Analysis	9056A		100	433882	HE7K	EET CF	09/20/24 14:02
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 16:13
Total/NA	Prep	3005A			433736	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		4	435361	NFT2	EET CF	10/04/24 15:49
Total/NA	Prep	3005A			433736	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435214	NFT2	EET CF	10/03/24 15:09
Total/NA	Prep	365.1			433863	T5AC	EET CF	09/20/24 16:23
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 11:54
Total/NA	Analysis	SM 2320B		1	434354	HE7K	EET CF	09/25/24 18:51
Total/NA	Analysis	SM 2540C		1	434029	ENB7	EET CF	09/23/24 17:41

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-290957-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

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

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
SM 2320B		Water	Total Alkalinity as CaCO3 to pH 4.5
SM 2540C		Water	Total Dissolved Solids

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-25
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-25
California	State	2510	06-30-25
Florida	NELAP	E81010	06-30-25
Georgia	State	E81010(FL)	06-30-25
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-25
Louisiana (All)	NELAP	30976	06-30-25
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-25
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-25
Tennessee	State	TN02907	06-30-25
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-25
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	01-09-26
Virginia	NELAP	460166	06-14-25
West Virginia DEP	State	136	03-31-25

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290957-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET PEN
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

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

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing America

310-290957 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 9-19-24 | TIME 1110 | Received By CE

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☒ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes ☐ No	*If yes:* Cooler ID
Multiple Coolers?	☐ Yes ☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☐ Yes ☐ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☐ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE

Thermometer ID: W | Correction Factor (°C): C

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 3.4 | Corrected Temp (°C): 3.4

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: LS	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Lucas Spriggs	Phone: 785 219 7531	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 16200 Foster Street	Due Date Requested:			
City: Overland Park	TAT Requested (days):			
State, Zip: KS	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: tsundell@blackstone-env.com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9056A_ORGFM - (MOD) - Bromate (sub 250ml NT to Pensacola)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW-5	9/18/24	0745					X	X	X	X	X	X	X		Nitrates- 48hr hold time

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

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

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

Special Instructions/QC Requirements.

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	9/19/24 1110				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: CC	Date/Time: 9-19-24 1110	Company

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-76555.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): State - Iowa		Job #: 310-290957-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/2/2024			Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-5 (310-290957-1)	9/18/24	07:45 Central	G	Water			X		

Analysis Requested

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		9/19/24 1400				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/20/24 9:44	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7°C IR8

Ver: 05/06/2024


ORIGIN ID:ALOA (319) 277-2401
SAMPLE RECEIVING
EUROFINS TESTAMERICA
3019 VENTURE WAY
CEDAR FALLS, IA
UNITED STATES US
SHIP DATE: 19SEP24
ACTWGT: 23.85 LB
...970970/CAFE3808
TO
...HIPPING
...ROFINS
...5 MCLL...
PENSACOLA FL 32514
(850) 47...-1001
REF: S...0-980...1
RT 574
10:30
G SOUTHE
2.7°C
MBA
FedEx Express
E
J241023112201uv
585C2/4EF9/C6C4
FRI - 20
PRIORITY
TRK# 0201 4085 8612 0863
XH PNSA
32514
FL-US BFM
TAL-0090(1016)

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-290957-1
SDG Number:

Login Number: 290957
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-290957-1
SDG Number:

Login Number: 290957
List Number: 2
Creator: Roberts, Darrien

List Source: Eurofins Pensacola
List Creation: 09/20/24 06:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	2.7°C IR8
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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Lucas Spriggs
Blackstone Environmental, Inc
16200 Foster Street
Overland Park, Kansas 66085

Generated 10/4/2024 1:28:14 PM

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-290900-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

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 North Central, LLC Project Manager.

Authorization

Generated
10/4/2024 1:28:14 PM

Authorized for release by
Conner Calhoun, Project Management Assistant I
Conner.Calhoun@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-290900-1 — Eurofins Cedar Falls

Job Narrative
310-290900-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 9/18/2024 6:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.2°C, 2.7°C, 3.0°C and 5.1°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW2A (310-290900-12). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: L Sump (310-290900-9). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: LL-3 (310-290900-22). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: MW18 (310-290900-1), MW4L (310-290900-2), UL2 (310-290900-8), L Sump (310-290900-9), LL-1 (310-290900-10), MW4 (310-290900-13) and MW11 (310-290900-14). The sample(s) was preserved to the appropriate pH in the laboratory.

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.

Job ID: 310-290900-2 — Eurofins Cedar Falls

Job Narrative
310-290900-2

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 9/18/2024 6:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.2°C, 2.7°C, 3.0°C and 5.1°C.

HPLC/IC
Method 9056A_ORGFM_48H: The following sample was diluted due to the nature of the sample matrix: MW2A (310-290900-12). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_48H: The following sample was diluted due to the nature of the sample matrix: L Sump (310-290900-9). Elevated reporting limits (RLs) are provided.

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

Sample Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-290900-1	MW18	Water	09/18/24 08:25	09/18/24 18:45
310-290900-2	MW4L	Water	09/18/24 08:10	09/18/24 18:45
310-290900-3	MW7	Water	09/18/24 12:20	09/18/24 18:45
310-290900-4	MW16L	Water	09/18/24 09:50	09/18/24 18:45
310-290900-5	MW19	Water	09/18/24 11:50	09/18/24 18:45
310-290900-6	MW20	Water	09/18/24 13:10	09/18/24 18:45
310-290900-7	MW21	Water	09/18/24 11:30	09/18/24 18:45
310-290900-8	UL2	Water	09/18/24 13:35	09/18/24 18:45
310-290900-9	L Sump	Water	09/18/24 14:10	09/18/24 18:45
310-290900-10	LL-1	Water	09/18/24 13:55	09/18/24 18:45
310-290900-11	MW1B	Water	09/18/24 10:58	09/18/24 18:45
310-290900-12	MW2A	Water	09/17/24 15:20	09/18/24 18:45
310-290900-13	MW4	Water	09/18/24 08:40	09/18/24 18:45
310-290900-14	MW11	Water	09/18/24 12:35	09/18/24 18:45
310-290900-15	MW12	Water	09/18/24 15:50	09/18/24 18:45
310-290900-16	MW13	Water	09/18/24 14:15	09/18/24 18:45
310-290900-17	MW14	Water	09/18/24 07:40	09/18/24 18:45
310-290900-18	MW15	Water	09/17/24 13:50	09/18/24 18:45
310-290900-19	MW16	Water	09/18/24 09:40	09/18/24 18:45
310-290900-20	MW3L	Water	09/17/24 15:00	09/18/24 18:45
310-290900-21	UL-3	Water	09/18/24 13:00	09/18/24 18:45
310-290900-22	LL-3	Water	09/18/24 13:20	09/18/24 18:45
310-290900-23	LL-2	Water	09/18/24 13:35	09/18/24 18:45
310-290900-24	MW-1A	Water	09/18/24 11:05	09/18/24 18:45

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW18 — Lab Sample ID: 310-290900-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1420		100		mg/L	100		9056A	Total/NA
Fluoride	1.61		0.200		mg/L	1		9056A	Total/NA
Sulfate	2930		100		mg/L	100		9056A	Total/NA
Arsenic	0.0113		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0160		0.00200		mg/L	1		6020B	Total/NA
Boron	0.322		0.100		mg/L	1		6020B	Total/NA
Calcium	2.01	F1	0.500		mg/L	1		6020B	Total/NA
Lead	0.000546		0.000500		mg/L	1		6020B	Total/NA
Manganese	0.0105		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.181		0.126		mg/L	63		6020B	Total/NA
Nickel	0.00752		0.00500		mg/L	1		6020B	Total/NA
Potassium	3920		31.5		mg/L	63		6020B	Total/NA
Silver	0.0693	F1	0.0630		mg/L	63		6020B	Total/NA
Sodium	351		63.0		mg/L	63		6020B	Total/NA
Total Phosphorus as P	0.164		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1310		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	105		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1210		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7900		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW4L — Lab Sample ID: 310-290900-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1470		100		mg/L	100		9056A	Total/NA
Fluoride	1.68		0.200		mg/L	1		9056A	Total/NA
Sulfate	3030		100		mg/L	100		9056A	Total/NA
Arsenic	0.00832		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0129		0.00200		mg/L	1		6020B	Total/NA
Boron	0.317		0.100		mg/L	1		6020B	Total/NA
Calcium	1.73		0.500		mg/L	1		6020B	Total/NA
Molybdenum	0.175		0.126		mg/L	63		6020B	Total/NA
Nickel	0.00646		0.00500		mg/L	1		6020B	Total/NA
Potassium	4000		31.5		mg/L	63		6020B	Total/NA
Sodium	422		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.169		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1340		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	116		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1220		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6600		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW7 — Lab Sample ID: 310-290900-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.29		1.00		mg/L	1		9056A	Total/NA
Nitrate as N	4.46		0.200		mg/L	1		9056A	Total/NA
Sulfate	138		20.0		mg/L	20		9056A	Total/NA
Barium	0.138		0.00200		mg/L	1		6020B	Total/NA
Boron	0.154		0.100		mg/L	1		6020B	Total/NA
Calcium	84.8		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0438		0.0100		mg/L	1		6020B	Total/NA
Magnesium	31.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0879		0.0100		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW7 (Continued) — Lab Sample ID: 310-290900-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	7.08		0.500		mg/L	1		6020B	Total/NA
Sodium	22.1		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	333		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	333		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	350		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW16L — Lab Sample ID: 310-290900-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.11		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.306		0.200		mg/L	1		9056A	Total/NA
Sulfate	33.8		1.00		mg/L	1		9056A	Total/NA
Barium	0.0753		0.00200		mg/L	1		6020B	Total/NA
Boron	0.244		0.100		mg/L	1		6020B	Total/NA
Calcium	96.4		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000596		0.000500		mg/L	1		6020B	Total/NA
Lead	0.00130		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0232		0.0100		mg/L	1		6020B	Total/NA
Magnesium	36.5		0.500		mg/L	1		6020B	Total/NA
Manganese	0.100		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.23		0.500		mg/L	1		6020B	Total/NA
Sodium	12.1		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	291		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	291		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	296		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW19 — Lab Sample ID: 310-290900-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.82		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.284		0.200		mg/L	1		9056A	Total/NA
Sulfate	32.8		1.00		mg/L	1		9056A	Total/NA
Barium	0.119		0.00200		mg/L	1		6020B	Total/NA
Boron	0.242		0.100		mg/L	1		6020B	Total/NA
Calcium	105		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00135		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0301		0.0100		mg/L	1		6020B	Total/NA
Magnesium	41.1		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0152		0.0100		mg/L	1		6020B	Total/NA
Potassium	3.85		0.500		mg/L	1		6020B	Total/NA
Sodium	19.0		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	363		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	363		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	364		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW20 — Lab Sample ID: 310-290900-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.53		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.460		0.200		mg/L	1		9056A	Total/NA
Sulfate	36.7		1.00		mg/L	1		9056A	Total/NA
Barium	0.0643		0.00200		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW20 (Continued) — Lab Sample ID: 310-290900-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.364		0.100		mg/L	1		6020B	Total/NA
Calcium	86.0		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0319		0.0100		mg/L	1		6020B	Total/NA
Magnesium	37.3		0.500		mg/L	1		6020B	Total/NA
Potassium	5.78		0.500		mg/L	1		6020B	Total/NA
Sodium	16.8		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.121		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	327		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	327		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	338		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW21 — Lab Sample ID: 310-290900-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.68		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.276		0.200		mg/L	1		9056A	Total/NA
Sulfate	27.1		1.00		mg/L	1		9056A	Total/NA
Barium	0.140		0.00200		mg/L	1		6020B	Total/NA
Boron	0.209		0.100		mg/L	1		6020B	Total/NA
Calcium	95.9		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0265		0.0100		mg/L	1		6020B	Total/NA
Magnesium	35.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0178		0.0100		mg/L	1		6020B	Total/NA
Potassium	3.16		0.500		mg/L	1		6020B	Total/NA
Sodium	16.3		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	357		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	357		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	346		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: UL2 — Lab Sample ID: 310-290900-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	470		100		mg/L	100		9056A	Total/NA
Fluoride	0.230		0.200		mg/L	1		9056A	Total/NA
Sulfate	195		100		mg/L	100		9056A	Total/NA
Arsenic	0.00614		0.00200		mg/L	1		6020B	Total/NA
Barium	0.447		0.00200		mg/L	1		6020B	Total/NA
Calcium	1170		10.0		mg/L	20		6020B	Total/NA
Lead	0.00681		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.336		0.200		mg/L	20		6020B	Total/NA
Magnesium	5.85		0.500		mg/L	1		6020B	Total/NA
Molybdenum	0.0641		0.0400		mg/L	20		6020B	Total/NA
Nickel	0.0389		0.00500		mg/L	1		6020B	Total/NA
Potassium	1250		20.0		mg/L	40		6020B	Total/NA
Selenium	0.0572		0.00500		mg/L	1		6020B	Total/NA
Sodium	90.1		1.00		mg/L	1		6020B	Total/NA
Thallium	0.00586		0.00100		mg/L	1		6020B	Total/NA
Vanadium	0.0123		0.00500		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1280		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	46.8		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	3560		500		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: L Sump — Lab Sample ID: 310-290900-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11600		1000		mg/L	1000		9056A	Total/NA
Nitrate as N	3.71		1.00		mg/L	5		9056A	Total/NA
Sulfate	7580		100		mg/L	100		9056A	Total/NA
Arsenic	0.131		0.00200		mg/L	1		6020B	Total/NA
Barium	0.108		0.100		mg/L	50		6020B	Total/NA
Calcium	82.2		25.0		mg/L	50		6020B	Total/NA
Chromium	0.755		0.250		mg/L	50		6020B	Total/NA
Lithium	2.62		0.500		mg/L	50		6020B	Total/NA
Molybdenum	0.135		0.100		mg/L	50		6020B	Total/NA
Nickel	0.0451		0.00500		mg/L	1		6020B	Total/NA
Potassium	18500		125		mg/L	250		6020B	Total/NA
Selenium	0.784		0.00500		mg/L	1		6020B	Total/NA
Sodium	1020		50.0		mg/L	50		6020B	Total/NA
Total Phosphorus as P	0.373		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	2790		50.0		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1040		50.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	38100		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-1 — Lab Sample ID: 310-290900-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	592		100		mg/L	100		9056A	Total/NA
Fluoride	0.635		0.200		mg/L	1		9056A	Total/NA
Sulfate	426		100		mg/L	100		9056A	Total/NA
Barium	0.126		0.00200		mg/L	1		6020B	Total/NA
Calcium	805		12.5		mg/L	25		6020B	Total/NA
Lead	0.0844		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.911		0.250		mg/L	25		6020B	Total/NA
Nickel	0.00944		0.00500		mg/L	1		6020B	Total/NA
Potassium	1510		12.5		mg/L	25		6020B	Total/NA
Selenium	0.0136		0.00500		mg/L	1		6020B	Total/NA
Sodium	74.3		1.00		mg/L	1		6020B	Total/NA
Thallium	0.00482		0.00100		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	3310		50.0		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	94.6		50.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	10500		500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW1B — Lab Sample ID: 310-290900-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.76		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.273		0.200		mg/L	1		9056A	Total/NA
Sulfate	233		20.0		mg/L	20		9056A	Total/NA
Barium	0.0571		0.00200		mg/L	1		6020B	Total/NA
Calcium	171		0.500		mg/L	1		6020B	Total/NA
Magnesium	56.5		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0155		0.0100		mg/L	1		6020B	Total/NA
Potassium	7.12		0.500		mg/L	1		6020B	Total/NA
Sodium	6.21		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	404		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	404		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	822		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW2A — Lab Sample ID: 310-290900-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	39.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	180		5.00		mg/L	5		9056A	Total/NA
Barium	0.0545		0.00200		mg/L	1		6020B	Total/NA
Calcium	148		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00176		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0134		0.0100		mg/L	1		6020B	Total/NA
Magnesium	44.6		0.500		mg/L	1		6020B	Total/NA
Manganese	0.181		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00880		0.00500		mg/L	1		6020B	Total/NA
Potassium	4.25		0.500		mg/L	1		6020B	Total/NA
Sodium	22.3		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	307		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	307		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	602		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW4 — Lab Sample ID: 310-290900-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1120		100		mg/L	100		9056A	Total/NA
Fluoride	1.24		0.200		mg/L	1		9056A	Total/NA
Sulfate	1870		100		mg/L	100		9056A	Total/NA
Arsenic	0.0279		0.00200		mg/L	1		6020B	Total/NA
Barium	0.00927		0.00200		mg/L	1		6020B	Total/NA
Boron	0.250		0.100		mg/L	1		6020B	Total/NA
Calcium	2.57		0.500		mg/L	1		6020B	Total/NA
Molybdenum	0.116		0.0900		mg/L	45		6020B	Total/NA
Nickel	0.00834		0.00500		mg/L	1		6020B	Total/NA
Potassium	3190		22.5		mg/L	45		6020B	Total/NA
Sodium	291		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.184		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1220		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	64.3		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1150		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7380		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW11 — Lab Sample ID: 310-290900-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1210		100		mg/L	100		9056A	Total/NA
Fluoride	1.42		0.200		mg/L	1		9056A	Total/NA
Sulfate	2290		100		mg/L	100		9056A	Total/NA
Arsenic	0.0211		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0139		0.00200		mg/L	1		6020B	Total/NA
Boron	0.278		0.100		mg/L	1		6020B	Total/NA
Calcium	1.71		0.500		mg/L	1		6020B	Total/NA
Molybdenum	0.131		0.100		mg/L	50		6020B	Total/NA
Nickel	0.00773		0.00500		mg/L	1		6020B	Total/NA
Potassium	3500		25.0		mg/L	50		6020B	Total/NA
Sodium	347		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.198		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1280		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	82.1		5.00		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW11 (Continued) — Lab Sample ID: 310-290900-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbonate Alkalinity as CaCO3	1200		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8700		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW12 — Lab Sample ID: 310-290900-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	81.5		1.00		mg/L	1		9056A	Total/NA
Sulfate	196		20.0		mg/L	20		9056A	Total/NA
Barium	0.0777		0.00200		mg/L	1		6020B	Total/NA
Boron	0.870		0.100		mg/L	1		6020B	Total/NA
Calcium	130		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00289		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0585		0.0100		mg/L	1		6020B	Total/NA
Magnesium	68.5		0.500		mg/L	1		6020B	Total/NA
Manganese	1.36		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00819		0.00500		mg/L	1		6020B	Total/NA
Potassium	9.38		0.500		mg/L	1		6020B	Total/NA
Sodium	60.2		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	328		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	328		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	728		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13 — Lab Sample ID: 310-290900-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	74.4		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.352		0.200		mg/L	1		9056A	Total/NA
Sulfate	51.3		1.00		mg/L	1		9056A	Total/NA
Barium	0.0888		0.00200		mg/L	1		6020B	Total/NA
Boron	0.455		0.100		mg/L	1		6020B	Total/NA
Calcium	115		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00176		0.000500		mg/L	1		6020B	Total/NA
Lead	0.00106		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0383		0.0100		mg/L	1		6020B	Total/NA
Magnesium	45.2		0.500		mg/L	1		6020B	Total/NA
Manganese	0.340		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00538		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00608		0.00500		mg/L	1		6020B	Total/NA
Potassium	5.71		0.500		mg/L	1		6020B	Total/NA
Sodium	66.5		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	329		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	329		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	526		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW14 — Lab Sample ID: 310-290900-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	533		100		mg/L	100		9056A	Total/NA
Nitrate as N	0.235		0.200		mg/L	1		9056A	Total/NA
Fluoride	0.664		0.200		mg/L	1		9056A	Total/NA
Sulfate	2750		100		mg/L	100		9056A	Total/NA
Barium	0.0425		0.00200		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW14 (Continued) — Lab Sample ID: 310-290900-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.296		0.100		mg/L	1		6020B	Total/NA
Calcium	233		0.500		mg/L	1		6020B	Total/NA
Magnesium	92.9		12.5		mg/L	25		6020B	Total/NA
Molybdenum	0.0787		0.0500		mg/L	25		6020B	Total/NA
Nickel	0.00583		0.00500		mg/L	1		6020B	Total/NA
Potassium	1730		12.5		mg/L	25		6020B	Total/NA
Sodium	360		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	255		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	255		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6350		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW15 — Lab Sample ID: 310-290900-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.4		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.450		0.200		mg/L	1		9056A	Total/NA
Sulfate	137		20.0		mg/L	20		9056A	Total/NA
Arsenic	0.00291		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0851		0.00200		mg/L	1		6020B	Total/NA
Boron	1.01		0.100		mg/L	1		6020B	Total/NA
Calcium	148		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00215		0.000500		mg/L	1		6020B	Total/NA
Copper	0.00767		0.00500		mg/L	1		6020B	Total/NA
Lead	0.00432		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0621		0.0100		mg/L	1		6020B	Total/NA
Magnesium	65.8		0.500		mg/L	1		6020B	Total/NA
Manganese	0.375		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00512		0.00500		mg/L	1		6020B	Total/NA
Potassium	11.0		0.500		mg/L	1		6020B	Total/NA
Sodium	40.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	367		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	367		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	530		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW16 — Lab Sample ID: 310-290900-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	122		20.0		mg/L	20		9056A	Total/NA
Fluoride	0.272		0.200		mg/L	1		9056A	Total/NA
Sulfate	672		20.0		mg/L	20		9056A	Total/NA
Barium	0.0587		0.00200		mg/L	1		6020B	Total/NA
Boron	0.374		0.100		mg/L	1		6020B	Total/NA
Calcium	186		0.500		mg/L	1		6020B	Total/NA
Magnesium	86.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0432		0.0100		mg/L	1		6020B	Total/NA
Potassium	187		15.0		mg/L	30		6020B	Total/NA
Sodium	74.8		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	290		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1520		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW3L — Lab Sample ID: 310-290900-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.2		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.425		0.200		mg/L	1		9056A	Total/NA
Sulfate	50.0		1.00		mg/L	1		9056A	Total/NA
Barium	0.0715		0.00200		mg/L	1		6020B	Total/NA
Boron	0.202		0.100		mg/L	1		6020B	Total/NA
Calcium	92.0		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00112		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0300		0.0100		mg/L	1		6020B	Total/NA
Magnesium	40.6		0.500		mg/L	1		6020B	Total/NA
Manganese	0.292		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.32		0.500		mg/L	1		6020B	Total/NA
Sodium	21.1		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	346		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	346		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	390		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: UL-3 — Lab Sample ID: 310-290900-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	301		20.0		mg/L	20		9056A	Total/NA
Fluoride	0.209		0.200		mg/L	1		9056A	Total/NA
Sulfate	164		20.0		mg/L	20		9056A	Total/NA
Arsenic	0.00207		0.00200		mg/L	1		6020B	Total/NA
Barium	0.415		0.00200		mg/L	1		6020B	Total/NA
Calcium	333		0.500		mg/L	1		6020B	Total/NA
Chromium	0.00788		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.00375		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0232		0.00500		mg/L	1		6020B	Total/NA
Lead	0.00722		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0171		0.0100		mg/L	1		6020B	Total/NA
Magnesium	7.05		0.500		mg/L	1		6020B	Total/NA
Manganese	0.716		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00986		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.0228		0.00500		mg/L	1		6020B	Total/NA
Potassium	315		2.00		mg/L	4		6020B	Total/NA
Selenium	0.00651		0.00500		mg/L	1		6020B	Total/NA
Sodium	34.5		1.00		mg/L	1		6020B	Total/NA
Thallium	0.00338		0.00100		mg/L	1		6020B	Total/NA
Vanadium	0.00966		0.00500		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	459		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	31.9		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1470		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-3 — Lab Sample ID: 310-290900-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9450		500		mg/L	500		9056A	Total/NA
Sulfate	9620		500		mg/L	500		9056A	Total/NA
Barium	0.0986		0.0400		mg/L	20		6020B	Total/NA
Calcium	54.0		10.0		mg/L	20		6020B	Total/NA
Lithium	0.811		0.200		mg/L	20		6020B	Total/NA
Magnesium	135		10.0		mg/L	20		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample ID: LL-3 (Continued) — Lab Sample ID: 310-290900-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.495		0.200		mg/L	20		6020B	Total/NA
Molybdenum	0.149		0.0400		mg/L	20		6020B	Total/NA
Potassium	15200		200		mg/L	400		6020B	Total/NA
Sodium	1320		20.0		mg/L	20		6020B	Total/NA
Total Phosphorus as P	3.71		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1780		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	469		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1310		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	39300		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-2 — Lab Sample ID: 310-290900-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2460		100		mg/L	100		9056A	Total/NA
Nitrite as N	0.202		0.200		mg/L	1		9056A	Total/NA
Sulfate	1460		100		mg/L	100		9056A	Total/NA
Barium	0.0953		0.00200		mg/L	1		6020B	Total/NA
Calcium	1300		5.00		mg/L	10		6020B	Total/NA
Cobalt	0.00780		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0517		0.0100		mg/L	1		6020B	Total/NA
Magnesium	290		5.00		mg/L	10		6020B	Total/NA
Manganese	43.0		0.100		mg/L	10		6020B	Total/NA
Potassium	928		10.0		mg/L	20		6020B	Total/NA
Sodium	271		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	336		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	336		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6630		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1A — Lab Sample ID: 310-290900-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.77		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.870		0.200		mg/L	1		9056A	Total/NA
Sulfate	22.9		1.00		mg/L	1		9056A	Total/NA
Barium	0.130		0.00200		mg/L	1		6020B	Total/NA
Boron	1.09		0.100		mg/L	1		6020B	Total/NA
Calcium	73.3		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0942		0.0100		mg/L	1		6020B	Total/NA
Magnesium	46.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0212		0.0100		mg/L	1		6020B	Total/NA
Potassium	11.6		0.500		mg/L	1		6020B	Total/NA
Sodium	42.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	376		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	376		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	418		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW18

Date Collected: 09/18/24 08:25
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 17:16	1
Chloride	**1420**		100		mg/L			09/20/24 12:06	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 19:51	1
Fluoride	**1.61**		0.200		mg/L			09/19/24 19:51	1
Nitrite as N	<0.200	F1	0.200		mg/L			09/19/24 19:51	1
Sulfate	**2930**		100		mg/L			09/20/24 12:06	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0113**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:18	1
Antimony	<0.126		0.126		mg/L		09/20/24 09:00	10/02/24 20:26	63
Barium	**0.0160**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:18	1
Beryllium	<0.0630		0.0630		mg/L		09/20/24 09:00	10/02/24 20:26	63
Boron	**0.322**		0.100		mg/L		09/20/24 09:00	10/01/24 18:18	1
Calcium	**2.01**	**F1**	0.500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Chromium	<0.315		0.315		mg/L		09/20/24 09:00	10/02/24 20:26	63
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Lead	**0.000546**		0.000500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Lithium	<0.630		0.630		mg/L		09/20/24 09:00	10/02/24 20:26	63
Magnesium	<0.500	F1	0.500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Manganese	**0.0105**		0.0100		mg/L		09/20/24 09:00	10/01/24 18:18	1
Molybdenum	**0.181**		0.126		mg/L		09/20/24 09:00	10/02/24 20:26	63
Nickel	**0.00752**		0.00500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Potassium	**3920**		31.5		mg/L		09/20/24 09:00	10/02/24 20:26	63
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Silver	**0.0693**	**F1**	0.0630		mg/L		09/20/24 09:00	10/03/24 21:04	63
Sodium	**351**		63.0		mg/L		09/20/24 09:00	10/02/24 20:26	63
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:18	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:18	1
Zinc	<1.26		1.26		mg/L		09/20/24 09:00	10/02/24 20:26	63

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.164**		0.100		mg/L		09/20/24 17:02	09/23/24 12:56	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1310**		5.00		mg/L			09/21/24 01:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**105**		5.00		mg/L			09/21/24 01:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1210**		5.00		mg/L			09/21/24 01:02	1
Total Dissolved Solids (SM 2540C)	**7900**		2500		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW4L

Date Collected: 09/18/24 08:10
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 17:37	1
Chloride	**1470**		100		mg/L			09/20/24 12:41	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 20:28	1
Fluoride	**1.68**		0.200		mg/L			09/19/24 20:28	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 20:28	1
Sulfate	**3030**		100		mg/L			09/20/24 12:41	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00832**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:36	1
Antimony	<0.126		0.126		mg/L		09/20/24 09:00	10/02/24 20:32	63
Barium	**0.0129**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:36	1
Beryllium	<0.0630		0.0630		mg/L		09/20/24 09:00	10/02/24 20:32	63
Boron	**0.317**		0.100		mg/L		09/20/24 09:00	10/01/24 18:36	1
Calcium	**1.73**		0.500		mg/L		09/20/24 09:00	10/01/24 18:36	1
Chromium	<0.315		0.315		mg/L		09/20/24 09:00	10/02/24 20:32	63
Cobalt	<0.0315		0.0315		mg/L		09/20/24 09:00	10/02/24 20:32	63
Copper	<0.315		0.315		mg/L		09/20/24 09:00	10/02/24 20:32	63
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:36	1
Lithium	<0.630		0.630		mg/L		09/20/24 09:00	10/02/24 20:32	63
Magnesium	<0.500		0.500		mg/L		09/20/24 09:00	10/01/24 18:36	1
Manganese	<0.630		0.630		mg/L		09/20/24 09:00	10/03/24 21:15	63
Molybdenum	**0.175**		0.126		mg/L		09/20/24 09:00	10/02/24 20:32	63
Nickel	**0.00646**		0.00500		mg/L		09/20/24 09:00	10/01/24 18:36	1
Potassium	**4000**		31.5		mg/L		09/20/24 09:00	10/02/24 20:32	63
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:36	1
Silver	<0.0630		0.0630		mg/L		09/20/24 09:00	10/03/24 21:15	63
Sodium	**422**		1.00		mg/L		09/20/24 09:00	10/01/24 18:36	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:36	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:36	1
Zinc	<1.26		1.26		mg/L		09/20/24 09:00	10/02/24 20:32	63

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.169**		0.100		mg/L		09/20/24 17:02	09/23/24 12:56	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1340**		5.00		mg/L			09/21/24 01:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**116**		5.00		mg/L			09/21/24 01:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1220**		5.00		mg/L			09/21/24 01:19	1
Total Dissolved Solids (SM 2540C)	**6600**		2500		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW7

Date Collected: 09/18/24 12:20
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 17:58	1
Chloride	**6.29**		1.00		mg/L			09/19/24 16:43	1
Nitrate as N	**4.46**		0.200		mg/L			09/19/24 16:43	1
Fluoride	<0.200		0.200		mg/L			09/19/24 16:43	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 16:43	1
Sulfate	**138**		20.0		mg/L			09/20/24 10:10	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:43	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:43	1
Barium	**0.138**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:38	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 20:43	1
Boron	**0.154**		0.100		mg/L		09/20/24 09:00	10/01/24 18:38	1
Calcium	**84.8**		0.500		mg/L		09/20/24 09:00	10/01/24 18:38	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:43	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/02/24 20:43	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:43	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:38	1
Lithium	**0.0438**		0.0100		mg/L		09/20/24 09:00	10/02/24 20:43	1
Magnesium	**31.3**		0.500		mg/L		09/20/24 09:00	10/01/24 18:38	1
Manganese	**0.0879**		0.0100		mg/L		09/20/24 09:00	10/03/24 21:19	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:43	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:43	1
Potassium	**7.08**		0.500		mg/L		09/20/24 09:00	10/02/24 20:43	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:43	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 21:19	1
Sodium	**22.1**		1.00		mg/L		09/20/24 09:00	10/01/24 18:38	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:38	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:38	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 20:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:57	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**333**		5.00		mg/L			09/21/24 01:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**333**		5.00		mg/L			09/21/24 01:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 01:37	1
Total Dissolved Solids (SM 2540C)	**350**		50.0		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW16L

Date Collected: 09/18/24 09:50
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-4

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 18:19	1
Chloride	**3.11**		1.00		mg/L			09/19/24 15:10	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 15:10	1
Fluoride	**0.306**		0.200		mg/L			09/19/24 15:10	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 15:10	1
Sulfate	**33.8**		1.00		mg/L			09/19/24 15:10	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 18:40	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:46	1
Barium	**0.0753**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:40	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 20:46	1
Boron	**0.244**		0.100		mg/L		09/20/24 09:00	10/01/24 18:40	1
Calcium	**96.4**		0.500		mg/L		09/20/24 09:00	10/01/24 18:40	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:46	1
Cobalt	**0.000596**		0.000500		mg/L		09/20/24 09:00	10/02/24 20:46	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:46	1
Lead	**0.00130**		0.000500		mg/L		09/20/24 09:00	10/01/24 18:40	1
Lithium	**0.0232**		0.0100		mg/L		09/20/24 09:00	10/02/24 20:46	1
Magnesium	**36.5**		0.500		mg/L		09/20/24 09:00	10/01/24 18:40	1
Manganese	**0.100**		0.0100		mg/L		09/20/24 09:00	10/03/24 21:38	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:46	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:40	1
Potassium	**4.23**		0.500		mg/L		09/20/24 09:00	10/02/24 20:46	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:40	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 21:38	1
Sodium	**12.1**		1.00		mg/L		09/20/24 09:00	10/01/24 18:40	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:40	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:40	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 20:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:26	09/23/24 13:18	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**291**		5.00		mg/L			09/21/24 01:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**291**		5.00		mg/L			09/21/24 01:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 01:53	1
Total Dissolved Solids (SM 2540C)	**296**		50.0		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW19

Date Collected: 09/18/24 11:50
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 19:21	1
Chloride	**2.82**		1.00		mg/L			09/19/24 18:27	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 18:27	1
Fluoride	**0.284**		0.200		mg/L			09/19/24 18:27	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 18:27	1
Sulfate	**32.8**		1.00		mg/L			09/19/24 18:27	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 18:43	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:48	1
Barium	**0.119**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:43	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 20:48	1
Boron	**0.242**		0.100		mg/L		09/20/24 09:00	10/01/24 18:43	1
Calcium	**105**		0.500		mg/L		09/20/24 09:00	10/01/24 18:43	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:48	1
Cobalt	**0.00135**		0.000500		mg/L		09/20/24 09:00	10/02/24 20:48	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:48	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:43	1
Lithium	**0.0301**		0.0100		mg/L		09/20/24 09:00	10/02/24 20:48	1
Magnesium	**41.1**		0.500		mg/L		09/20/24 09:00	10/01/24 18:43	1
Manganese	**0.0152**		0.0100		mg/L		09/20/24 09:00	10/03/24 21:41	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:48	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:43	1
Potassium	**3.85**		0.500		mg/L		09/20/24 09:00	10/02/24 20:48	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:43	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 21:41	1
Sodium	**19.0**		1.00		mg/L		09/20/24 09:00	10/01/24 18:43	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:43	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:43	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:54	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**363**		5.00		mg/L			09/21/24 02:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**363**		5.00		mg/L			09/21/24 02:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 02:03	1
Total Dissolved Solids (SM 2540C)	**364**		50.0		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW20

Date Collected: 09/18/24 13:10
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 19:42	1
Chloride	**6.53**		1.00		mg/L			09/19/24 16:08	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 16:08	1
Fluoride	**0.460**		0.200		mg/L			09/19/24 16:08	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 16:08	1
Sulfate	**36.7**		1.00		mg/L			09/19/24 16:08	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 18:45	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:50	1
Barium	**0.0643**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:45	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 20:50	1
Boron	**0.364**		0.100		mg/L		09/20/24 09:00	10/01/24 18:45	1
Calcium	**86.0**		0.500		mg/L		09/20/24 09:00	10/01/24 18:45	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:50	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/02/24 20:50	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:50	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:45	1
Lithium	**0.0319**		0.0100		mg/L		09/20/24 09:00	10/02/24 20:50	1
Magnesium	**37.3**		0.500		mg/L		09/20/24 09:00	10/01/24 18:45	1
Manganese	<0.0100		0.0100		mg/L		09/20/24 09:00	10/03/24 21:45	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:50	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:45	1
Potassium	**5.78**		0.500		mg/L		09/20/24 09:00	10/02/24 20:50	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:45	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 21:45	1
Sodium	**16.8**		1.00		mg/L		09/20/24 09:00	10/01/24 18:45	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:45	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:45	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 20:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.121**		0.100		mg/L		09/20/24 17:02	09/23/24 12:57	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**327**		5.00		mg/L			09/21/24 02:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**327**		5.00		mg/L			09/21/24 02:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 02:13	1
Total Dissolved Solids (SM 2540C)	**338**		50.0		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW21

Date Collected: 09/18/24 11:30
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 20:03	1
Chloride	**1.68**		1.00		mg/L			09/19/24 18:16	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 18:16	1
Fluoride	**0.276**		0.200		mg/L			09/19/24 18:16	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 18:16	1
Sulfate	**27.1**		1.00		mg/L			09/19/24 18:16	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 18:47	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:52	1
Barium	**0.140**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:47	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 20:52	1
Boron	**0.209**		0.100		mg/L		09/20/24 09:00	10/01/24 18:47	1
Calcium	**95.9**		0.500		mg/L		09/20/24 09:00	10/01/24 18:47	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:52	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/02/24 20:52	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:52	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:47	1
Lithium	**0.0265**		0.0100		mg/L		09/20/24 09:00	10/02/24 20:52	1
Magnesium	**35.9**		0.500		mg/L		09/20/24 09:00	10/01/24 18:47	1
Manganese	**0.0178**		0.0100		mg/L		09/20/24 09:00	10/03/24 21:49	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:52	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:47	1
Potassium	**3.16**		0.500		mg/L		09/20/24 09:00	10/02/24 20:52	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:47	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 21:49	1
Sodium	**16.3**		1.00		mg/L		09/20/24 09:00	10/01/24 18:47	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:47	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:47	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:58	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**357**		5.00		mg/L			09/21/24 02:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**357**		5.00		mg/L			09/21/24 02:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 02:22	1
Total Dissolved Solids (SM 2540C)	**346**		50.0		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: UL2

Date Collected: 09/18/24 13:35
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 20:24	1
Chloride	**470**		100		mg/L			09/20/24 09:59	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 15:45	1
Fluoride	**0.230**		0.200		mg/L			09/19/24 15:45	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 15:45	1
Sulfate	**195**		100		mg/L			09/20/24 09:59	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00614**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:49	1
Antimony	<0.0400		0.0400		mg/L		09/20/24 09:00	10/02/24 20:54	20
Barium	**0.447**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:49	1
Beryllium	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 20:54	20
Boron	<0.100		0.100		mg/L		09/20/24 09:00	10/01/24 18:49	1
Calcium	**1170**		10.0		mg/L		09/20/24 09:00	10/02/24 20:54	20
Chromium	<0.100		0.100		mg/L		09/20/24 09:00	10/02/24 20:54	20
Cobalt	<0.0100		0.0100		mg/L		09/20/24 09:00	10/02/24 20:54	20
Copper	<0.100		0.100		mg/L		09/20/24 09:00	10/02/24 20:54	20
Lead	**0.00681**		0.000500		mg/L		09/20/24 09:00	10/01/24 18:49	1
Lithium	**0.336**		0.200		mg/L		09/20/24 09:00	10/02/24 20:54	20
Magnesium	**5.85**		0.500		mg/L		09/20/24 09:00	10/01/24 18:49	1
Manganese	<0.400		0.400		mg/L		09/20/24 09:00	10/03/24 21:52	40
Molybdenum	**0.0641**		0.0400		mg/L		09/20/24 09:00	10/02/24 20:54	20
Nickel	**0.0389**		0.00500		mg/L		09/20/24 09:00	10/01/24 18:49	1
Potassium	**1250**		20.0		mg/L		09/20/24 09:00	10/03/24 21:52	40
Selenium	**0.0572**		0.00500		mg/L		09/20/24 09:00	10/01/24 18:49	1
Silver	<0.0400		0.0400		mg/L		09/20/24 09:00	10/03/24 21:52	40
Sodium	**90.1**		1.00		mg/L		09/20/24 09:00	10/01/24 18:49	1
Thallium	**0.00586**		0.00100		mg/L		09/20/24 09:00	10/01/24 18:49	1
Vanadium	**0.0123**		0.00500		mg/L		09/20/24 09:00	10/01/24 18:49	1
Zinc	<0.400		0.400		mg/L		09/20/24 09:00	10/02/24 20:54	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 13:02	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1280**		5.00		mg/L			09/21/24 02:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 02:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**46.8**		5.00		mg/L			09/21/24 02:32	1
Total Dissolved Solids (SM 2540C)	**3560**		500		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: L Sump

Date Collected: 09/18/24 14:10
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 20:45	1
Chloride	**11600**		1000		mg/L			09/20/24 11:55	1000
Nitrate as N	**3.71**		1.00		mg/L			09/19/24 17:41	5
Fluoride	<1.00		1.00		mg/L			09/19/24 17:41	5
Nitrite as N	<1.00		1.00		mg/L			09/19/24 17:41	5
Sulfate	**7580**		100		mg/L			09/20/24 10:57	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.131**		0.00200		mg/L		09/20/24 09:00	10/01/24 18:51	1
Antimony	<0.100		0.100		mg/L		09/20/24 09:00	10/02/24 20:56	50
Barium	**0.108**		0.100		mg/L		09/20/24 09:00	10/02/24 20:56	50
Beryllium	<0.0500		0.0500		mg/L		09/20/24 09:00	10/02/24 20:56	50
Boron	<5.00		5.00		mg/L		09/20/24 09:00	10/02/24 20:56	50
Calcium	**82.2**		25.0		mg/L		09/20/24 09:00	10/02/24 20:56	50
Chromium	**0.755**		0.250		mg/L		09/20/24 09:00	10/02/24 20:56	50
Cobalt	<0.0250		0.0250		mg/L		09/20/24 09:00	10/02/24 20:56	50
Copper	<0.250		0.250		mg/L		09/20/24 09:00	10/02/24 20:56	50
Lead	<0.0250		0.0250		mg/L		09/20/24 09:00	10/02/24 20:56	50
Lithium	**2.62**		0.500		mg/L		09/20/24 09:00	10/02/24 20:56	50
Magnesium	<125		125		mg/L		09/20/24 09:00	10/03/24 21:56	250
Manganese	<2.50		2.50		mg/L		09/20/24 09:00	10/03/24 21:56	250
Molybdenum	**0.135**		0.100		mg/L		09/20/24 09:00	10/02/24 20:56	50
Nickel	**0.0451**		0.00500		mg/L		09/20/24 09:00	10/01/24 18:51	1
Potassium	**18500**		125		mg/L		09/20/24 09:00	10/03/24 21:56	250
Selenium	**0.784**		0.00500		mg/L		09/20/24 09:00	10/01/24 18:51	1
Silver	<0.250		0.250		mg/L		09/20/24 09:00	10/03/24 21:56	250
Sodium	**1020**		50.0		mg/L		09/20/24 09:00	10/02/24 20:56	50
Thallium	<0.0500		0.0500		mg/L		09/20/24 09:00	10/02/24 20:56	50
Vanadium	<0.250		0.250		mg/L		09/20/24 09:00	10/02/24 20:56	50
Zinc	<1.00		1.00		mg/L		09/20/24 09:00	10/02/24 20:56	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.373**		0.100		mg/L		09/20/24 17:02	09/23/24 13:01	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**2790**		50.0		mg/L			09/24/24 13:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<50.0		50.0		mg/L			09/24/24 13:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1040**		50.0		mg/L			09/24/24 13:00	1
Total Dissolved Solids (SM 2540C)	**38100**		2500		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: LL-1

Date Collected: 09/18/24 13:55
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-10

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 21:06	1
Chloride	**592**		100		mg/L			09/20/24 12:53	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 20:41	1
Fluoride	**0.635**		0.200		mg/L			09/19/24 20:41	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 20:41	1
Sulfate	**426**		100		mg/L			09/20/24 12:53	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 19:02	1
Antimony	<0.0500		0.0500		mg/L		09/20/24 09:00	10/02/24 20:59	25
Barium	**0.126**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:02	1
Beryllium	<0.0250		0.0250		mg/L		09/20/24 09:00	10/02/24 20:59	25
Boron	<0.100		0.100		mg/L		09/20/24 09:00	10/01/24 19:02	1
Calcium	**805**		12.5		mg/L		09/20/24 09:00	10/02/24 20:59	25
Chromium	<0.125		0.125		mg/L		09/20/24 09:00	10/02/24 20:59	25
Cobalt	<0.0125		0.0125		mg/L		09/20/24 09:00	10/02/24 20:59	25
Copper	<0.125		0.125		mg/L		09/20/24 09:00	10/02/24 20:59	25
Lead	**0.0844**		0.000500		mg/L		09/20/24 09:00	10/01/24 19:02	1
Lithium	**0.911**		0.250		mg/L		09/20/24 09:00	10/02/24 20:59	25
Magnesium	<0.500		0.500		mg/L		09/20/24 09:00	10/01/24 19:02	1
Manganese	<0.250		0.250		mg/L		09/20/24 09:00	10/03/24 22:00	25
Molybdenum	<0.0500		0.0500		mg/L		09/20/24 09:00	10/02/24 20:59	25
Nickel	**0.00944**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:02	1
Potassium	**1510**		12.5		mg/L		09/20/24 09:00	10/02/24 20:59	25
Selenium	**0.0136**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:02	1
Silver	<0.0250		0.0250		mg/L		09/20/24 09:00	10/03/24 22:00	25
Sodium	**74.3**		1.00		mg/L		09/20/24 09:00	10/01/24 19:02	1
Thallium	**0.00482**		0.00100		mg/L		09/20/24 09:00	10/01/24 19:02	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:02	1
Zinc	<0.500		0.500		mg/L		09/20/24 09:00	10/02/24 20:59	25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 13:00	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**3310**		50.0		mg/L			09/24/24 13:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<50.0		50.0		mg/L			09/24/24 13:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**94.6**		50.0		mg/L			09/24/24 13:00	1
Total Dissolved Solids (SM 2540C)	**10500**		500		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW1B

Date Collected: 09/18/24 10:58
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-11

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 21:27	1
Chloride	**6.76**		1.00		mg/L			09/19/24 17:52	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 17:52	1
Fluoride	**0.273**		0.200		mg/L			09/19/24 17:52	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 17:52	1
Sulfate	**233**		20.0		mg/L			09/20/24 11:31	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 19:05	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:01	1
Barium	**0.0571**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:05	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 21:01	1
Boron	<0.100		0.100		mg/L		09/20/24 09:00	10/01/24 19:05	1
Calcium	**171**		0.500		mg/L		09/20/24 09:00	10/01/24 19:05	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:01	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/02/24 21:01	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:01	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:05	1
Lithium	<0.0100		0.0100		mg/L		09/20/24 09:00	10/02/24 21:01	1
Magnesium	**56.5**		0.500		mg/L		09/20/24 09:00	10/01/24 19:05	1
Manganese	**0.0155**		0.0100		mg/L		09/20/24 09:00	10/03/24 22:04	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:01	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:05	1
Potassium	**7.12**		0.500		mg/L		09/20/24 09:00	10/02/24 21:01	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:05	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 22:04	1
Sodium	**6.21**		1.00		mg/L		09/20/24 09:00	10/01/24 19:05	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:05	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:05	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 21:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:59	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**404**		5.00		mg/L			09/21/24 04:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**404**		5.00		mg/L			09/21/24 04:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 04:02	1
Total Dissolved Solids (SM 2540C)	**822**		50.0		mg/L			09/19/24 20:47	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW2A

Date Collected: 09/17/24 15:20
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 21:48	1
Chloride	**39.3**		5.00		mg/L			09/19/24 14:24	5
Nitrate as N	<1.00		1.00		mg/L			09/19/24 14:24	5
Fluoride	<1.00		1.00		mg/L			09/19/24 14:24	5
Nitrite as N	<1.00		1.00		mg/L			09/19/24 14:24	5
Sulfate	**180**		5.00		mg/L			09/19/24 14:24	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 19:09	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:14	1
Barium	**0.0545**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:09	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 21:14	1
Boron	<0.100		0.100		mg/L		09/20/24 09:00	10/01/24 19:09	1
Calcium	**148**		0.500		mg/L		09/20/24 09:00	10/01/24 19:09	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:14	1
Cobalt	**0.00176**		0.000500		mg/L		09/20/24 09:00	10/02/24 21:14	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:14	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:09	1
Lithium	**0.0134**		0.0100		mg/L		09/20/24 09:00	10/02/24 21:14	1
Magnesium	**44.6**		0.500		mg/L		09/20/24 09:00	10/01/24 19:09	1
Manganese	**0.181**		0.0100		mg/L		09/20/24 09:00	10/03/24 22:11	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:14	1
Nickel	**0.00880**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:09	1
Potassium	**4.25**		0.500		mg/L		09/20/24 09:00	10/02/24 21:14	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:09	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 22:11	1
Sodium	**22.3**		1.00		mg/L		09/20/24 09:00	10/01/24 19:09	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:09	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:09	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 21:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 13:01	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**307**		5.00		mg/L			09/21/24 04:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**307**		5.00		mg/L			09/21/24 04:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 04:11	1
Total Dissolved Solids (SM 2540C)	**602**		50.0		mg/L			09/19/24 20:37	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW4

Date Collected: 09/18/24 08:40
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-13

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 22:09	1
Chloride	**1120**		100		mg/L			09/20/24 10:22	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 16:54	1
Fluoride	**1.24**		0.200		mg/L			09/19/24 16:54	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 16:54	1
Sulfate	**1870**		100		mg/L			09/20/24 10:22	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0279**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:11	1
Antimony	<0.0900		0.0900		mg/L		09/20/24 09:00	10/02/24 21:16	45
Barium	**0.00927**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:11	1
Beryllium	<0.0450		0.0450		mg/L		09/20/24 09:00	10/02/24 21:16	45
Boron	**0.250**		0.100		mg/L		09/20/24 09:00	10/01/24 19:11	1
Calcium	**2.57**		0.500		mg/L		09/20/24 09:00	10/01/24 19:11	1
Chromium	<0.225		0.225		mg/L		09/20/24 09:00	10/02/24 21:16	45
Cobalt	<0.0225		0.0225		mg/L		09/20/24 09:00	10/02/24 21:16	45
Copper	<0.225		0.225		mg/L		09/20/24 09:00	10/02/24 21:16	45
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:11	1
Lithium	<0.450		0.450		mg/L		09/20/24 09:00	10/02/24 21:16	45
Magnesium	<0.500		0.500		mg/L		09/20/24 09:00	10/01/24 19:11	1
Manganese	<0.450		0.450		mg/L		09/20/24 09:00	10/03/24 22:30	45
Molybdenum	**0.116**		0.0900		mg/L		09/20/24 09:00	10/02/24 21:16	45
Nickel	**0.00834**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:11	1
Potassium	**3190**		22.5		mg/L		09/20/24 09:00	10/02/24 21:16	45
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:11	1
Silver	<0.0450		0.0450		mg/L		09/20/24 09:00	10/03/24 22:30	45
Sodium	**291**		1.00		mg/L		09/20/24 09:00	10/01/24 19:11	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:11	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:11	1
Zinc	<0.900		0.900		mg/L		09/20/24 09:00	10/02/24 21:16	45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.184**		0.100		mg/L		09/20/24 17:02	09/23/24 12:59	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1220**		5.00		mg/L			09/21/24 04:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**64.3**		5.00		mg/L			09/21/24 04:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1150**		5.00		mg/L			09/21/24 04:28	1
Total Dissolved Solids (SM 2540C)	**7380**		250		mg/L			09/23/24 17:41	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW11

Date Collected: 09/18/24 12:35
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-14

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 22:30	1
Chloride	**1210**		100		mg/L			09/20/24 10:33	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 17:18	1
Fluoride	**1.42**		0.200		mg/L			09/19/24 17:18	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 17:18	1
Sulfate	**2290**		100		mg/L			09/20/24 10:33	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0211**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:14	1
Antimony	<0.100		0.100		mg/L		09/20/24 09:00	10/02/24 21:19	50
Barium	**0.0139**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:14	1
Beryllium	<0.0500		0.0500		mg/L		09/20/24 09:00	10/02/24 21:19	50
Boron	**0.278**		0.100		mg/L		09/20/24 09:00	10/01/24 19:14	1
Calcium	**1.71**		0.500		mg/L		09/20/24 09:00	10/01/24 19:14	1
Chromium	<0.250		0.250		mg/L		09/20/24 09:00	10/02/24 21:19	50
Cobalt	<0.0250		0.0250		mg/L		09/20/24 09:00	10/02/24 21:19	50
Copper	<0.250		0.250		mg/L		09/20/24 09:00	10/02/24 21:19	50
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:14	1
Lithium	<0.500		0.500		mg/L		09/20/24 09:00	10/02/24 21:19	50
Magnesium	<0.500		0.500		mg/L		09/20/24 09:00	10/01/24 19:14	1
Manganese	<0.0100	^+	0.0100		mg/L		09/20/24 09:00	10/01/24 19:14	1
Molybdenum	**0.131**		0.100		mg/L		09/20/24 09:00	10/02/24 21:19	50
Nickel	**0.00773**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:14	1
Potassium	**3500**		25.0		mg/L		09/20/24 09:00	10/02/24 21:19	50
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:14	1
Silver	<0.0500		0.0500		mg/L		09/20/24 09:00	10/03/24 22:34	50
Sodium	**347**		1.00		mg/L		09/20/24 09:00	10/01/24 19:14	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:14	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:14	1
Zinc	<1.00		1.00		mg/L		09/20/24 09:00	10/02/24 21:19	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.198**		0.100		mg/L		09/20/24 17:26	09/23/24 13:21	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1280**		5.00		mg/L			09/21/24 04:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**82.1**		5.00		mg/L			09/21/24 04:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1200**		5.00		mg/L			09/21/24 04:44	1
Total Dissolved Solids (SM 2540C)	**8700**		250		mg/L			09/23/24 17:41	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW12

Date Collected: 09/18/24 15:50
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-15

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 00:35	1
Chloride	**81.5**		1.00		mg/L			09/19/24 14:59	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 14:59	1
Fluoride	<0.200		0.200		mg/L			09/19/24 14:59	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 14:59	1
Sulfate	**196**		20.0		mg/L			09/20/24 09:24	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 19:16	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:21	1
Barium	**0.0777**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:16	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 21:21	1
Boron	**0.870**		0.100		mg/L		09/20/24 09:00	10/01/24 19:16	1
Calcium	**130**		0.500		mg/L		09/20/24 09:00	10/01/24 19:16	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:21	1
Cobalt	**0.00289**		0.000500		mg/L		09/20/24 09:00	10/02/24 21:21	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:21	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:16	1
Lithium	**0.0585**		0.0100		mg/L		09/20/24 09:00	10/02/24 21:21	1
Magnesium	**68.5**		0.500		mg/L		09/20/24 09:00	10/01/24 19:16	1
Manganese	**1.36**		0.0100		mg/L		09/20/24 09:00	10/03/24 22:37	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:21	1
Nickel	**0.00819**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:16	1
Potassium	**9.38**		0.500		mg/L		09/20/24 09:00	10/02/24 21:21	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:16	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 22:37	1
Sodium	**60.2**		1.00		mg/L		09/20/24 09:00	10/01/24 19:16	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:16	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:16	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 21:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:26	09/23/24 13:21	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**328**		5.00		mg/L			09/21/24 05:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**328**		5.00		mg/L			09/21/24 05:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 05:01	1
Total Dissolved Solids (SM 2540C)	**728**		50.0		mg/L			09/23/24 17:41	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW13

Date Collected: 09/18/24 14:15
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-16

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 01:38	1
Chloride	**74.4**		1.00		mg/L			09/19/24 15:57	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 15:57	1
Fluoride	**0.352**		0.200		mg/L			09/19/24 15:57	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 15:57	1
Sulfate	**51.3**		1.00		mg/L			09/19/24 15:57	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 19:18	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:23	1
Barium	**0.0888**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:18	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 21:23	1
Boron	**0.455**		0.100		mg/L		09/20/24 09:00	10/01/24 19:18	1
Calcium	**115**		0.500		mg/L		09/20/24 09:00	10/01/24 19:18	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:23	1
Cobalt	**0.00176**		0.000500		mg/L		09/20/24 09:00	10/02/24 21:23	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:23	1
Lead	**0.00106**		0.000500		mg/L		09/20/24 09:00	10/01/24 19:18	1
Lithium	**0.0383**		0.0100		mg/L		09/20/24 09:00	10/02/24 21:23	1
Magnesium	**45.2**		0.500		mg/L		09/20/24 09:00	10/01/24 19:18	1
Manganese	**0.340**		0.0100		mg/L		09/20/24 09:00	10/03/24 22:41	1
Molybdenum	**0.00538**		0.00200		mg/L		09/20/24 09:00	10/02/24 21:23	1
Nickel	**0.00608**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:18	1
Potassium	**5.71**		0.500		mg/L		09/20/24 09:00	10/02/24 21:23	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:18	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 22:41	1
Sodium	**66.5**		1.00		mg/L		09/20/24 09:00	10/01/24 19:18	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:18	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:18	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 21:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:06	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**329**		5.00		mg/L			09/21/24 05:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**329**		5.00		mg/L			09/21/24 05:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 05:11	1
Total Dissolved Solids (SM 2540C)	**526**		50.0		mg/L			09/23/24 17:41	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW14

Date Collected: 09/18/24 07:40
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-17

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 01:59	1
Chloride	**533**		100		mg/L			09/20/24 09:35	100
Nitrate as N	**0.235**		0.200		mg/L			09/19/24 15:22	1
Fluoride	**0.664**		0.200		mg/L			09/19/24 15:22	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 15:22	1
Sulfate	**2750**		100		mg/L			09/20/24 09:35	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 19:20	1
Antimony	<0.0500		0.0500		mg/L		09/20/24 09:00	10/02/24 21:25	25
Barium	**0.0425**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:20	1
Beryllium	<0.0250		0.0250		mg/L		09/20/24 09:00	10/02/24 21:25	25
Boron	**0.296**		0.100		mg/L		09/20/24 09:00	10/01/24 19:20	1
Calcium	**233**		0.500		mg/L		09/20/24 09:00	10/01/24 19:20	1
Chromium	<0.125		0.125		mg/L		09/20/24 09:00	10/02/24 21:25	25
Cobalt	<0.0125		0.0125		mg/L		09/20/24 09:00	10/02/24 21:25	25
Copper	<0.125		0.125		mg/L		09/20/24 09:00	10/02/24 21:25	25
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:20	1
Lithium	<0.250		0.250		mg/L		09/20/24 09:00	10/02/24 21:25	25
Magnesium	**92.9**		12.5		mg/L		09/20/24 09:00	10/03/24 22:45	25
Manganese	<0.250		0.250		mg/L		09/20/24 09:00	10/03/24 22:45	25
Molybdenum	**0.0787**		0.0500		mg/L		09/20/24 09:00	10/02/24 21:25	25
Nickel	**0.00583**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:20	1
Potassium	**1730**		12.5		mg/L		09/20/24 09:00	10/02/24 21:25	25
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:20	1
Silver	<0.0250		0.0250		mg/L		09/20/24 09:00	10/03/24 22:45	25
Sodium	**360**		1.00		mg/L		09/20/24 09:00	10/01/24 19:20	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:20	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:20	1
Zinc	<0.500		0.500		mg/L		09/20/24 09:00	10/02/24 21:25	25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:58	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**255**		5.00		mg/L			09/21/24 05:21	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**255**		5.00		mg/L			09/21/24 05:21	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 05:21	1
Total Dissolved Solids (SM 2540C)	**6350**		250		mg/L			09/23/24 17:41	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW15

Date Collected: 09/17/24 13:50
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-18

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 02:20	1
Chloride	**25.4**		1.00		mg/L			09/19/24 13:38	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 13:38	1
Fluoride	**0.450**		0.200		mg/L			09/19/24 13:38	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 13:38	1
Sulfate	**137**		20.0		mg/L			09/20/24 09:12	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00291**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:22	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:27	1
Barium	**0.0851**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:22	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 21:27	1
Boron	**1.01**		0.100		mg/L		09/20/24 09:00	10/01/24 19:22	1
Calcium	**148**		0.500		mg/L		09/20/24 09:00	10/01/24 19:22	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 21:27	1
Cobalt	**0.00215**		0.000500		mg/L		09/20/24 09:00	10/02/24 21:27	1
Copper	**0.00767**		0.00500		mg/L		09/20/24 09:00	10/02/24 21:27	1
Lead	**0.00432**		0.000500		mg/L		09/20/24 09:00	10/01/24 19:22	1
Lithium	**0.0621**		0.0100		mg/L		09/20/24 09:00	10/02/24 21:27	1
Magnesium	**65.8**		0.500		mg/L		09/20/24 09:00	10/01/24 19:22	1
Manganese	**0.375**		0.0100		mg/L		09/20/24 09:00	10/03/24 22:49	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 21:27	1
Nickel	**0.00512**		0.00500		mg/L		09/20/24 09:00	10/01/24 19:22	1
Potassium	**11.0**		0.500		mg/L		09/20/24 09:00	10/02/24 21:27	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:22	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 22:49	1
Sodium	**40.9**		1.00		mg/L		09/20/24 09:00	10/01/24 19:22	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:22	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:22	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 21:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:58	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**367**		5.00		mg/L			09/21/24 05:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**367**		5.00		mg/L			09/21/24 05:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/21/24 05:30	1
Total Dissolved Solids (SM 2540C)	**530**		50.0		mg/L			09/19/24 20:37	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW16

Date Collected: 09/18/24 09:40
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-19

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 02:41	1
Chloride	**122**		20.0		mg/L			09/20/24 11:43	20
Nitrate as N	<0.200		0.200		mg/L			09/19/24 18:04	1
Fluoride	**0.272**		0.200		mg/L			09/19/24 18:04	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 18:04	1
Sulfate	**672**		20.0		mg/L			09/20/24 11:43	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 19:33	1
Antimony	<0.0600		0.0600		mg/L		09/20/24 09:00	10/02/24 21:30	30
Barium	**0.0587**		0.00200		mg/L		09/20/24 09:00	10/01/24 19:33	1
Beryllium	<0.0300		0.0300		mg/L		09/20/24 09:00	10/02/24 21:30	30
Boron	**0.374**		0.100		mg/L		09/20/24 09:00	10/01/24 19:33	1
Calcium	**186**		0.500		mg/L		09/20/24 09:00	10/01/24 19:33	1
Chromium	<0.150		0.150		mg/L		09/20/24 09:00	10/02/24 21:30	30
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:33	1
Copper	<0.150		0.150		mg/L		09/20/24 09:00	10/02/24 21:30	30
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 19:33	1
Lithium	<0.300		0.300		mg/L		09/20/24 09:00	10/02/24 21:30	30
Magnesium	**86.9**		0.500		mg/L		09/20/24 09:00	10/01/24 19:33	1
Manganese	**0.0432**		0.0100		mg/L		09/20/24 09:00	10/01/24 19:33	1
Molybdenum	<0.0600		0.0600		mg/L		09/20/24 09:00	10/02/24 21:30	30
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:33	1
Potassium	**187**		15.0		mg/L		09/20/24 09:00	10/02/24 21:30	30
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:33	1
Silver	<0.0300		0.0300		mg/L		09/20/24 09:00	10/03/24 22:52	30
Sodium	**74.8**		1.00		mg/L		09/20/24 09:00	10/01/24 19:33	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 19:33	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 19:33	1
Zinc	<0.600		0.600		mg/L		09/20/24 09:00	10/02/24 21:30	30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/25/24 13:18	09/25/24 20:15	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**290**		5.00		mg/L			09/25/24 17:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**290**		5.00		mg/L			09/25/24 17:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/25/24 17:00	1
Total Dissolved Solids (SM 2540C)	**1520**		50.0		mg/L			09/24/24 16:03	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW3L

Date Collected: 09/17/24 15:00
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-20

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 03:43	1
Chloride	**11.2**		1.00		mg/L			09/19/24 13:49	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 13:49	1
Fluoride	**0.425**		0.200		mg/L			09/19/24 13:49	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 13:49	1
Sulfate	**50.0**		1.00		mg/L			09/19/24 13:49	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 19:45	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	09/30/24 14:59	1
Barium	**0.0715**		0.00200		mg/L		09/20/24 09:00	09/23/24 19:45	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:45	1
Boron	**0.202**		0.100		mg/L		09/20/24 09:00	09/23/24 19:45	1
Calcium	**92.0**		0.500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Cobalt	**0.00112**		0.000500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Lithium	**0.0300**		0.0100		mg/L		09/20/24 09:00	09/23/24 19:45	1
Magnesium	**40.6**		0.500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Manganese	**0.292**		0.0100		mg/L		09/20/24 09:00	09/23/24 19:45	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 19:45	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	09/24/24 22:09	1
Potassium	**4.32**		0.500		mg/L		09/20/24 09:00	09/24/24 22:09	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:45	1
Sodium	**21.1**		1.00		mg/L		09/20/24 09:00	09/23/24 19:45	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:45	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:45	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	09/23/24 19:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:53	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**346**		5.00		mg/L			09/25/24 17:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**346**		5.00		mg/L			09/25/24 17:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/25/24 17:19	1
Total Dissolved Solids (SM 2540C)	**390**		50.0		mg/L			09/19/24 20:37	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: UL-3

Date Collected: 09/18/24 13:00
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-21

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 04:04	1
Chloride	**301**		20.0		mg/L			09/20/24 09:47	20
Nitrate as N	<0.200		0.200		mg/L			09/19/24 15:33	1
Fluoride	**0.209**		0.200		mg/L			09/19/24 15:33	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 15:33	1
Sulfate	**164**		20.0		mg/L			09/20/24 09:47	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00207**		0.00200		mg/L		09/20/24 09:00	09/23/24 19:47	1
Antimony	<0.00800		0.00800		mg/L		09/20/24 09:00	09/30/24 15:01	4
Barium	**0.415**		0.00200		mg/L		09/20/24 09:00	09/23/24 19:47	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:47	1
Boron	<0.100		0.100		mg/L		09/20/24 09:00	09/23/24 19:47	1
Calcium	**333**		0.500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Chromium	**0.00788**		0.00500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Cobalt	**0.00375**		0.000500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Copper	**0.0232**		0.00500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Lead	**0.00722**		0.000500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Lithium	**0.0171**		0.0100		mg/L		09/20/24 09:00	09/23/24 19:47	1
Magnesium	**7.05**		0.500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Manganese	**0.716**		0.0100		mg/L		09/20/24 09:00	09/23/24 19:47	1
Molybdenum	**0.00986**		0.00200		mg/L		09/20/24 09:00	09/23/24 19:47	1
Nickel	**0.0228**		0.00500		mg/L		09/20/24 09:00	09/24/24 22:13	1
Potassium	**315**		2.00		mg/L		09/20/24 09:00	09/30/24 15:01	4
Selenium	**0.00651**		0.00500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:47	1
Sodium	**34.5**		1.00		mg/L		09/20/24 09:00	09/23/24 19:47	1
Thallium	**0.00338**		0.00100		mg/L		09/20/24 09:00	09/23/24 19:47	1
Vanadium	**0.00966**		0.00500		mg/L		09/20/24 09:00	09/23/24 19:47	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	09/23/24 19:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:54	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**459**		5.00		mg/L			09/25/24 17:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/25/24 17:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**31.9**		5.00		mg/L			09/25/24 17:29	1
Total Dissolved Solids (SM 2540C)	**1470**		250		mg/L			09/24/24 16:03	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: LL-3

Date Collected: 09/18/24 13:20
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-22

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 04:25	1
Chloride	**9450**		500		mg/L			09/20/24 10:45	500
Nitrate as N	<0.200		0.200		mg/L			09/19/24 17:29	1
Fluoride	<0.200		0.200		mg/L			09/19/24 17:29	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 17:29	1
Sulfate	**9620**		500		mg/L			09/20/24 10:45	500

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0400		0.0400		mg/L		09/20/24 09:00	09/24/24 22:16	20
Antimony	<0.800		0.800		mg/L		09/20/24 09:00	09/30/24 15:03	400
Barium	**0.0986**		0.0400		mg/L		09/20/24 09:00	09/24/24 22:16	20
Beryllium	<0.0200		0.0200		mg/L		09/20/24 09:00	09/24/24 22:16	20
Boron	<2.00		2.00		mg/L		09/20/24 09:00	09/24/24 22:16	20
Calcium	**54.0**		10.0		mg/L		09/20/24 09:00	09/24/24 22:16	20
Chromium	<0.100		0.100		mg/L		09/20/24 09:00	09/24/24 22:16	20
Cobalt	<0.0100		0.0100		mg/L		09/20/24 09:00	09/24/24 22:16	20
Copper	<0.100		0.100		mg/L		09/20/24 09:00	09/24/24 22:16	20
Lead	<0.0100		0.0100		mg/L		09/20/24 09:00	09/24/24 22:16	20
Lithium	**0.811**		0.200		mg/L		09/20/24 09:00	09/24/24 22:16	20
Magnesium	**135**		10.0		mg/L		09/20/24 09:00	09/24/24 22:16	20
Manganese	**0.495**		0.200		mg/L		09/20/24 09:00	09/24/24 22:16	20
Molybdenum	**0.149**		0.0400		mg/L		09/20/24 09:00	09/24/24 22:16	20
Nickel	<0.100		0.100		mg/L		09/20/24 09:00	09/24/24 22:16	20
Potassium	**15200**		200		mg/L		09/20/24 09:00	09/30/24 15:03	400
Selenium	<0.100		0.100		mg/L		09/20/24 09:00	09/24/24 22:16	20
Silver	<0.400		0.400		mg/L		09/20/24 09:00	09/30/24 15:03	400
Sodium	**1320**		20.0		mg/L		09/20/24 09:00	09/24/24 22:16	20
Thallium	<0.0200		0.0200		mg/L		09/20/24 09:00	09/24/24 22:16	20
Vanadium	<0.100		0.100		mg/L		09/20/24 09:00	09/24/24 22:16	20
Zinc	<0.400		0.400		mg/L		09/20/24 09:00	09/24/24 22:16	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**3.71**		0.100		mg/L		09/20/24 17:02	09/23/24 12:53	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1780**		5.00		mg/L			09/25/24 17:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**469**		5.00		mg/L			09/25/24 17:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1310**		5.00		mg/L			09/25/24 17:39	1
Total Dissolved Solids (SM 2540C)	**39300**		2500		mg/L			09/24/24 16:03	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: LL-2

Date Collected: 09/18/24 13:35
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-23

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 04:46	1
Chloride	**2460**		100		mg/L			09/20/24 13:04	100
Nitrate as N	<0.200		0.200		mg/L			09/19/24 20:53	1
Fluoride	<0.200		0.200		mg/L			09/19/24 20:53	1
Nitrite as N	**0.202**		0.200		mg/L			09/19/24 20:53	1
Sulfate	**1460**		100		mg/L			09/20/24 13:04	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 19:52	1
Antimony	<0.0400		0.0400		mg/L		09/20/24 09:00	09/30/24 15:06	20
Barium	**0.0953**		0.00200		mg/L		09/20/24 09:00	09/23/24 19:52	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:52	1
Boron	<0.100		0.100		mg/L		09/20/24 09:00	09/23/24 19:52	1
Calcium	**1300**		5.00		mg/L		09/20/24 09:00	09/24/24 22:20	10
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:52	1
Cobalt	**0.00780**		0.000500		mg/L		09/20/24 09:00	09/23/24 19:52	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:52	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	09/23/24 19:52	1
Lithium	**0.0517**		0.0100		mg/L		09/20/24 09:00	09/23/24 19:52	1
Magnesium	**290**		5.00		mg/L		09/20/24 09:00	09/24/24 22:20	10
Manganese	**43.0**		0.100		mg/L		09/20/24 09:00	09/24/24 22:20	10
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 19:52	1
Nickel	<0.0500		0.0500		mg/L		09/20/24 09:00	09/24/24 22:20	10
Potassium	**928**		10.0		mg/L		09/20/24 09:00	09/30/24 15:06	20
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:52	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:52	1
Sodium	**271**		1.00		mg/L		09/20/24 09:00	09/23/24 19:52	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:52	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:52	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	09/23/24 19:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:54	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**336**		5.00		mg/L			09/25/24 18:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**336**		5.00		mg/L			09/25/24 18:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/25/24 18:01	1
Total Dissolved Solids (SM 2540C)	**6630**		250		mg/L			09/24/24 16:03	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW-1A

Date Collected: 09/18/24 11:05
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-24

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/28/24 05:07	1
Chloride	**2.77**		1.00		mg/L			09/19/24 17:06	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 17:06	1
Fluoride	**0.870**		0.200		mg/L			09/19/24 17:06	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 17:06	1
Sulfate	**22.9**		1.00		mg/L			09/19/24 17:06	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 19:54	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	09/30/24 15:08	1
Barium	**0.130**		0.00200		mg/L		09/20/24 09:00	09/23/24 19:54	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:54	1
Boron	**1.09**		0.100		mg/L		09/20/24 09:00	09/23/24 19:54	1
Calcium	**73.3**		0.500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Lithium	**0.0942**		0.0100		mg/L		09/20/24 09:00	09/23/24 19:54	1
Magnesium	**46.3**		0.500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Manganese	**0.0212**		0.0100		mg/L		09/20/24 09:00	09/23/24 19:54	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 19:54	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	09/24/24 22:24	1
Potassium	**11.6**		0.500		mg/L		09/20/24 09:00	09/24/24 22:24	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:54	1
Sodium	**42.9**		1.00		mg/L		09/20/24 09:00	09/23/24 19:54	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 19:54	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 19:54	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	09/23/24 19:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:55	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**376**		5.00		mg/L			09/25/24 18:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**376**		5.00		mg/L			09/25/24 18:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/25/24 18:11	1
Total Dissolved Solids (SM 2540C)	**418**		50.0		mg/L			09/24/24 16:03	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Qualifiers

HPLC/IC

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

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-433857/8
Matrix: Water
Analysis Batch: 433857

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			09/19/24 14:35	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 14:35	1
Fluoride	<0.200		0.200		mg/L			09/19/24 14:35	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 14:35	1
Sulfate	<1.00		1.00		mg/L			09/19/24 14:35	1

Lab Sample ID: LCS 310-433857/9
Matrix: Water
Analysis Batch: 433857

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.03		mg/L		100	90 - 110
Nitrate as N	2.00	2.081		mg/L		104	90 - 110
Fluoride	2.00	2.002		mg/L		100	90 - 110
Nitrite as N	2.00	2.025		mg/L		101	90 - 110
Sulfate	10.0	10.22		mg/L		102	90 - 110

Lab Sample ID: 310-290900-5 MS
Matrix: Water
Analysis Batch: 433857

Client Sample ID: MW19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2.82		5.00	7.138		mg/L		86	80 - 120
Nitrate as N	<0.200		1.00	1.018		mg/L		102	80 - 120
Fluoride	0.284		1.00	1.263		mg/L		98	80 - 120
Nitrite as N	<0.200		1.00	0.9731		mg/L		97	80 - 120
Sulfate	32.8		5.00	36.92	4	mg/L		83	80 - 120

Lab Sample ID: 310-290900-5 MSD
Matrix: Water
Analysis Batch: 433857

Client Sample ID: MW19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2.82		5.00	7.545		mg/L		95	80 - 120	6	15
Nitrate as N	<0.200		1.00	1.071		mg/L		107	80 - 120	5	15
Fluoride	0.284		1.00	1.352		mg/L		107	80 - 120	7	15
Nitrite as N	<0.200		1.00	1.017		mg/L		102	80 - 120	4	15
Sulfate	32.8		5.00	37.31	4	mg/L		91	80 - 120	1	15

Lab Sample ID: MB 310-433882/3
Matrix: Water
Analysis Batch: 433882

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			09/19/24 19:26	1
Nitrate as N	<0.200		0.200		mg/L			09/19/24 19:26	1
Fluoride	<0.200		0.200		mg/L			09/19/24 19:26	1
Nitrite as N	<0.200		0.200		mg/L			09/19/24 19:26	1
Sulfate	<1.00		1.00		mg/L			09/19/24 19:26	1

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

Lab Sample ID: LCS 310-433882/4
Matrix: Water
Analysis Batch: 433882

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.940		mg/L		99	90 - 110
Nitrate as N	2.00	2.083		mg/L		104	90 - 110
Fluoride	2.00	1.997		mg/L		100	90 - 110
Nitrite as N	2.00	2.024		mg/L		101	90 - 110
Sulfate	10.0	10.20		mg/L		102	90 - 110

Lab Sample ID: 310-290900-1 MS
Matrix: Water
Analysis Batch: 433882

Client Sample ID: MW18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	<0.200		1.00	0.8937		mg/L		89	80 - 120
Fluoride	1.61		1.00	2.473		mg/L		87	80 - 120
Nitrite as N	<0.200	F1	1.00	0.4527	F1	mg/L		38	80 - 120

Lab Sample ID: 310-290900-1 MS
Matrix: Water
Analysis Batch: 433882

Client Sample ID: MW18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1420		500	1876		mg/L		92	80 - 120
Sulfate	2930		500	3340	4	mg/L		82	80 - 120

Lab Sample ID: 310-290900-1 MSD
Matrix: Water
Analysis Batch: 433882

Client Sample ID: MW18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	<0.200		1.00	0.8860		mg/L		89	80 - 120	1	15
Fluoride	1.61		1.00	2.469		mg/L		86	80 - 120	0	15
Nitrite as N	<0.200	F1	1.00	0.4498	F1	mg/L		38	80 - 120	1	15

Lab Sample ID: 310-290900-1 MSD
Matrix: Water
Analysis Batch: 433882

Client Sample ID: MW18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1420		500	1916		mg/L		100	80 - 120	2	15
Sulfate	2930		500	3438	4	mg/L		102	80 - 120	3	15

Lab Sample ID: MB 400-686094/5
Matrix: Water
Analysis Batch: 686094

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 15:10	1

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

Lab Sample ID: LCS 400-686094/6
Matrix: Water
Analysis Batch: 686094

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			8.58	8.842		mg/L		103	90 - 110		

Lab Sample ID: LCSD 400-686094/7
Matrix: Water
Analysis Batch: 686094

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			8.58	8.637		mg/L		101	90 - 110	2	15

Lab Sample ID: MB 400-686100/29
Matrix: Water
Analysis Batch: 686100

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			09/27/24 23:32	1

Lab Sample ID: LCS 400-686100/30
Matrix: Water
Analysis Batch: 686100

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			8.58	8.427		mg/L		98	90 - 110		

Lab Sample ID: LCSD 400-686100/31
Matrix: Water
Analysis Batch: 686100

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			8.58	8.598		mg/L		100	90 - 110	2	15

Lab Sample ID: 310-290900-15 MS
Matrix: Water
Analysis Batch: 686100

Client Sample ID: MW12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate	<1.00		8.58	8.873		mg/L		103	80 - 120		

Lab Sample ID: 310-290900-15 MSD
Matrix: Water
Analysis Batch: 686100

Client Sample ID: MW12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<1.00		8.58	8.390		mg/L		98	80 - 120	6	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-433715/1-A
Matrix: Water
Analysis Batch: 434057

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433715

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 18:46	1
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 18:46	1
Barium	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 18:46	1
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 18:46	1
Boron	<0.100		0.100		mg/L		09/20/24 09:00	09/23/24 18:46	1
Calcium	<0.500		0.500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Lithium	<0.0100		0.0100		mg/L		09/20/24 09:00	09/23/24 18:46	1
Magnesium	<0.500		0.500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Manganese	<0.0100		0.0100		mg/L		09/20/24 09:00	09/23/24 18:46	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	09/23/24 18:46	1
Potassium	<0.500		0.500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 18:46	1
Sodium	<1.00		1.00		mg/L		09/20/24 09:00	09/23/24 18:46	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	09/23/24 18:46	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	09/23/24 18:46	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	09/23/24 18:46	1

Lab Sample ID: MB 310-433715/1-A
Matrix: Water
Analysis Batch: 434205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433715

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	09/24/24 20:41	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	09/24/24 20:41	1

Lab Sample ID: LCS 310-433715/2-A
Matrix: Water
Analysis Batch: 434057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2035		mg/L		102	80 - 120
Antimony	0.200	0.2048		mg/L		102	80 - 120
Barium	0.100	0.09887		mg/L		99	80 - 120
Beryllium	0.100	0.09047		mg/L		90	80 - 120
Boron	0.200	0.1768		mg/L		88	80 - 120
Calcium	2.00	1.793		mg/L		90	80 - 120
Chromium	0.100	0.09813		mg/L		98	80 - 120
Cobalt	0.100	0.09364		mg/L		94	80 - 120
Copper	0.200	0.1948		mg/L		97	80 - 120
Lead	0.200	0.2015		mg/L		101	80 - 120
Lithium	0.200	0.1981		mg/L		99	80 - 120
Magnesium	2.00	1.980		mg/L		99	80 - 120
Manganese	0.100	0.09070		mg/L		91	80 - 120
Molybdenum	0.200	0.1848		mg/L		92	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-433715/2-A
Matrix: Water
Analysis Batch: 434057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	2.00	2.011		mg/L		101	80 - 120
Selenium	0.400	0.3741		mg/L		94	80 - 120
Silver	0.100	0.1198		mg/L		120	80 - 120
Sodium	2.00	2.043		mg/L		102	80 - 120
Thallium	0.100	0.1008		mg/L		101	80 - 120
Vanadium	0.100	0.09759		mg/L		98	80 - 120
Zinc	0.200	0.1783		mg/L		89	80 - 120

Lab Sample ID: LCS 310-433715/2-A
Matrix: Water
Analysis Batch: 434205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.2056		mg/L		103	80 - 120
Nickel	0.200	0.2104		mg/L		105	80 - 120

Lab Sample ID: LCS 310-433715/2-A
Matrix: Water
Analysis Batch: 434787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	0.100	0.1054		mg/L		105	80 - 120

Lab Sample ID: MB 310-433717/1-A
Matrix: Water
Analysis Batch: 434926

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 18:14	1
Barium	<0.00200		0.00200		mg/L		09/20/24 09:00	10/01/24 18:14	1
Boron	<0.100		0.100		mg/L		09/20/24 09:00	10/01/24 18:14	1
Calcium	<0.500		0.500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Cobalt	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Copper	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Lead	<0.000500		0.000500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Magnesium	<0.500		0.500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Manganese	<0.0100		0.0100		mg/L		09/20/24 09:00	10/01/24 18:14	1
Nickel	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Potassium	<0.500		0.500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Selenium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:14	1
Sodium	<1.00		1.00		mg/L		09/20/24 09:00	10/01/24 18:14	1
Thallium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/01/24 18:14	1
Vanadium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/01/24 18:14	1

Lab Sample ID: MB 310-433717/1-A
Matrix: Water
Analysis Batch: 435065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:21	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-433717/1-A
Matrix: Water
Analysis Batch: 435065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00100		0.00100		mg/L		09/20/24 09:00	10/02/24 20:21	1
Chromium	<0.00500		0.00500		mg/L		09/20/24 09:00	10/02/24 20:21	1
Lithium	<0.0100		0.0100		mg/L		09/20/24 09:00	10/02/24 20:21	1
Molybdenum	<0.00200		0.00200		mg/L		09/20/24 09:00	10/02/24 20:21	1
Zinc	<0.0200		0.0200		mg/L		09/20/24 09:00	10/02/24 20:21	1

Lab Sample ID: MB 310-433717/1-A
Matrix: Water
Analysis Batch: 435215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00100		0.00100		mg/L		09/20/24 09:00	10/03/24 20:57	1

Lab Sample ID: LCS 310-433717/2-A
Matrix: Water
Analysis Batch: 434926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2069		mg/L		103	80 - 120
Barium	0.100	0.1036		mg/L		104	80 - 120
Boron	0.200	0.2019		mg/L		101	80 - 120
Calcium	2.00	1.955		mg/L		98	80 - 120
Cobalt	0.100	0.1103		mg/L		110	80 - 120
Copper	0.200	0.2033		mg/L		102	80 - 120
Lead	0.200	0.2217		mg/L		111	80 - 120
Magnesium	2.00	2.028		mg/L		101	80 - 120
Manganese	0.100	0.09770		mg/L		98	80 - 120
Nickel	0.200	0.1983		mg/L		99	80 - 120
Potassium	2.00	2.028		mg/L		101	80 - 120
Selenium	0.400	0.4103		mg/L		103	80 - 120
Sodium	2.00	2.012		mg/L		101	80 - 120
Thallium	0.100	0.09685		mg/L		97	80 - 120
Vanadium	0.100	0.09355		mg/L		94	80 - 120

Lab Sample ID: LCS 310-433717/2-A
Matrix: Water
Analysis Batch: 435065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2289		mg/L		114	80 - 120
Beryllium	0.100	0.09117		mg/L		91	80 - 120
Chromium	0.100	0.09512		mg/L		95	80 - 120
Lithium	0.200	0.1914		mg/L		96	80 - 120
Molybdenum	0.200	0.2052		mg/L		103	80 - 120
Zinc	0.200	0.1885		mg/L		94	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-433717/2-A
Matrix: Water
Analysis Batch: 435215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433717

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Silver			0.100	0.1012		mg/L		101	80 - 120		

Lab Sample ID: 310-290900-1 MS
Matrix: Water
Analysis Batch: 434926

Client Sample ID: MW18
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	0.0113		0.200	0.2293		mg/L		109	75 - 125		
Barium	0.0160		0.100	0.1265		mg/L		110	75 - 125		
Boron	0.322		0.200	0.5544		mg/L		116	75 - 125		
Calcium	2.01	F1	2.00	4.619	F1	mg/L		130	75 - 125		
Lead	0.000546		0.200	0.1808		mg/L		90	75 - 125		
Magnesium	<0.500	F1	2.00	2.922		mg/L		123	75 - 125		
Nickel	0.00752		0.200	0.1840		mg/L		88	75 - 125		
Selenium	<0.00500		0.400	0.3815		mg/L		95	75 - 125		
Thallium	<0.00100		0.100	0.08730		mg/L		87	75 - 125		
Vanadium	<0.00500		0.100	0.1260		mg/L		124	75 - 125		

Lab Sample ID: 310-290900-1 MS
Matrix: Water
Analysis Batch: 435065

Client Sample ID: MW18
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	<0.126		0.200	0.1805		mg/L		90	75 - 125		
Beryllium	<0.0630		0.100	0.08291		mg/L		83	75 - 125		
Chromium	<0.315		0.100	<0.315		mg/L		81	75 - 125		
Lithium	<0.630		0.200	0.6859		mg/L		81	75 - 125		
Molybdenum	0.181		0.200	0.3541		mg/L		87	75 - 125		
Potassium	3920		2.00	3900	4	mg/L		-954	75 - 125		
Sodium	351		2.00	353.4	4	mg/L		108	75 - 125		
Zinc	<1.26		0.200	<1.26		mg/L		NC	75 - 125		

Lab Sample ID: 310-290900-1 MS
Matrix: Water
Analysis Batch: 435215

Client Sample ID: MW18
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Silver	0.0693	F1	0.100	0.09400	F1	mg/L		25	75 - 125		

Lab Sample ID: 310-290900-1 MSD
Matrix: Water
Analysis Batch: 434926

Client Sample ID: MW18
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.0113		0.200	0.2248		mg/L		107	75 - 125	2	20
Barium	0.0160		0.100	0.1260		mg/L		110	75 - 125	0	20
Boron	0.322		0.200	0.5590		mg/L		119	75 - 125	1	20
Calcium	2.01	F1	2.00	4.786	F1	mg/L		139	75 - 125	4	20
Lead	0.000546		0.200	0.1743		mg/L		87	75 - 125	4	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-290900-1 MSD — **Client Sample ID: MW18**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 434926 — **Prep Batch: 433717**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium	<0.500	F1	2.00	3.012	F1	mg/L		127	75 - 125	3	20
Nickel	0.00752		0.200	0.1791		mg/L		86	75 - 125	3	20
Selenium	<0.00500		0.400	0.3760		mg/L		93	75 - 125	1	20
Thallium	<0.00100		0.100	0.08936		mg/L		89	75 - 125	2	20
Vanadium	<0.00500		0.100	0.1237		mg/L		121	75 - 125	2	20

Lab Sample ID: 310-290900-1 MSD — **Client Sample ID: MW18**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 435065 — **Prep Batch: 433717**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.126		0.200	0.1943		mg/L		97	75 - 125	7	20
Beryllium	<0.0630		0.100	0.08398		mg/L		84	75 - 125	1	20
Chromium	<0.315		0.100	<0.315		mg/L		87	75 - 125	7	20
Lithium	<0.630		0.200	0.7462		mg/L		111	75 - 125	8	20
Molybdenum	0.181		0.200	0.3797		mg/L		99	75 - 125	7	20
Potassium	3920		2.00	4328	4	mg/L		20474	75 - 125	10	20
Sodium	351		2.00	387.1	4	mg/L		1792	75 - 125	9	20
Zinc	<1.26		0.200	<1.26		mg/L		NC	75 - 125	NC	20

Lab Sample ID: 310-290900-1 MSD — **Client Sample ID: MW18**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 435215 — **Prep Batch: 433717**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	0.0693	F1	0.100	0.08763	F1	mg/L		18	75 - 125	7	20

Lab Sample ID: 310-290900-11 DU — **Client Sample ID: MW1B**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 434926 — **Prep Batch: 433717**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	<0.00200			<0.00200		mg/L				NC	20
Barium	0.0571			0.05863		mg/L				3	20
Boron	<0.100			<0.100		mg/L				NC	20
Calcium	171			173.9		mg/L				2	20
Lead	<0.000500			<0.000500		mg/L				NC	20
Magnesium	56.5			57.02		mg/L				0.8	20
Nickel	<0.00500			<0.00500		mg/L				NC	20
Selenium	<0.00500			<0.00500		mg/L				NC	20
Sodium	6.21			6.198		mg/L				0.2	20
Thallium	<0.00100			<0.00100		mg/L				NC	20
Vanadium	<0.00500			<0.00500		mg/L				NC	20

Lab Sample ID: 310-290900-11 DU — **Client Sample ID: MW1B**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 435065 — **Prep Batch: 433717**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Antimony	<0.00200			<0.00200		mg/L				NC	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-290900-11 DU
Matrix: Water
Analysis Batch: 435065

Client Sample ID: MW1B
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Beryllium	<0.00100			<0.00100		mg/L				NC	20
Chromium	<0.00500			<0.00500		mg/L				NC	20
Cobalt	<0.000500			<0.000500		mg/L				NC	20
Copper	<0.00500			<0.00500		mg/L				NC	20
Lithium	<0.0100			<0.0100		mg/L				NC	20
Molybdenum	<0.00200			<0.00200		mg/L				NC	20
Potassium	7.12			7.147		mg/L				0.4	20
Zinc	<0.0200			<0.0200		mg/L				NC	20

Lab Sample ID: 310-290900-11 DU
Matrix: Water
Analysis Batch: 435215

Client Sample ID: MW1B
Prep Type: Total/NA
Prep Batch: 433717

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Manganese	0.0155			0.01631		mg/L				5	20
Silver	<0.00100			<0.00100		mg/L				NC	20

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-433865/1-A
Matrix: Water
Analysis Batch: 433964

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/20/24 17:02	09/23/24 12:05	1

Lab Sample ID: LCS 310-433865/2-A
Matrix: Water
Analysis Batch: 433964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433865

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	1.014		mg/L		101	90 - 110		

Lab Sample ID: 310-290900-16 MS
Matrix: Water
Analysis Batch: 433964

Client Sample ID: MW13
Prep Type: Total/NA
Prep Batch: 433865

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P	<0.100		1.00	1.023		mg/L		102	90 - 110		

Lab Sample ID: 310-290900-16 MSD
Matrix: Water
Analysis Batch: 433964

Client Sample ID: MW13
Prep Type: Total/NA
Prep Batch: 433865

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	0.9612		mg/L		96	90 - 110	6	18

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: MB 310-433867/1-A
Matrix: Water
Analysis Batch: 433964

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433867

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/20/24 17:26	09/23/24 13:15	1

Lab Sample ID: LCS 310-433867/2-A
Matrix: Water
Analysis Batch: 433964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433867

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	1.040		mg/L		104	90 - 110

Lab Sample ID: MB 310-434277/1-A
Matrix: Water
Analysis Batch: 434324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/25/24 13:18	09/25/24 20:14	1

Lab Sample ID: LCS 310-434277/2-A
Matrix: Water
Analysis Batch: 434324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434277

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	1.004		mg/L		100	90 - 110

Lab Sample ID: 310-290900-19 MS
Matrix: Water
Analysis Batch: 434324

Client Sample ID: MW16
Prep Type: Total/NA
Prep Batch: 434277

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	<0.100		1.00	1.033		mg/L		103	90 - 110

Lab Sample ID: 310-290900-19 MSD
Matrix: Water
Analysis Batch: 434324

Client Sample ID: MW16
Prep Type: Total/NA
Prep Batch: 434277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	1.027		mg/L		103	90 - 110	1	18

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-433931/25
Matrix: Water
Analysis Batch: 433931

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	909.7		mg/L		91	86 - 111

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 310-434130/1
Matrix: Water
Analysis Batch: 434130

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	993.3		mg/L		99	86 - 111

Lab Sample ID: 310-290900-10 DU
Matrix: Water
Analysis Batch: 434130

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	3310		3358		mg/L		1	16
Bicarbonate Alkalinity as CaCO3	<50.0		<50.0		mg/L		NC	
Carbonate Alkalinity as CaCO3	94.6		94.60		mg/L		0	

Lab Sample ID: LCS 310-434354/2
Matrix: Water
Analysis Batch: 434354

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	916.0		mg/L		92	86 - 111

Lab Sample ID: 310-290900-19 DU
Matrix: Water
Analysis Batch: 434354

Client Sample ID: MW16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	290		297.8		mg/L		3	16
Bicarbonate Alkalinity as CaCO3	290		297.8		mg/L		3	
Carbonate Alkalinity as CaCO3	<5.00		<5.00		mg/L		NC	

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-433742/1
Matrix: Water
Analysis Batch: 433742

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/19/24 20:37	1

Lab Sample ID: LCS 310-433742/2
Matrix: Water
Analysis Batch: 433742

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1028		mg/L		103	88 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 310-433743/1
Matrix: Water
Analysis Batch: 433743

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/19/24 20:47	1

Lab Sample ID: LCS 310-433743/2
Matrix: Water
Analysis Batch: 433743

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1010		mg/L		101	88 - 110

Lab Sample ID: 310-290900-7 DU
Matrix: Water
Analysis Batch: 433743

Client Sample ID: MW21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	346		362.0		mg/L		5	16

Lab Sample ID: MB 310-434029/1
Matrix: Water
Analysis Batch: 434029

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/23/24 17:41	1

Lab Sample ID: LCS 310-434029/2
Matrix: Water
Analysis Batch: 434029

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1046		mg/L		105	88 - 110

Lab Sample ID: 310-290900-13 DU
Matrix: Water
Analysis Batch: 434029

Client Sample ID: MW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	7380		7320		mg/L		0.8	16

Lab Sample ID: MB 310-434170/1
Matrix: Water
Analysis Batch: 434170

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/24/24 16:03	1

Lab Sample ID: LCS 310-434170/2
Matrix: Water
Analysis Batch: 434170

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1038		mg/L		104	88 - 110

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: 310-290900-19 DU
Matrix: Water
Analysis Batch: 434170

Client Sample ID: MW16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1520			1498		mg/L				2	16

HPLC/IC

Analysis Batch: 433857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-3	MW7	Total/NA	Water	9056A	
310-290900-3	MW7	Total/NA	Water	9056A	
310-290900-4	MW16L	Total/NA	Water	9056A	
310-290900-5	MW19	Total/NA	Water	9056A	
310-290900-6	MW20	Total/NA	Water	9056A	
310-290900-7	MW21	Total/NA	Water	9056A	
310-290900-8	UL2	Total/NA	Water	9056A	
310-290900-8	UL2	Total/NA	Water	9056A	
310-290900-9	L Sump	Total/NA	Water	9056A	
310-290900-9	L Sump	Total/NA	Water	9056A	
310-290900-9	L Sump	Total/NA	Water	9056A	
310-290900-11	MW1B	Total/NA	Water	9056A	
310-290900-11	MW1B	Total/NA	Water	9056A	
310-290900-12	MW2A	Total/NA	Water	9056A	
310-290900-13	MW4	Total/NA	Water	9056A	
310-290900-13	MW4	Total/NA	Water	9056A	
310-290900-14	MW11	Total/NA	Water	9056A	
310-290900-14	MW11	Total/NA	Water	9056A	
310-290900-15	MW12	Total/NA	Water	9056A	
310-290900-15	MW12	Total/NA	Water	9056A	
310-290900-16	MW13	Total/NA	Water	9056A	
310-290900-17	MW14	Total/NA	Water	9056A	
310-290900-17	MW14	Total/NA	Water	9056A	
310-290900-18	MW15	Total/NA	Water	9056A	
310-290900-18	MW15	Total/NA	Water	9056A	
310-290900-19	MW16	Total/NA	Water	9056A	
310-290900-19	MW16	Total/NA	Water	9056A	
310-290900-20	MW3L	Total/NA	Water	9056A	
310-290900-21	UL-3	Total/NA	Water	9056A	
310-290900-21	UL-3	Total/NA	Water	9056A	
310-290900-22	LL-3	Total/NA	Water	9056A	
310-290900-22	LL-3	Total/NA	Water	9056A	
310-290900-24	MW-1A	Total/NA	Water	9056A	
MB 310-433857/8	Method Blank	Total/NA	Water	9056A	
LCS 310-433857/9	Lab Control Sample	Total/NA	Water	9056A	
310-290900-5 MS	MW19	Total/NA	Water	9056A	
310-290900-5 MSD	MW19	Total/NA	Water	9056A	

Analysis Batch: 433882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	9056A	
310-290900-1	MW18	Total/NA	Water	9056A	
310-290900-2	MW4L	Total/NA	Water	9056A	
310-290900-2	MW4L	Total/NA	Water	9056A	
310-290900-10	LL-1	Total/NA	Water	9056A	
310-290900-10	LL-1	Total/NA	Water	9056A	
310-290900-23	LL-2	Total/NA	Water	9056A	
310-290900-23	LL-2	Total/NA	Water	9056A	
MB 310-433882/3	Method Blank	Total/NA	Water	9056A	
LCS 310-433882/4	Lab Control Sample	Total/NA	Water	9056A	
310-290900-1 MS	MW18	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 433882 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1 MS	MW18	Total/NA	Water	9056A	
310-290900-1 MSD	MW18	Total/NA	Water	9056A	
310-290900-1 MSD	MW18	Total/NA	Water	9056A	

Analysis Batch: 686094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	9056A	
310-290900-2	MW4L	Total/NA	Water	9056A	
310-290900-3	MW7	Total/NA	Water	9056A	
310-290900-4	MW16L	Total/NA	Water	9056A	
310-290900-5	MW19	Total/NA	Water	9056A	
310-290900-6	MW20	Total/NA	Water	9056A	
310-290900-7	MW21	Total/NA	Water	9056A	
310-290900-8	UL2	Total/NA	Water	9056A	
310-290900-9	L Sump	Total/NA	Water	9056A	
310-290900-10	LL-1	Total/NA	Water	9056A	
310-290900-11	MW1B	Total/NA	Water	9056A	
310-290900-12	MW2A	Total/NA	Water	9056A	
310-290900-13	MW4	Total/NA	Water	9056A	
310-290900-14	MW11	Total/NA	Water	9056A	
MB 400-686094/5	Method Blank	Total/NA	Water	9056A	
LCS 400-686094/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-686094/7	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 686100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-15	MW12	Total/NA	Water	9056A	
310-290900-16	MW13	Total/NA	Water	9056A	
310-290900-17	MW14	Total/NA	Water	9056A	
310-290900-18	MW15	Total/NA	Water	9056A	
310-290900-19	MW16	Total/NA	Water	9056A	
310-290900-20	MW3L	Total/NA	Water	9056A	
310-290900-21	UL-3	Total/NA	Water	9056A	
310-290900-22	LL-3	Total/NA	Water	9056A	
310-290900-23	LL-2	Total/NA	Water	9056A	
310-290900-24	MW-1A	Total/NA	Water	9056A	
MB 400-686100/29	Method Blank	Total/NA	Water	9056A	
LCS 400-686100/30	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-686100/31	Lab Control Sample Dup	Total/NA	Water	9056A	
310-290900-15 MS	MW12	Total/NA	Water	9056A	
310-290900-15 MSD	MW12	Total/NA	Water	9056A	

Metals

Prep Batch: 433715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-20	MW3L	Total/NA	Water	3005A	
310-290900-21	UL-3	Total/NA	Water	3005A	
310-290900-22	LL-3	Total/NA	Water	3005A	
310-290900-23	LL-2	Total/NA	Water	3005A	
310-290900-24	MW-1A	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 433715 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-433715/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-433715/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 433717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	3005A	
310-290900-2	MW4L	Total/NA	Water	3005A	
310-290900-3	MW7	Total/NA	Water	3005A	
310-290900-4	MW16L	Total/NA	Water	3005A	
310-290900-5	MW19	Total/NA	Water	3005A	
310-290900-6	MW20	Total/NA	Water	3005A	
310-290900-7	MW21	Total/NA	Water	3005A	
310-290900-8	UL2	Total/NA	Water	3005A	
310-290900-9	L Sump	Total/NA	Water	3005A	
310-290900-10	LL-1	Total/NA	Water	3005A	
310-290900-11	MW1B	Total/NA	Water	3005A	
310-290900-12	MW2A	Total/NA	Water	3005A	
310-290900-13	MW4	Total/NA	Water	3005A	
310-290900-14	MW11	Total/NA	Water	3005A	
310-290900-15	MW12	Total/NA	Water	3005A	
310-290900-16	MW13	Total/NA	Water	3005A	
310-290900-17	MW14	Total/NA	Water	3005A	
310-290900-18	MW15	Total/NA	Water	3005A	
310-290900-19	MW16	Total/NA	Water	3005A	
MB 310-433717/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-433717/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-290900-1 MS	MW18	Total/NA	Water	3005A	
310-290900-1 MSD	MW18	Total/NA	Water	3005A	
310-290900-11 DU	MW1B	Total/NA	Water	3005A	

Analysis Batch: 434057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-20	MW3L	Total/NA	Water	6020B	433715
310-290900-21	UL-3	Total/NA	Water	6020B	433715
310-290900-23	LL-2	Total/NA	Water	6020B	433715
310-290900-24	MW-1A	Total/NA	Water	6020B	433715
MB 310-433715/1-A	Method Blank	Total/NA	Water	6020B	433715
LCS 310-433715/2-A	Lab Control Sample	Total/NA	Water	6020B	433715

Analysis Batch: 434205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-20	MW3L	Total/NA	Water	6020B	433715
310-290900-21	UL-3	Total/NA	Water	6020B	433715
310-290900-22	LL-3	Total/NA	Water	6020B	433715
310-290900-23	LL-2	Total/NA	Water	6020B	433715
310-290900-24	MW-1A	Total/NA	Water	6020B	433715
MB 310-433715/1-A	Method Blank	Total/NA	Water	6020B	433715
LCS 310-433715/2-A	Lab Control Sample	Total/NA	Water	6020B	433715

Metals

Analysis Batch: 434787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-20	MW3L	Total/NA	Water	6020B	433715
310-290900-21	UL-3	Total/NA	Water	6020B	433715
310-290900-22	LL-3	Total/NA	Water	6020B	433715
310-290900-23	LL-2	Total/NA	Water	6020B	433715
310-290900-24	MW-1A	Total/NA	Water	6020B	433715
LCS 310-433715/2-A	Lab Control Sample	Total/NA	Water	6020B	433715

Analysis Batch: 434926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	6020B	433717
310-290900-2	MW4L	Total/NA	Water	6020B	433717
310-290900-3	MW7	Total/NA	Water	6020B	433717
310-290900-4	MW16L	Total/NA	Water	6020B	433717
310-290900-5	MW19	Total/NA	Water	6020B	433717
310-290900-6	MW20	Total/NA	Water	6020B	433717
310-290900-7	MW21	Total/NA	Water	6020B	433717
310-290900-8	UL2	Total/NA	Water	6020B	433717
310-290900-9	L Sump	Total/NA	Water	6020B	433717
310-290900-10	LL-1	Total/NA	Water	6020B	433717
310-290900-11	MW1B	Total/NA	Water	6020B	433717
310-290900-12	MW2A	Total/NA	Water	6020B	433717
310-290900-13	MW4	Total/NA	Water	6020B	433717
310-290900-14	MW11	Total/NA	Water	6020B	433717
310-290900-15	MW12	Total/NA	Water	6020B	433717
310-290900-16	MW13	Total/NA	Water	6020B	433717
310-290900-17	MW14	Total/NA	Water	6020B	433717
310-290900-18	MW15	Total/NA	Water	6020B	433717
310-290900-19	MW16	Total/NA	Water	6020B	433717
MB 310-433717/1-A	Method Blank	Total/NA	Water	6020B	433717
LCS 310-433717/2-A	Lab Control Sample	Total/NA	Water	6020B	433717
310-290900-1 MS	MW18	Total/NA	Water	6020B	433717
310-290900-1 MSD	MW18	Total/NA	Water	6020B	433717
310-290900-11 DU	MW1B	Total/NA	Water	6020B	433717

Analysis Batch: 435065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	6020B	433717
310-290900-2	MW4L	Total/NA	Water	6020B	433717
310-290900-3	MW7	Total/NA	Water	6020B	433717
310-290900-4	MW16L	Total/NA	Water	6020B	433717
310-290900-5	MW19	Total/NA	Water	6020B	433717
310-290900-6	MW20	Total/NA	Water	6020B	433717
310-290900-7	MW21	Total/NA	Water	6020B	433717
310-290900-8	UL2	Total/NA	Water	6020B	433717
310-290900-9	L Sump	Total/NA	Water	6020B	433717
310-290900-10	LL-1	Total/NA	Water	6020B	433717
310-290900-11	MW1B	Total/NA	Water	6020B	433717
310-290900-12	MW2A	Total/NA	Water	6020B	433717
310-290900-13	MW4	Total/NA	Water	6020B	433717
310-290900-14	MW11	Total/NA	Water	6020B	433717
310-290900-15	MW12	Total/NA	Water	6020B	433717

Metals (Continued)

Analysis Batch: 435065 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-16	MW13	Total/NA	Water	6020B	433717
310-290900-17	MW14	Total/NA	Water	6020B	433717
310-290900-18	MW15	Total/NA	Water	6020B	433717
310-290900-19	MW16	Total/NA	Water	6020B	433717
MB 310-433717/1-A	Method Blank	Total/NA	Water	6020B	433717
LCS 310-433717/2-A	Lab Control Sample	Total/NA	Water	6020B	433717
310-290900-1 MS	MW18	Total/NA	Water	6020B	433717
310-290900-1 MSD	MW18	Total/NA	Water	6020B	433717
310-290900-11 DU	MW1B	Total/NA	Water	6020B	433717

Analysis Batch: 435215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	6020B	433717
310-290900-2	MW4L	Total/NA	Water	6020B	433717
310-290900-3	MW7	Total/NA	Water	6020B	433717
310-290900-4	MW16L	Total/NA	Water	6020B	433717
310-290900-5	MW19	Total/NA	Water	6020B	433717
310-290900-6	MW20	Total/NA	Water	6020B	433717
310-290900-7	MW21	Total/NA	Water	6020B	433717
310-290900-8	UL2	Total/NA	Water	6020B	433717
310-290900-9	L Sump	Total/NA	Water	6020B	433717
310-290900-10	LL-1	Total/NA	Water	6020B	433717
310-290900-11	MW1B	Total/NA	Water	6020B	433717
310-290900-12	MW2A	Total/NA	Water	6020B	433717
310-290900-13	MW4	Total/NA	Water	6020B	433717
310-290900-14	MW11	Total/NA	Water	6020B	433717
310-290900-15	MW12	Total/NA	Water	6020B	433717
310-290900-16	MW13	Total/NA	Water	6020B	433717
310-290900-17	MW14	Total/NA	Water	6020B	433717
310-290900-18	MW15	Total/NA	Water	6020B	433717
310-290900-19	MW16	Total/NA	Water	6020B	433717
MB 310-433717/1-A	Method Blank	Total/NA	Water	6020B	433717
LCS 310-433717/2-A	Lab Control Sample	Total/NA	Water	6020B	433717
310-290900-1 MS	MW18	Total/NA	Water	6020B	433717
310-290900-1 MSD	MW18	Total/NA	Water	6020B	433717
310-290900-11 DU	MW1B	Total/NA	Water	6020B	433717

General Chemistry

Analysis Batch: 433742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-12	MW2A	Total/NA	Water	SM 2540C	
310-290900-18	MW15	Total/NA	Water	SM 2540C	
310-290900-20	MW3L	Total/NA	Water	SM 2540C	
MB 310-433742/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-433742/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 433743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	SM 2540C	
310-290900-2	MW4L	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 433743 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-3	MW7	Total/NA	Water	SM 2540C	
310-290900-4	MW16L	Total/NA	Water	SM 2540C	
310-290900-5	MW19	Total/NA	Water	SM 2540C	
310-290900-6	MW20	Total/NA	Water	SM 2540C	
310-290900-7	MW21	Total/NA	Water	SM 2540C	
310-290900-8	UL2	Total/NA	Water	SM 2540C	
310-290900-9	L Sump	Total/NA	Water	SM 2540C	
310-290900-10	LL-1	Total/NA	Water	SM 2540C	
310-290900-11	MW1B	Total/NA	Water	SM 2540C	
MB 310-433743/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-433743/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-290900-7 DU	MW21	Total/NA	Water	SM 2540C	

Prep Batch: 433865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	365.1	
310-290900-2	MW4L	Total/NA	Water	365.1	
310-290900-3	MW7	Total/NA	Water	365.1	
310-290900-5	MW19	Total/NA	Water	365.1	
310-290900-6	MW20	Total/NA	Water	365.1	
310-290900-7	MW21	Total/NA	Water	365.1	
310-290900-8	UL2	Total/NA	Water	365.1	
310-290900-9	L Sump	Total/NA	Water	365.1	
310-290900-10	LL-1	Total/NA	Water	365.1	
310-290900-11	MW1B	Total/NA	Water	365.1	
310-290900-12	MW2A	Total/NA	Water	365.1	
310-290900-13	MW4	Total/NA	Water	365.1	
310-290900-16	MW13	Total/NA	Water	365.1	
310-290900-17	MW14	Total/NA	Water	365.1	
310-290900-18	MW15	Total/NA	Water	365.1	
310-290900-20	MW3L	Total/NA	Water	365.1	
310-290900-21	UL-3	Total/NA	Water	365.1	
310-290900-22	LL-3	Total/NA	Water	365.1	
310-290900-23	LL-2	Total/NA	Water	365.1	
310-290900-24	MW-1A	Total/NA	Water	365.1	
MB 310-433865/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-433865/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-290900-16 MS	MW13	Total/NA	Water	365.1	
310-290900-16 MSD	MW13	Total/NA	Water	365.1	

Prep Batch: 433867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-4	MW16L	Total/NA	Water	365.1	
310-290900-14	MW11	Total/NA	Water	365.1	
310-290900-15	MW12	Total/NA	Water	365.1	
MB 310-433867/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-433867/2-A	Lab Control Sample	Total/NA	Water	365.1	

Analysis Batch: 433931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 433931 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-2	MW4L	Total/NA	Water	SM 2320B	
310-290900-3	MW7	Total/NA	Water	SM 2320B	
310-290900-4	MW16L	Total/NA	Water	SM 2320B	
310-290900-5	MW19	Total/NA	Water	SM 2320B	
310-290900-6	MW20	Total/NA	Water	SM 2320B	
310-290900-7	MW21	Total/NA	Water	SM 2320B	
310-290900-8	UL2	Total/NA	Water	SM 2320B	
310-290900-11	MW1B	Total/NA	Water	SM 2320B	
310-290900-12	MW2A	Total/NA	Water	SM 2320B	
310-290900-13	MW4	Total/NA	Water	SM 2320B	
310-290900-14	MW11	Total/NA	Water	SM 2320B	
310-290900-15	MW12	Total/NA	Water	SM 2320B	
310-290900-16	MW13	Total/NA	Water	SM 2320B	
310-290900-17	MW14	Total/NA	Water	SM 2320B	
310-290900-18	MW15	Total/NA	Water	SM 2320B	
LCS 310-433931/25	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 433964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-1	MW18	Total/NA	Water	365.1	433865
310-290900-2	MW4L	Total/NA	Water	365.1	433865
310-290900-3	MW7	Total/NA	Water	365.1	433865
310-290900-4	MW16L	Total/NA	Water	365.1	433867
310-290900-5	MW19	Total/NA	Water	365.1	433865
310-290900-6	MW20	Total/NA	Water	365.1	433865
310-290900-7	MW21	Total/NA	Water	365.1	433865
310-290900-8	UL2	Total/NA	Water	365.1	433865
310-290900-9	L Sump	Total/NA	Water	365.1	433865
310-290900-10	LL-1	Total/NA	Water	365.1	433865
310-290900-11	MW1B	Total/NA	Water	365.1	433865
310-290900-12	MW2A	Total/NA	Water	365.1	433865
310-290900-13	MW4	Total/NA	Water	365.1	433865
310-290900-14	MW11	Total/NA	Water	365.1	433867
310-290900-15	MW12	Total/NA	Water	365.1	433867
310-290900-16	MW13	Total/NA	Water	365.1	433865
310-290900-17	MW14	Total/NA	Water	365.1	433865
310-290900-18	MW15	Total/NA	Water	365.1	433865
310-290900-20	MW3L	Total/NA	Water	365.1	433865
310-290900-21	UL-3	Total/NA	Water	365.1	433865
310-290900-22	LL-3	Total/NA	Water	365.1	433865
310-290900-23	LL-2	Total/NA	Water	365.1	433865
310-290900-24	MW-1A	Total/NA	Water	365.1	433865
MB 310-433865/1-A	Method Blank	Total/NA	Water	365.1	433865
MB 310-433867/1-A	Method Blank	Total/NA	Water	365.1	433867
LCS 310-433865/2-A	Lab Control Sample	Total/NA	Water	365.1	433865
LCS 310-433867/2-A	Lab Control Sample	Total/NA	Water	365.1	433867
310-290900-16 MS	MW13	Total/NA	Water	365.1	433865
310-290900-16 MSD	MW13	Total/NA	Water	365.1	433865

General Chemistry

Analysis Batch: 434029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-13	MW4	Total/NA	Water	SM 2540C	
310-290900-14	MW11	Total/NA	Water	SM 2540C	
310-290900-15	MW12	Total/NA	Water	SM 2540C	
310-290900-16	MW13	Total/NA	Water	SM 2540C	
310-290900-17	MW14	Total/NA	Water	SM 2540C	
MB 310-434029/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-434029/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-290900-13 DU	MW4	Total/NA	Water	SM 2540C	

Analysis Batch: 434130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-9	L Sump	Total/NA	Water	SM 2320B	
310-290900-10	LL-1	Total/NA	Water	SM 2320B	
LCS 310-434130/1	Lab Control Sample	Total/NA	Water	SM 2320B	
310-290900-10 DU	LL-1	Total/NA	Water	SM 2320B	

Analysis Batch: 434170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-19	MW16	Total/NA	Water	SM 2540C	
310-290900-21	UL-3	Total/NA	Water	SM 2540C	
310-290900-22	LL-3	Total/NA	Water	SM 2540C	
310-290900-23	LL-2	Total/NA	Water	SM 2540C	
310-290900-24	MW-1A	Total/NA	Water	SM 2540C	
MB 310-434170/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-434170/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-290900-19 DU	MW16	Total/NA	Water	SM 2540C	

Prep Batch: 434277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-19	MW16	Total/NA	Water	365.1	
MB 310-434277/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-434277/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-290900-19 MS	MW16	Total/NA	Water	365.1	
310-290900-19 MSD	MW16	Total/NA	Water	365.1	

Analysis Batch: 434324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-19	MW16	Total/NA	Water	365.1	434277
MB 310-434277/1-A	Method Blank	Total/NA	Water	365.1	434277
LCS 310-434277/2-A	Lab Control Sample	Total/NA	Water	365.1	434277
310-290900-19 MS	MW16	Total/NA	Water	365.1	434277
310-290900-19 MSD	MW16	Total/NA	Water	365.1	434277

Analysis Batch: 434354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290900-19	MW16	Total/NA	Water	SM 2320B	
310-290900-20	MW3L	Total/NA	Water	SM 2320B	
310-290900-21	UL-3	Total/NA	Water	SM 2320B	
310-290900-22	LL-3	Total/NA	Water	SM 2320B	
310-290900-23	LL-2	Total/NA	Water	SM 2320B	
310-290900-24	MW-1A	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 434354 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-434354/2	Lab Control Sample	Total/NA	Water	SM 2320B	
310-290900-19 DU	MW16	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW18

Date Collected: 09/18/24 08:25
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433882	HE7K	EET CF	09/19/24 19:51
Total/NA	Analysis	9056A		100	433882	HE7K	EET CF	09/20/24 12:06
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 17:16
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		63	435215	NFT2	EET CF	10/03/24 21:04
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:18
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		63	435065	NFT2	EET CF	10/02/24 20:26
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:56
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 01:02
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW4L

Date Collected: 09/18/24 08:10
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433882	HE7K	EET CF	09/19/24 20:28
Total/NA	Analysis	9056A		100	433882	HE7K	EET CF	09/20/24 12:41
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 17:37
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		63	435215	NFT2	EET CF	10/03/24 21:15
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:36
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		63	435065	NFT2	EET CF	10/02/24 20:32
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:56
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 01:19
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW7

Date Collected: 09/18/24 12:20
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 16:43
Total/NA	Analysis	9056A		20	433857	HE7K	EET CF	09/20/24 10:10
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 17:58
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 21:19

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW7

Lab Sample ID: 310-290900-3

Date Collected: 09/18/24 12:20

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:38
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 20:43
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:57
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 01:37
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW16L

Lab Sample ID: 310-290900-4

Date Collected: 09/18/24 09:50

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 15:10
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 18:19
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 21:38
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:40
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 20:46
Total/NA	Prep	365.1			433867	T5AC	EET CF	09/20/24 17:26
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 13:18
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 01:53
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW19

Lab Sample ID: 310-290900-5

Date Collected: 09/18/24 11:50

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 18:27
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 19:21
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 21:41
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:43
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 20:48
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:54
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 02:03
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW20

Lab Sample ID: 310-290900-6

Date Collected: 09/18/24 13:10

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 16:08
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 19:42
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 21:45
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:45
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 20:50
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:57
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 02:13
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW21

Lab Sample ID: 310-290900-7

Date Collected: 09/18/24 11:30

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 18:16
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 20:03
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 21:49
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:47
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 20:52
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:58
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 02:22
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: UL2

Lab Sample ID: 310-290900-8

Date Collected: 09/18/24 13:35

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 15:45
Total/NA	Analysis	9056A		100	433857	HE7K	EET CF	09/20/24 09:59
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 20:24
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		40	435215	NFT2	EET CF	10/03/24 21:52
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:49

Client Sample ID: UL2

Lab Sample ID: 310-290900-8

Date Collected: 09/18/24 13:35

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		20	435065	NFT2	EET CF	10/02/24 20:54
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 13:02
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 02:32
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: L Sump

Lab Sample ID: 310-290900-9

Date Collected: 09/18/24 14:10

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	433857	HE7K	EET CF	09/19/24 17:41
Total/NA	Analysis	9056A		100	433857	HE7K	EET CF	09/20/24 10:57
Total/NA	Analysis	9056A		1000	433857	HE7K	EET CF	09/20/24 11:55
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 20:45
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		250	435215	NFT2	EET CF	10/03/24 21:56
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 18:51
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		50	435065	NFT2	EET CF	10/02/24 20:56
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 13:01
Total/NA	Analysis	SM 2320B		1	434130	WZC8	EET CF	09/24/24 13:00
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: LL-1

Lab Sample ID: 310-290900-10

Date Collected: 09/18/24 13:55

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433882	HE7K	EET CF	09/19/24 20:41
Total/NA	Analysis	9056A		100	433882	HE7K	EET CF	09/20/24 12:53
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 21:06
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		25	435215	NFT2	EET CF	10/03/24 22:00
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:02
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		25	435065	NFT2	EET CF	10/02/24 20:59
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 13:00
Total/NA	Analysis	SM 2320B		1	434130	WZC8	EET CF	09/24/24 13:00

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: LL-1

Lab Sample ID: 310-290900-10

Date Collected: 09/18/24 13:55

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW1B

Lab Sample ID: 310-290900-11

Date Collected: 09/18/24 10:58

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 17:52
Total/NA	Analysis	9056A		20	433857	HE7K	EET CF	09/20/24 11:31
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 21:27
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 22:04
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:05
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 21:01
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:59
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 04:02
Total/NA	Analysis	SM 2540C		1	433743	MDU9	EET CF	09/19/24 20:47

Client Sample ID: MW2A

Lab Sample ID: 310-290900-12

Date Collected: 09/17/24 15:20

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	433857	HE7K	EET CF	09/19/24 14:24
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 21:48
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 22:11
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:09
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 21:14
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 13:01
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 04:11
Total/NA	Analysis	SM 2540C		1	433742	MDU9	EET CF	09/19/24 20:37

Client Sample ID: MW4

Lab Sample ID: 310-290900-13

Date Collected: 09/18/24 08:40

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 16:54
Total/NA	Analysis	9056A		100	433857	HE7K	EET CF	09/20/24 10:22
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 22:09
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		45	435215	NFT2	EET CF	10/03/24 22:30
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:11
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		45	435065	NFT2	EET CF	10/02/24 21:16
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:59
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 04:28
Total/NA	Analysis	SM 2540C		1	434029	ENB7	EET CF	09/23/24 17:41

Client Sample ID: MW11

Lab Sample ID: 310-290900-14

Date Collected: 09/18/24 12:35

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 17:18
Total/NA	Analysis	9056A		100	433857	HE7K	EET CF	09/20/24 10:33
Total/NA	Analysis	9056A		1	686094	AMM	EET PEN	09/27/24 22:30
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		50	435215	NFT2	EET CF	10/03/24 22:34
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:14
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		50	435065	NFT2	EET CF	10/02/24 21:19
Total/NA	Prep	365.1			433867	T5AC	EET CF	09/20/24 17:26
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 13:21
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 04:44
Total/NA	Analysis	SM 2540C		1	434029	ENB7	EET CF	09/23/24 17:41

Client Sample ID: MW12

Lab Sample ID: 310-290900-15

Date Collected: 09/18/24 15:50

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 14:59
Total/NA	Analysis	9056A		20	433857	HE7K	EET CF	09/20/24 09:24
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 00:35
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 22:37

Client Sample ID: MW12

Lab Sample ID: 310-290900-15

Date Collected: 09/18/24 15:50

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:16
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 21:21
Total/NA	Prep	365.1			433867	T5AC	EET CF	09/20/24 17:26
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 13:21
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 05:01
Total/NA	Analysis	SM 2540C		1	434029	ENB7	EET CF	09/23/24 17:41

Client Sample ID: MW13

Lab Sample ID: 310-290900-16

Date Collected: 09/18/24 14:15

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 15:57
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 01:38
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 22:41
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:18
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 21:23
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:06
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 05:11
Total/NA	Analysis	SM 2540C		1	434029	ENB7	EET CF	09/23/24 17:41

Client Sample ID: MW14

Lab Sample ID: 310-290900-17

Date Collected: 09/18/24 07:40

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 15:22
Total/NA	Analysis	9056A		100	433857	HE7K	EET CF	09/20/24 09:35
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 01:59
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		25	435215	NFT2	EET CF	10/03/24 22:45
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:20
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		25	435065	NFT2	EET CF	10/02/24 21:25
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:58
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 05:21

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW14

Date Collected: 09/18/24 07:40
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	434029	ENB7	EET CF	09/23/24 17:41

Client Sample ID: MW15

Date Collected: 09/17/24 13:50
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 13:38
Total/NA	Analysis	9056A		20	433857	HE7K	EET CF	09/20/24 09:12
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 02:20
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435215	NFT2	EET CF	10/03/24 22:49
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:22
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	435065	NFT2	EET CF	10/02/24 21:27
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:58
Total/NA	Analysis	SM 2320B		1	433931	T5AC	EET CF	09/21/24 05:30
Total/NA	Analysis	SM 2540C		1	433742	MDU9	EET CF	09/19/24 20:37

Client Sample ID: MW16

Date Collected: 09/18/24 09:40
Date Received: 09/18/24 18:45

Lab Sample ID: 310-290900-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 18:04
Total/NA	Analysis	9056A		20	433857	HE7K	EET CF	09/20/24 11:43
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 02:41
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		30	435215	NFT2	EET CF	10/03/24 22:52
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434926	NFT2	EET CF	10/01/24 19:33
Total/NA	Prep	3005A			433717	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		30	435065	NFT2	EET CF	10/02/24 21:30
Total/NA	Prep	365.1			434277	T5AC	EET CF	09/25/24 13:18
Total/NA	Analysis	365.1		1	434324	ZJX4	EET CF	09/25/24 20:15
Total/NA	Analysis	SM 2320B		1	434354	HE7K	EET CF	09/25/24 17:00
Total/NA	Analysis	SM 2540C		1	434170	MDU9	EET CF	09/24/24 16:03

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Client Sample ID: MW3L

Lab Sample ID: 310-290900-20

Date Collected: 09/17/24 15:00

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 13:49
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 03:43
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434205	NFT2	EET CF	09/24/24 22:09
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434057	NFT2	EET CF	09/23/24 19:45
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434787	NFT2	EET CF	09/30/24 14:59
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:53
Total/NA	Analysis	SM 2320B		1	434354	HE7K	EET CF	09/25/24 17:19
Total/NA	Analysis	SM 2540C		1	433742	MDU9	EET CF	09/19/24 20:37

Client Sample ID: UL-3

Lab Sample ID: 310-290900-21

Date Collected: 09/18/24 13:00

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 15:33
Total/NA	Analysis	9056A		20	433857	HE7K	EET CF	09/20/24 09:47
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 04:04
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434205	NFT2	EET CF	09/24/24 22:13
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434057	NFT2	EET CF	09/23/24 19:47
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		4	434787	NFT2	EET CF	09/30/24 15:01
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:54
Total/NA	Analysis	SM 2320B		1	434354	HE7K	EET CF	09/25/24 17:29
Total/NA	Analysis	SM 2540C		1	434170	MDU9	EET CF	09/24/24 16:03

Client Sample ID: LL-3

Lab Sample ID: 310-290900-22

Date Collected: 09/18/24 13:20

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 17:29
Total/NA	Analysis	9056A		500	433857	HE7K	EET CF	09/20/24 10:45
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 04:25
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		20	434205	NFT2	EET CF	09/24/24 22:16
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		400	434787	NFT2	EET CF	09/30/24 15:03

Client Sample ID: LL-3

Lab Sample ID: 310-290900-22

Date Collected: 09/18/24 13:20

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:53
Total/NA	Analysis	SM 2320B		1	434354	HE7K	EET CF	09/25/24 17:39
Total/NA	Analysis	SM 2540C		1	434170	MDU9	EET CF	09/24/24 16:03

Client Sample ID: LL-2

Lab Sample ID: 310-290900-23

Date Collected: 09/18/24 13:35

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433882	HE7K	EET CF	09/19/24 20:53
Total/NA	Analysis	9056A		100	433882	HE7K	EET CF	09/20/24 13:04
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 04:46
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		10	434205	NFT2	EET CF	09/24/24 22:20
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434057	NFT2	EET CF	09/23/24 19:52
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		20	434787	NFT2	EET CF	09/30/24 15:06
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:54
Total/NA	Analysis	SM 2320B		1	434354	HE7K	EET CF	09/25/24 18:01
Total/NA	Analysis	SM 2540C		1	434170	MDU9	EET CF	09/24/24 16:03

Client Sample ID: MW-1A

Lab Sample ID: 310-290900-24

Date Collected: 09/18/24 11:05

Matrix: Water

Date Received: 09/18/24 18:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	433857	HE7K	EET CF	09/19/24 17:06
Total/NA	Analysis	9056A		1	686100	AMM	EET PEN	09/28/24 05:07
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434205	NFT2	EET CF	09/24/24 22:24
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434057	NFT2	EET CF	09/23/24 19:54
Total/NA	Prep	3005A			433715	F5MW	EET CF	09/20/24 09:00
Total/NA	Analysis	6020B		1	434787	NFT2	EET CF	09/30/24 15:08
Total/NA	Prep	365.1			433865	T5AC	EET CF	09/20/24 17:02
Total/NA	Analysis	365.1		1	433964	ENB7	EET CF	09/23/24 12:55
Total/NA	Analysis	SM 2320B		1	434354	HE7K	EET CF	09/25/24 18:11
Total/NA	Analysis	SM 2540C		1	434170	MDU9	EET CF	09/24/24 16:03

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-290900-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

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

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
SM 2320B		Water	Total Alkalinity as CaCO3 to pH 4.5
SM 2540C		Water	Total Dissolved Solids

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-25
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-25
California	State	2510	06-30-25
Florida	NELAP	E81010	06-30-25
Georgia	State	E81010(FL)	06-30-25
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-25
Louisiana (All)	NELAP	30976	06-30-25
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-25
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-25
Tennessee	State	TN02907	06-30-25
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-25
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	01-09-26
Virginia	NELAP	460166	06-14-25
West Virginia DEP	State	136	03-31-25

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-290900-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET PEN
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

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

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing America

310-290900 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Black Stone

City/State: CITY | STATE | Project

Receipt Information

Date/Time Received: DATE 9/18/24 | TIME 1845 | Received By: XS

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☒ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes.* Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 1 of 4
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other._____ ☐ NONE

Thermometer ID: 2 | Correction Factor (°C): 0

• **Temp Blank Temperature** – *If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature*

Uncorrected Temp (°C): 3.0 | Corrected Temp (°C): 3.0

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

NO MW 9, MW21

3 Additional Samples not on COC
LL-2, MW9, 1A
not ILNT

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State | CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 9/18/24 | TIME 1845 | Received By KB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☒ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 4 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☐ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant. ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: 2 | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.2 | Corrected Temp (°C): 1.2

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used.		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE | Project.

Receipt Information

Date/Time Received: DATE 9/18/24 | TIME 1845 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☒ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 3 of 4
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☐ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: 2 | Correction Factor (°C): 0

• **Temp Blank Temperature** – *If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature*

Uncorrected Temp (°C): 2.7 | Corrected Temp (°C): 2.7

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used.		
Uncorrected Temp (°C):		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State. CITY | STATE | Project.

Receipt Information

Date/Time Received: DATE 9/18/24 | TIME 1845 | Received By XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☒ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 2 of 4
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☐ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: 2 | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 5.1 | Corrected Temp (°C): 5.1

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Lucas Spriggs	Phone:	E-Mail: Conner Calhoun@et.eurofinsus com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 16200 Foster Street	Due Date Requested:			
City: Overland Park	TAT Requested (days):			
State, Zip: KS	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: tsundell@blackstone-env.com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9056A_ORGFM - (MOD) - Bromate (sub 250ml NT to Panacola)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW 18	9/18/24	0825					X	X	X	X	X	X	X		Nitrates- 48hr hold time
MW [redacted]9	9/18/24	1420													
[redacted]W 4L	9/18/24	0810													
MW 7	9/18/24	1220													
MW 16L	9/19/24	950													
MW 19	9/19/24	1150													
MW-20	9/18/24	1310													
MW-21	9/18/24	1130													
[redacted] 4L 2	9/18/24	1335													
[redacted] L Sump	9/18/24	1410													
[redacted] LL-1	9/18/24	1355													

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
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: 9/18/24 1645	Company	Received by:	Date/Time: 9/18/24 1845	Company

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

Cooler Temperature(s) °C and Other Remarks.

Ver: 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Lucas Spriggs	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Lucas Spriggs	Phone: 785 219 7531	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 16200 Foster Street	Due Date Requested:			
City: Overland Park	TAT Requested (days):			
State, Zip: KS	Compliance Project: Δ Yes Δ No			
Phone: 785 2197531	PO #: Purchase Order not required			
Email: tsundell@blackstone-env.com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site: Continental	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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9056A_ORGFM - (MOD) - Bromate (sub 250ml NT to Pensacola)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW1B	9/18/24	1058					X	X	X	X	X	X	X		Nitrates- 48hr hold time
MW 2A	9/17/24	1520													
MW 4	9/18/24	0940													
MW 11	9/18/24	1235													
MW 12	9/18/24	1550													
MW 13	9/18/24	1415													
MW 14	9/19/24	740													
MW 15	9/18/24	1350													
MW 16	9/18/24	1340													
MW 20	9/17/24	1310													
MW 3L	9/17/24	1500													

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

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

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

Special Instructions/QC Requirements.

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: 9/18/24	Date/Time: 9/18/24 1845	Company	Received by:	Date/Time: 9/18/24 1845	Company

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

Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Lucas Spriggs	Phone:	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 16200 Foster Street	Due Date Requested:			
City: Overland Park	TAT Requested (days):			
State, Zip: KS	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: tsundell@blackstone-env com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; 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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9056A_ORGFM - (MOD) - Bromate (sub 250ml NT to Pensacola)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
UL-3	9/18/24	1300					X	X	X	X	X	X	X		Nitrates- 48hr hold time
UL-3	9/18/24	1320													

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
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: 9/18/24 1645	Company	Received by:	Date/Time: 9/18/24 1845	Company

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-76546.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 3
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): State - Iowa		Job #: 310-290900-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/1/2024			Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW18 (310-290900-1)	9/18/24	08:25 Central	G	Water			X	1	
MW4L (310-290900-2)	9/18/24	08:10 Central	G	Water			X	1	
MW7 (310-290900-3)	9/18/24	12:20 Central	G	Water			X	1	
MW16L (310-290900-4)	9/18/24	09:50 Central	G	Water			X	1	
MW19 (310-290900-5)	9/18/24	11:50 Central	G	Water			X	1	
MW20 (310-290900-6)	9/18/24	13:10 Central	G	Water			X	1	
MW21 (310-290900-7)	9/18/24	11:30 Central	G	Water			X	1	
UL2 (310-290900-8)	9/18/24	13:35 Central	G	Water			X	1	
L Sump (310-290900-9)	9/18/24	14:10 Central	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/20/24 9:44	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.9 IR8

Ver: 05/06/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-76546.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 2 of 3
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): State - Iowa		Job #: 310-290900-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/1/2024			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
LL-1 (310-290900-10)	9/18/24	13:55 Central	G	Water			X	1	
MW1B (310-290900-11)	9/18/24	10:58 Central	G	Water			X	1	
MW2A (310-290900-12)	9/17/24	15:20 Central	G	Water			X	1	
MW4 (310-290900-13)	9/18/24	08:40 Central	G	Water			X	1	
MW11 (310-290900-14)	9/18/24	12:35 Central	G	Water			X	1	
MW12 (310-290900-15)	9/18/24	15:50 Central	G	Water			X	1	
MW13 (310-290900-16)	9/18/24	14:15 Central	G	Water			X	1	
MW14 (310-290900-17)	9/18/24	07:40 Central	G	Water			X	1	
MW15 (310-290900-18)	9/17/24	13:50 Central	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 9/20/24 12:25	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/20/24 9:44	Company

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

Ver: 05/06/2024

10/4/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-76546.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 3 of 3
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): State - Iowa		Job #: 310-290900-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/1/2024			Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW16 (310-290900-19)	9/18/24	09:40 Central	G	Water			X	1	
MW3L (310-290900-20)	9/17/24	15:00 Central	G	Water			X	1	
UL-3 (310-290900-21)	9/18/24	13:00 Central	G	Water			X	1	
LL-3 (310-290900-22)	9/18/24	13:20 Central	G	Water			X	1	
LL-2 (310-290900-23)	9/18/24	13:35 Central	G	Water			X	1	
MW-1A (310-290900-24)	9/18/24	11:05 Central	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

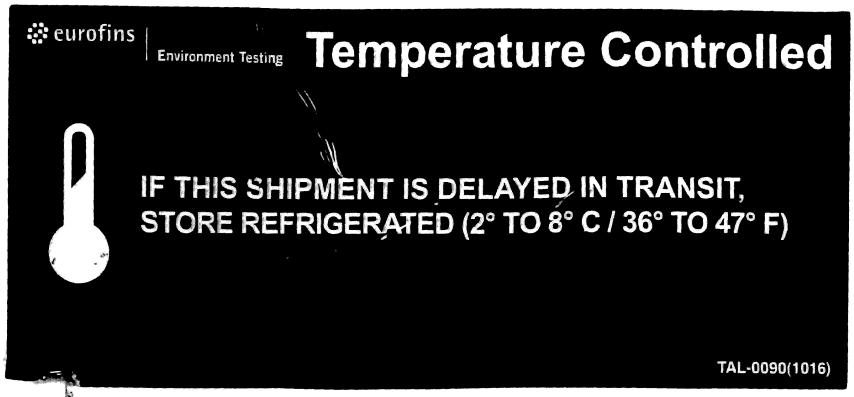
Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	9/19/24 1235				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/20/24 9:44	Company

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

Ver: 05/06/2024



ORIGIN ID:ALOA (319) 277-2401
SAMPLE RECEIVING
EUROFINS TESTAMERICA
3019 VENTURE WAY

CEDAR FALLS, IA 50613
UNITED STATES US

SHIP DATE: 19SEP24
ACTWGT: 31.40 LB
CAD: 0870970/CAFE3808

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHE
3355 MCLEMORE DRIVE

PENSACOLA FL 32514
(850) 474-1001
REF: S310-98002

4.9°C
IR8

585C2/4EF9/C6C4

FedEx Express

J210231122011y

TRK# 0201 7008 5812 7852

FRI - 20 SEP 10:30A
PRIORITY OVERNIGHT

XH PNSA

32514
FL-US BFM

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-290900-1
SDG Number:

Login Number: 290900
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-290900-1
SDG Number:

Login Number: 290900
List Number: 2
Creator: Beecher (Roberts), Alexis J

List Source: Eurofins Pensacola
List Creation: 09/21/24 08:12 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	4.9°C IR8
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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Geosyntec consultants

250 Marquette Avenue South, Suite 590
Minneapolis, Minnesota 55401
PH 612.253.8200
FAX 612.253.8201
www.geosyntec.com

September 17, 2024

Mr. Brett Imsland
Continental Cement, A Summit Materials Company
301 East Front Street
Buffalo, Iowa 52728
Email: Brett.Imsland@continentalcement.com

Subject: **MW-2CR Analytical Results**
Continental Cement, 301 East Front Street, Buffalo, Iowa

Dear Mr. Imsland:

Geosyntec Consultants (Geosyntec) is pleased to present the analytical results from the August 12, 2024 sampling of the stope well MW-2CR conducted at the Continental Cement facility located in Buffalo, Iowa (referred to hereinafter as the "Site").

Continental is a cement manufacturing company located in Buffalo, Iowa. As part of the manufacturing process Cement Kiln Dust (CKD) is generated. This CKD is landfilled on the Continental property under permits issued by the Iowa Department of Natural Resources (IDNR). A portion of the landfill is maintained as a closed landfill under Permit #82-SDP-15-96C. This portion consists of a Closed Cell and a Closed Phase I Cell. The active portion of the monofill is known as the Active Phase II Cell and is under IDNR Permit # 82-SDP-16-97P. Continental must follow the requirements in the permit including activities including sampling of the stope well MW-2CR.

The stope well MW-2CR is associated with a stope intercepting the underground workings of the neighboring Linwood mine. MW-2CR cannot be regularly sampled due to the amount of exhaust air released when the well cap is opened. Geosyntec understands that Continental coordinates with Linwood to sample the well during temporary shutdowns of Linwood kilns or during a period when exhausts are treated through other emission control equipment. Continental notified Geosyntec on August 9, 2024 that Linwood would be shutting down the kilns on August 12, 2024 and requested Geosyntec mobilize to the Site to collect a sample from stope well MW-2CR. Authorization was received in the form of emails dated August 12, 2024.

On August 12, 2024, Geosyntec staff mobilized to the Site to collect a grab liquid sample and sediment sample from stope well MW-2CR. As requested, the depth to water was measured and was noted at 99.62

feet below the top of the stope well casing. Additional field measurements collected with a four-gas meter and water quality meter include the following:

Field Measurements	
Carbon Dioxide	0.0
Hydrogen Sulfide	0.0
Lower Explosive Limit	0%
Oxygen	20.9%
Temperature	100.76 degrees Fahrenheit
Dissolved Oxygen	2.51 milligrams per Liter
Conductivity	22,410 microsiemens
Oxidation Reduction Potential	85.3 millivolts
pH	7.48

A disposable bailer was used to collect the samples. It was lowered into the stope well and a water sample and a sediment sample were collected. The samples were collected in laboratory supplied containers and placed in an ice filled chest for shipment to Eurofins in Cedar Rapids, Iowa. The samples were requested to be analyzed for the following parameters: total aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, lithium, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, thallium, vanadium, and zinc; calcium, chloride, fluoride, sulfate, bicarbonate alkalinity, carbonate alkalinity, nitrate, nitrite, bromate, phosphorus, sodium, and total dissolved solids. A table summarizing the results are included in Attachment A and analytical reports are included as Attachment B.

As presented in Table 1, total metals and general chemistry analytical results for the sediment sample were compared to the Iowa Department of Natural Resources (IDNR) Statewide Standards (SWS) from Chapter 137 of the Iowa Administrative Code, Section 567. With the exception of reported arsenic (4.04 milligrams per kilogram [mg/kg]) and vanadium (1,710 mg/kg), analytes were not reported above respective standards. However, according to the Iowa State-Wide Trace Element Soil Sampling Project by the IDNR dated June 2010, the average concentration of arsenic in soils in Scott County is 6 to 8 mg/kg. Therefore, this arsenic

concentration is below the background concentrations in Iowa. No analytes were reported above associated Toxic Characteristic Leaching Procedure (TCLP) or calculated Synthetic Precipitation Leaching Procedure (SPLP) values.

As presented in Table 2, total metals and general chemistry analytical results for the water sample were compared to IDNR SWS. Six metals (cobalt, lead, molybdenum, nickel, thallium, and vanadium) along with nitrate and nitrite were reported above respective SWS. All other reported compounds were below respective IDNR SWS.

Geosyntec appreciates the opportunity to assist you with this project. Should you have any questions or need additional information, please do not hesitate to contact Krista Brodersen at 309-948-4128.

Sincerely,

Krista Brodersen
Senior Scientist

Garry J. Stanley
Principal

Enclosure: Attachment A – Table 1 – Sediment Analytical Results
Table 2 – Water Analytical Results
Attachment B – Laboratory Analytical Reports

ATTACHMENT A

TABLE 1 - SEDIMENT ANALYTICAL RESULTS		
Analyte	**Regulatory Standard**	**Sample ID**
		8/12/2024
	SWS	**MW2-CR-S**
Metals (mg/kg) and General Chemistry		
Aluminum	--	**2,750**
Antimony	31	<21.5
Arsenic	1.9	**4.04**
Barium	15,000	**28.3**
Beryllium	110	<1.54
Boron	16,000	<154
Bromate		<14.6
Cadmium	70	<1.54
Calcium	--	**341,000**
Chromium	190	**8.44**
Cobalt	23	**6.72**
Copper	3,100	**6.78**
Lead	400	**92**
Lithium	160	**7.7**
Magnesium	--	**23,400**
Manganese	10,000	**622**
Mercury	23	<0.0582 H
Molybdenum	390	**21.8**
Nickel	1,500	**701**
Potassium	--	**3,350**
Selenium	390	<4.61
Silver	370	<1.54
Sodium	--	**2,880**
Thallium	0.78	<1.54
Vanadium	350	**1,710**
Zinc	23,000	**17.2**
Chloride	--	**5,960**
Fluoride	4,700	<68
Nitrate	120,000	**845**
Nitrite	7,800	**82.5**
Sulfate	--	**89,600**
Phosphorus	210,000	**133**
Alkalinity (mg/L)		
Total Alkalinity	--	**5,640**
Bicarbonate Alkalinity	--	**5,640**
Carbonate Alkalinity	--	<1790

Analyte	Regulatory Standard	Sample ID
		8/12/2024
	SWS	MW2-CR-S
pH (standard unit)		
pH	--	**8.0 HF**
TCLP Metals (mg/L)		
	MCC	
Aluminum	**--**	**4.82**
Antimony	**--**	<0.3
Arsenic	5	<0.3
Barium	100	<0.6
Beryllium	--	<0.03
Boron	--	<1.5 F1
Cadmium	1	<0.06
Calcium	--	**1,830**
Chromium	5	<0.06
Cobalt	--	<0.15
Copper	--	<0.3
Lead	5	<0.3
Lithium	--	<0.3
Magnesium	--	**225**
Manganese	--	**4.82**
Molybdenum	--	<0.3
Mercury	0.2	<0.002
Nickel	--	**1.97**
Potassium	--	**37.6**
Selenium	1	<0.3
Silver	5	<.150
Thallium	--	<1.5
Vanadium	--	**6.64**
Zinc	--	<0.6

Analyte	Regulatory Standard	Sample ID
		8/12/2024
	SWS	MW2-CR-S
SPLP Metals (mg/L)		
	10 X MCL	
Aluminum	--	<0.5
Antimony	--	<0.1
Arsenic	0.1	<0.1
Barium	20	<0.2
Beryllium	--	<0.01
Boron	--	<0.5
Cadmium	0.05	<0.02
Calcium	--	**575**
Chromium	1	<0.02
Cobalt	--	<0.05
Copper	--	<0.1
Lead	0.15	<0.1
Lithium	--	<0.1
Magnesium	--	**157**
Manganese	--	**0.139**
Molybdenum	--	**0.217**
Mercury	0.02	<0.002
Nickel	--	<0.05
Potassium	--	**31.6**
Selenium	0.5	<0.1
Silver	1	<0.05
Thallium	--	<0.5
Vanadium	--	**3.57**
Zinc	--	<0.2

Notes:

-Samples were analyzed for Metals by EPA Method 6010D/6020B/7471B, TCLP Metals by EPA Method 6010D/7470A/1311, SPLP Metals by EPA Method 6010D/7470A/1312, Chloride, Fluoride, Nitrate, Nitrite, and Sulfate by EPA Method 9056A, Phosphorus by EPA Method 365.1, Alkalinity by EPA Method SM 2320B, and pH by EPA Method 9045D.

-EPA = Environmental Protection Agency

-mg/kg = milligrams per kilogram

-mg/L = milligrams per Liter

-F1 = MS and/or MSD Recovery exceeds control limits.

-H = Sample was prepped or analyzed beyond the specified holding time.

-HF = Parameter with a holding time of 15 minutes. Sample analyzed outside of hold time.

-- = not applicable

-TCLP = Toxicity Characteristic Leaching Procedure

Analyte	Regulatory Standard	Sample ID	
		8/12/2024	
	SWS	MW2-CR-S	

-SPLP = Synthetic Precipitation Leaching Procedure
-Iowa Department of Natural Resources measures SPLP results against the Maximum Contaminant Level multiplied by 10
-SWS = Iowa Department of Natural Resources Statewide Standard
-MCC = EPA Maximum Concentration of Contaminants for the Toxicity Characteristic
-BOLD = concentration detected above the laboratory detection limit
-BOLD = analyte detected above the regulatory standard

TABLE 2 - LIQUID ANALYTICAL RESULTS		
Analyte	**Regulatory Standard**	**Sample ID**
		8/12/2024
	SWS	**MW2-CR-S**
Metals (mg/L) and General Chemistry		
Aluminum	--	**11.4**
Antimony	0.03	**0.00324**
Arsenic	0.05	**0.038**
Barium	10	**0.122**
Beryllium	0.07	<0.08
Boron	30	<8.0
Bromate	0.05	<20
Cadmium	0.025	<0.016
Calcium	--	**653**
Chromium	0.5	**0.0332**
Cobalt	0.01	**0.0294**
Copper	6.5	**0.0227**
Lead	0.075	**0.317**
Lithium	0.07	<0.8
Magnesium	--	**3,220**
Manganese	4.9	**2.72**
Mercury	0.01	**0.000387**
Molybdenum	0.2	**3.2**
Nickel	0.7	**4.99**
Potassium	--	**630**
Selenium	0.25	**0.0716**
Silver	0.5	**0.00546**
Sodium	--	**764**
Thallium	0.01	**0.0219**
Vanadium	0.18	**33.6**
Zinc	10	**0.0632**
Chloride	--	**1,980**
Fluoride	20	**9.17**
Nitrate	56	**319**
Nitrite	5	**65.1**
Sulfate	--	**12,900**
Phosphorus	--	**0.201**
Total Dissolved Solids	--	**532**

Analyte	Regulatory Standard	Sample ID
		8/12/2024
	SWS	MW2-CR-S
Alkalinity (mg/L)		
Total Alkalinity	--	**513**
Bicarbonate Alkalinity	--	**513**
Carbonate Alkalinity	--	<5.0
pH (standard unit)		
pH	--	**8.0 HF**

Notes:

-Samples were analyzed for Metals by EPA Method 6010D/6020B/7470A, Chloride, Fluoride, Nitrate, Nitrite, and Sulfate by EPA Method 9056A, Phosphorus by EPA Method 365.1, Alkalinity by EPA Method SM 2320B, TDS by EPA Method SM 2540C, and pH by EPA Method 9040C.

-EPA = Environmental Protection Agency

-mg/L = milligrams per Liter

-HF = Parameter with a holding time of 15 minutes. Sample analyzed outside of hold time.

-- = not applicable

-SWS = Iowa Department of Natural Resources Statewide Standard for a Non-Protected Groundwater Source

-BOLD = concentration detected above the laboratory detection limit

-BOLD = analyte detected above the regulatory standard

ATTACHMENT B

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Brodersen
Geosyntec Consultants Inc
250 Marquette Avenue South
Suite 590
Minneapolis, Minnesota 55401

Generated 8/30/2024 10:30:32 AM

JOB DESCRIPTION

Continental
MN2674

JOB NUMBER

310-288059-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

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 North Central, LLC Project Manager.

Authorization

Generated
8/30/2024 10:30:32 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Job ID: 310-288059-1 — Eurofins Cedar Falls

Job Narrative
310-288059-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 8/14/2024 8:15 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 3.2°C.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the abundance of non-target analytes: MW2-CR (310-288059-1). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6010D - SPLP West: TCLP leaching fluid contains a significant amount of sodium which causes all of the related batch QC to fail for this analyte. The sample results for sodium were not reported

MW2-CR-S (310-288059-2)

Method 6010D - TCLP: TCLP leaching fluid contains a significant amount of sodium which causes all of the related batch QC to fail for this analyte. The sample results for sodium were not reported

MW2-CR-S (310-288059-2)

Method 6010D - TCLP: The following sample(s) was diluted due to the presence of an interferent. : MW2-CR-S (310-288059-2). Elevated reporting limits (RLs) are provided.

Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: MW2-CR (310-288059-1). The sample(s) was preserved to the appropriate pH in the laboratory.

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.

Job ID: 310-288059-2 — Eurofins Cedar Falls

Job Narrative
310-288059-2

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 8/14/2024 8:15 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 3.2°C.

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

Sample Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-288059-1	MW2-CR	Water	08/12/24 16:20	08/14/24 08:15
310-288059-2	MW2-CR-S	Solid	08/12/24 16:20	08/14/24 08:15

Detection Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Client Sample ID: MW2-CR — Lab Sample ID: 310-288059-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1980		100		mg/L	100		9056A	Total/NA
Nitrate as N	319		20.0		mg/L	100		9056A	Total/NA
Fluoride	9.17		1.00		mg/L	5		9056A	Total/NA
Nitrite as N	65.1		20.0		mg/L	100		9056A	Total/NA
Sulfate	12900		200		mg/L	200		9056A	Total/NA
Aluminum	11.4		0.0500		mg/L	1		6020B	Total/NA
Antimony	0.00324		0.00200		mg/L	1		6020B	Total/NA
Arsenic	0.0380		0.00200		mg/L	1		6020B	Total/NA
Barium	0.122		0.00200		mg/L	1		6020B	Total/NA
Calcium	653		40.0		mg/L	80		6020B	Total/NA
Chromium	0.0332		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.0294		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0227		0.00500		mg/L	1		6020B	Total/NA
Lead	0.317		0.000500		mg/L	1		6020B	Total/NA
Magnesium	3220		40.0		mg/L	80		6020B	Total/NA
Manganese	2.72		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	3.20		0.160		mg/L	80		6020B	Total/NA
Nickel	4.99		0.400		mg/L	80		6020B	Total/NA
Potassium	630		40.0		mg/L	80		6020B	Total/NA
Selenium	0.0716		0.00500		mg/L	1		6020B	Total/NA
Silver	0.00546		0.00100		mg/L	1		6020B	Total/NA
Sodium	764		80.0		mg/L	80		6020B	Total/NA
Thallium	0.0219		0.00100		mg/L	1		6020B	Total/NA
Vanadium	33.6		0.400		mg/L	80		6020B	Total/NA
Zinc	0.0632		0.0200		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.201		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	513		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	513		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	532		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW2-CR-S — Lab Sample ID: 310-288059-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5960		340		mg/Kg	10	☼	9056A	Soluble
Nitrate as N	845		68.0		mg/Kg	10	☼	9056A	Soluble
Nitrite as N	82.5		68.0		mg/Kg	10	☼	9056A	Soluble
Sulfate	89600		3400		mg/Kg	100	☼	9056A	Soluble
Aluminum	4.82		1.50		mg/L	3		6010D	TCLP
Calcium	1830		15.0		mg/L	3		6010D	TCLP
Magnesium	225		3.00		mg/L	3		6010D	TCLP
Manganese	4.82		0.150		mg/L	3		6010D	TCLP
Nickel	1.97		0.150		mg/L	3		6010D	TCLP
Potassium	37.6		15.0		mg/L	3		6010D	TCLP
Vanadium	6.64		0.150		mg/L	3		6010D	TCLP
Calcium	575		5.00		mg/L	1		6010D	SPLP West
Magnesium	157		1.00		mg/L	1		6010D	SPLP West
Manganese	0.139		0.0500		mg/L	1		6010D	SPLP West
Molybdenum	0.217		0.100		mg/L	1		6010D	SPLP West
Potassium	31.6		5.00		mg/L	1		6010D	SPLP West
Vanadium	3.57		0.0500		mg/L	1		6010D	SPLP West
Aluminum	2750		76.8		mg/Kg	5	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW2-CR-S (Continued)

Lab Sample ID: 310-288059-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.04		3.07		mg/Kg	5	☼	6020B	Total/NA
Barium	28.3		3.07		mg/Kg	5	☼	6020B	Total/NA
Calcium	341000		3230		mg/Kg	35	☼	6020B	Total/NA
Chromium	8.44		4.61		mg/Kg	5	☼	6020B	Total/NA
Cobalt	6.72		1.54		mg/Kg	5	☼	6020B	Total/NA
Copper	6.78		4.61		mg/Kg	5	☼	6020B	Total/NA
Lead	92.0		7.68		mg/Kg	5	☼	6020B	Total/NA
Lithium	7.70		7.68		mg/Kg	5	☼	6020B	Total/NA
Magnesium	23400		461		mg/Kg	5	☼	6020B	Total/NA
Manganese	622		7.68		mg/Kg	5	☼	6020B	Total/NA
Molybdenum	21.8		3.07		mg/Kg	5	☼	6020B	Total/NA
Nickel	701		32.3		mg/Kg	35	☼	6020B	Total/NA
Potassium	3350		461		mg/Kg	5	☼	6020B	Total/NA
Sodium	2880		768		mg/Kg	5	☼	6020B	Total/NA
Vanadium	1710		32.3		mg/Kg	35	☼	6020B	Total/NA
Zinc	17.2		15.4		mg/Kg	5	☼	6020B	Total/NA
Total Phosphorus as P	133		34.0		mg/Kg	1	☼	365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	5640		1790		mg/Kg	1	☼	SM 2320B	Soluble
Bicarbonate Alkalinity as CaCO3	5640		1790		mg/Kg	1	☼	SM 2320B	Soluble

This Detection Summary does not include radiochemical test results.

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Client Sample ID: MW2-CR
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-1
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<20.0		20.0		mg/L			08/17/24 16:48	20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1980**		100		mg/L			08/14/24 13:10	100
Nitrate as N	**319**		20.0		mg/L			08/14/24 13:10	100
Fluoride	**9.17**		1.00		mg/L			08/14/24 15:41	5
Nitrite as N	**65.1**		20.0		mg/L			08/14/24 13:10	100
Sulfate	**12900**		200		mg/L			08/14/24 15:28	200

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**11.4**		0.0500		mg/L		08/15/24 08:45	08/16/24 16:37	1
Antimony	**0.00324**		0.00200		mg/L		08/15/24 08:45	08/16/24 16:37	1
Arsenic	**0.0380**		0.00200		mg/L		08/15/24 08:45	08/16/24 16:37	1
Barium	**0.122**		0.00200		mg/L		08/15/24 08:45	08/16/24 16:37	1
Beryllium	<0.0800		0.0800		mg/L		08/15/24 08:45	08/23/24 14:01	80
Boron	<8.00		8.00		mg/L		08/15/24 08:45	08/22/24 21:19	80
Cadmium	<0.0160		0.0160		mg/L		08/15/24 08:45	08/20/24 22:50	80
Calcium	**653**		40.0		mg/L		08/15/24 08:45	08/20/24 22:50	80
Chromium	**0.0332**		0.00500		mg/L		08/15/24 08:45	08/16/24 16:37	1
Cobalt	**0.0294**		0.000500		mg/L		08/15/24 08:45	08/16/24 16:37	1
Copper	**0.0227**		0.00500		mg/L		08/15/24 08:45	08/16/24 16:37	1
Lead	**0.317**		0.000500		mg/L		08/15/24 08:45	08/16/24 16:37	1
Lithium	<0.800		0.800		mg/L		08/15/24 08:45	08/20/24 22:50	80
Magnesium	**3220**		40.0		mg/L		08/15/24 08:45	08/20/24 22:50	80
Manganese	**2.72**		0.0100		mg/L		08/15/24 08:45	08/16/24 16:37	1
Molybdenum	**3.20**		0.160		mg/L		08/15/24 08:45	08/20/24 22:50	80
Nickel	**4.99**		0.400		mg/L		08/15/24 08:45	08/23/24 14:01	80
Potassium	**630**		40.0		mg/L		08/15/24 08:45	08/20/24 22:50	80
Selenium	**0.0716**		0.00500		mg/L		08/15/24 08:45	08/16/24 16:37	1
Silver	**0.00546**		0.00100		mg/L		08/15/24 08:45	08/16/24 16:37	1
Sodium	**764**		80.0		mg/L		08/15/24 08:45	08/23/24 14:01	80
Thallium	**0.0219**		0.00100		mg/L		08/15/24 08:45	08/16/24 16:37	1
Vanadium	**33.6**		0.400		mg/L		08/15/24 08:45	08/20/24 22:50	80
Zinc	**0.0632**		0.0200		mg/L		08/15/24 08:45	08/16/24 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.201**		0.100		mg/L		08/15/24 08:52	08/15/24 18:13	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**513**		5.00		mg/L			08/15/24 15:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**513**		5.00		mg/L			08/15/24 15:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			08/15/24 15:42	1
Total Dissolved Solids (SM 2540C)	**532**		50.0		mg/L			08/16/24 15:38	1

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**4.82**		1.50		mg/L		08/29/24 09:00	08/29/24 16:06	3
Antimony	<0.300		0.300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Arsenic	<0.300		0.300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Barium	<0.600		0.600		mg/L		08/29/24 09:00	08/29/24 16:06	3
Beryllium	<0.0300		0.0300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Boron	<1.50	F1	1.50		mg/L		08/29/24 09:00	08/29/24 16:06	3
Cadmium	<0.0600		0.0600		mg/L		08/29/24 09:00	08/29/24 16:06	3
Calcium	**1830**		15.0		mg/L		08/29/24 09:00	08/29/24 16:06	3
Chromium	<0.0600		0.0600		mg/L		08/29/24 09:00	08/29/24 16:06	3
Cobalt	<0.150		0.150		mg/L		08/29/24 09:00	08/29/24 16:06	3
Copper	<0.300		0.300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Lead	<0.300		0.300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Lithium	<0.300		0.300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Magnesium	**225**		3.00		mg/L		08/29/24 09:00	08/29/24 16:06	3
Manganese	**4.82**		0.150		mg/L		08/29/24 09:00	08/29/24 16:06	3
Molybdenum	<0.300		0.300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Nickel	**1.97**		0.150		mg/L		08/29/24 09:00	08/29/24 16:06	3
Potassium	**37.6**		15.0		mg/L		08/29/24 09:00	08/29/24 16:06	3
Selenium	<0.300		0.300		mg/L		08/29/24 09:00	08/29/24 16:06	3
Silver	<0.150		0.150		mg/L		08/29/24 09:00	08/29/24 16:06	3
Thallium	<1.50		1.50		mg/L		08/29/24 09:00	08/29/24 16:06	3
Vanadium	**6.64**		0.150		mg/L		08/29/24 09:00	08/29/24 16:06	3
Zinc	<0.600		0.600		mg/L		08/29/24 09:00	08/29/24 16:06	3

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Antimony	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Arsenic	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Barium	<0.200		0.200		mg/L		08/29/24 09:00	08/29/24 15:53	1
Beryllium	<0.0100		0.0100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Boron	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Cadmium	<0.0200		0.0200		mg/L		08/29/24 09:00	08/29/24 15:53	1
Calcium	**575**		5.00		mg/L		08/29/24 09:00	08/29/24 15:53	1
Chromium	<0.0200		0.0200		mg/L		08/29/24 09:00	08/29/24 15:53	1
Cobalt	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Copper	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Lead	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Lithium	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Magnesium	**157**		1.00		mg/L		08/29/24 09:00	08/29/24 15:53	1
Manganese	**0.139**		0.0500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Molybdenum	**0.217**		0.100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Nickel	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Potassium	**31.6**		5.00		mg/L		08/29/24 09:00	08/29/24 15:53	1
Selenium	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:53	1
Silver	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Thallium	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Vanadium	**3.57**		0.0500		mg/L		08/29/24 09:00	08/29/24 15:53	1
Zinc	<0.200		0.200		mg/L		08/29/24 09:00	08/29/24 15:53	1

Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Client Sample ID: MW2-CR-S

Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2

Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	72.9		0.1		%			08/14/24 15:23	1
Percent Solids (EPA Moisture)	27.1		0.1		%			08/14/24 15:23	1

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid
Percent Solids: 27.1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<14.6		14.6		mg/Kg	☼		08/21/24 22:59	1

Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5960**		340		mg/Kg	☼		08/16/24 11:02	10
Nitrate as N	**845**		68.0		mg/Kg	☼		08/16/24 11:02	10
Fluoride	<68.0		68.0		mg/Kg	☼		08/16/24 11:02	10
Nitrite as N	**82.5**		68.0		mg/Kg	☼		08/16/24 11:02	10
Sulfate	**89600**		3400		mg/Kg	☼		08/16/24 11:15	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2750**		76.8		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Antimony	<21.5		21.5		mg/Kg	☼	08/22/24 09:30	08/26/24 15:24	35
Arsenic	**4.04**		3.07		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Barium	**28.3**		3.07		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Beryllium	<1.54		1.54		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Boron	<154		154		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Cadmium	<1.54		1.54		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Calcium	**341000**		3230		mg/Kg	☼	08/22/24 09:30	08/23/24 16:45	35
Chromium	**8.44**		4.61		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Cobalt	**6.72**		1.54		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Copper	**6.78**		4.61		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Lead	**92.0**		7.68		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Lithium	**7.70**		7.68		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Magnesium	**23400**		461		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Manganese	**622**		7.68		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Molybdenum	**21.8**		3.07		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Nickel	**701**		32.3		mg/Kg	☼	08/22/24 09:30	08/23/24 16:45	35
Potassium	**3350**		461		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Selenium	<4.61		4.61		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Silver	<1.54		1.54		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Sodium	**2880**		768		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Thallium	<1.54		1.54		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5
Vanadium	**1710**		32.3		mg/Kg	☼	08/22/24 09:30	08/23/24 16:45	35
Zinc	**17.2**		15.4		mg/Kg	☼	08/22/24 09:30	08/22/24 18:24	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**133**		34.0		mg/Kg	☼	08/15/24 10:36	08/15/24 18:28	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**5640**		1790		mg/Kg	☼		08/15/24 18:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**5640**		1790		mg/Kg	☼		08/15/24 18:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<1790		1790		mg/Kg	☼		08/15/24 18:08	1

Definitions/Glossary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Qualifiers

Metals

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

Glossary

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-681517/7
Matrix: Water
Analysis Batch: 681517

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			08/17/24 15:41	1

Lab Sample ID: LCS 400-681517/8
Matrix: Water
Analysis Batch: 681517

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.58	9.153		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-681517/9
Matrix: Water
Analysis Batch: 681517

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.58	9.024		mg/L		105	90 - 110	1	15

Lab Sample ID: MB 400-681979/1-A
Matrix: Solid
Analysis Batch: 682067

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<3.98		3.98		mg/Kg			08/21/24 21:56	1

Lab Sample ID: LCS 400-681979/2-A
Matrix: Solid
Analysis Batch: 682067

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	85.4	84.63		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 400-681979/3-A
Matrix: Solid
Analysis Batch: 682067

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	85.3	85.30		mg/Kg		100	80 - 120	1	15

Lab Sample ID: 310-288059-2 MS
Matrix: Solid
Analysis Batch: 682067

Client Sample ID: MW2-CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	<14.6		316	288.2		mg/Kg	☼	91	80 - 120

Lab Sample ID: 310-288059-2 MSD
Matrix: Solid
Analysis Batch: 682067

Client Sample ID: MW2-CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<14.6		316	288.3		mg/Kg	☼	91	80 - 120	0	15

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-430845/3
Matrix: Water
Analysis Batch: 430845

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			08/14/24 09:10	1
Nitrate as N	<0.200		0.200		mg/L			08/14/24 09:10	1
Fluoride	<0.200		0.200		mg/L			08/14/24 09:10	1
Nitrite as N	<0.200		0.200		mg/L			08/14/24 09:10	1
Sulfate	<1.00		1.00		mg/L			08/14/24 09:10	1

Lab Sample ID: LCS 310-430845/4
Matrix: Water
Analysis Batch: 430845

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.410		mg/L		94	90 - 110
Nitrate as N	2.00	1.980		mg/L		99	90 - 110
Fluoride	2.00	1.959		mg/L		98	90 - 110
Nitrite as N	2.00	1.996		mg/L		100	90 - 110
Sulfate	10.0	10.01		mg/L		100	90 - 110

Lab Sample ID: MB 310-430448/1-A
Matrix: Solid
Analysis Batch: 430649

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<99.4		99.4		mg/Kg			08/15/24 13:21	10
Nitrate as N	<19.9		19.9		mg/Kg			08/15/24 13:21	10
Fluoride	<19.9		19.9		mg/Kg			08/15/24 13:21	10
Nitrite as N	<19.9		19.9		mg/Kg			08/15/24 13:21	10
Sulfate	<99.4		99.4		mg/Kg			08/15/24 13:21	10

Lab Sample ID: LCS 310-430448/2-A
Matrix: Solid
Analysis Batch: 430649

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	994	904.5		mg/Kg		91	90 - 110
Nitrate as N	199	191.3		mg/Kg		96	90 - 110
Fluoride	199	187.8		mg/Kg		94	90 - 110
Nitrite as N	199	192.1		mg/Kg		97	90 - 110
Sulfate	994	948.2		mg/Kg		95	90 - 110

Method: 6010D - Metals (ICP)

Lab Sample ID: LB 310-431372/1-B
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431644

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Antimony	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Arsenic	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Barium	<0.200		0.200		mg/L		08/29/24 09:00	08/29/24 15:59	1

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

Lab Sample ID: LB 310-431372/1-B
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431644

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0100		0.0100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Boron	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Cadmium	<0.0200		0.0200		mg/L		08/29/24 09:00	08/29/24 15:59	1
Calcium	<5.00		5.00		mg/L		08/29/24 09:00	08/29/24 15:59	1
Chromium	<0.0200		0.0200		mg/L		08/29/24 09:00	08/29/24 15:59	1
Cobalt	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Copper	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Lead	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Lithium	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Magnesium	<1.00		1.00		mg/L		08/29/24 09:00	08/29/24 15:59	1
Manganese	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Molybdenum	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Nickel	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Potassium	<5.00		5.00		mg/L		08/29/24 09:00	08/29/24 15:59	1
Selenium	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:59	1
Silver	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Thallium	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Vanadium	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:59	1
Zinc	<0.200		0.200		mg/L		08/29/24 09:00	08/29/24 15:59	1

Lab Sample ID: LCS 310-431372/2-B
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 431644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	4.00	4.629		mg/L		116	80 - 120
Antimony	4.00	4.194		mg/L		105	80 - 120
Arsenic	4.00	4.255		mg/L		106	80 - 120
Barium	2.00	2.182		mg/L		109	80 - 120
Beryllium	2.00	2.216		mg/L		111	80 - 120
Boron	4.00	4.555		mg/L		114	80 - 120
Cadmium	2.00	1.957		mg/L		98	80 - 120
Calcium	40.0	41.73		mg/L		104	80 - 120
Chromium	2.00	2.078		mg/L		104	80 - 120
Cobalt	2.00	2.036		mg/L		102	80 - 120
Copper	4.00	4.247		mg/L		106	80 - 120
Lead	4.00	3.930		mg/L		98	80 - 120
Lithium	4.00	4.408		mg/L		110	80 - 120
Magnesium	40.0	40.91		mg/L		102	80 - 120
Manganese	2.00	2.146		mg/L		107	80 - 120
Molybdenum	4.00	4.355		mg/L		109	80 - 120
Nickel	4.00	3.972		mg/L		99	80 - 120
Potassium	40.0	44.98		mg/L		112	80 - 120
Selenium	8.00	8.364		mg/L		105	80 - 120
Silver	2.00	2.165		mg/L		108	80 - 120
Thallium	2.00	1.969		mg/L		98	80 - 120
Vanadium	2.00	2.140		mg/L		107	80 - 120
Zinc	4.00	4.188		mg/L		105	80 - 120

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

Lab Sample ID: 310-288059-2 MS
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: MW2-CR-S
Prep Type: TCLP
Prep Batch: 431644

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	4.82		4.00	9.513		mg/L		117	75 - 125
Antimony	<0.300		4.00	4.362		mg/L		109	75 - 125
Arsenic	<0.300		4.00	4.344		mg/L		109	75 - 125
Barium	<0.600		2.00	2.326		mg/L		109	75 - 125
Beryllium	<0.0300		2.00	2.212		mg/L		111	75 - 125
Boron	<1.50	F1	4.00	5.029	F1	mg/L		126	75 - 125
Cadmium	<0.0600		2.00	1.909		mg/L		95	75 - 125
Calcium	1830		40.0	1874	4	mg/L		120	75 - 125
Chromium	<0.0600		2.00	2.054		mg/L		103	75 - 125
Cobalt	<0.150		2.00	1.954		mg/L		98	75 - 125
Copper	<0.300		4.00	4.241		mg/L		106	75 - 125
Lead	<0.300		4.00	3.867		mg/L		97	75 - 125
Lithium	<0.300		4.00	4.583		mg/L		115	75 - 125
Magnesium	225		40.0	265.1	4	mg/L		101	75 - 125
Manganese	4.82		2.00	6.956		mg/L		107	75 - 125
Molybdenum	<0.300		4.00	4.544		mg/L		108	75 - 125
Nickel	1.97		4.00	5.717		mg/L		94	75 - 125
Potassium	37.6		40.0	84.07		mg/L		116	75 - 125
Selenium	<0.300		8.00	8.440		mg/L		105	75 - 125
Silver	<0.150		2.00	1.528		mg/L		76	75 - 125
Thallium	<1.50		2.00	1.852		mg/L		93	75 - 125
Vanadium	6.64		2.00	8.863		mg/L		111	75 - 125
Zinc	<0.600		4.00	4.206		mg/L		105	75 - 125

Lab Sample ID: LB 310-431585/1-B
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: Method Blank
Prep Type: SPLP West
Prep Batch: 431649

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:49	1
Antimony	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Arsenic	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Barium	<0.200		0.200		mg/L		08/29/24 09:00	08/29/24 15:49	1
Beryllium	<0.0100		0.0100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Boron	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:49	1
Cadmium	<0.0200		0.0200		mg/L		08/29/24 09:00	08/29/24 15:49	1
Calcium	<5.00		5.00		mg/L		08/29/24 09:00	08/29/24 15:49	1
Chromium	<0.0200		0.0200		mg/L		08/29/24 09:00	08/29/24 15:49	1
Cobalt	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:49	1
Copper	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Lead	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Lithium	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Magnesium	<1.00		1.00		mg/L		08/29/24 09:00	08/29/24 15:49	1
Manganese	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:49	1
Molybdenum	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Nickel	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:49	1
Potassium	<5.00		5.00		mg/L		08/29/24 09:00	08/29/24 15:49	1
Selenium	<0.100		0.100		mg/L		08/29/24 09:00	08/29/24 15:49	1
Silver	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:49	1

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

Lab Sample ID: LB 310-431585/1-B
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: Method Blank
Prep Type: SPLP West
Prep Batch: 431649

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.500		0.500		mg/L		08/29/24 09:00	08/29/24 15:49	1
Vanadium	<0.0500		0.0500		mg/L		08/29/24 09:00	08/29/24 15:49	1
Zinc	<0.200		0.200		mg/L		08/29/24 09:00	08/29/24 15:49	1

Lab Sample ID: LCS 310-431585/2-B
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: Lab Control Sample
Prep Type: SPLP West
Prep Batch: 431649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	4.00	4.609		mg/L		115	80 - 120
Antimony	4.00	4.179		mg/L		104	80 - 120
Arsenic	4.00	4.248		mg/L		106	80 - 120
Barium	2.00	2.125		mg/L		106	80 - 120
Beryllium	2.00	2.168		mg/L		108	80 - 120
Boron	4.00	4.454		mg/L		111	80 - 120
Cadmium	2.00	1.965		mg/L		98	80 - 120
Calcium	40.0	40.38		mg/L		101	80 - 120
Chromium	2.00	2.037		mg/L		102	80 - 120
Cobalt	2.00	2.002		mg/L		100	80 - 120
Copper	4.00	4.087		mg/L		102	80 - 120
Lead	4.00	3.947		mg/L		99	80 - 120
Lithium	4.00	4.344		mg/L		109	80 - 120
Magnesium	40.0	41.10		mg/L		103	80 - 120
Manganese	2.00	2.098		mg/L		105	80 - 120
Molybdenum	4.00	4.261		mg/L		107	80 - 120
Nickel	4.00	3.952		mg/L		99	80 - 120
Potassium	40.0	44.72		mg/L		112	80 - 120
Selenium	8.00	8.356		mg/L		104	80 - 120
Silver	2.00	2.160		mg/L		108	80 - 120
Thallium	2.00	1.914		mg/L		96	80 - 120
Vanadium	2.00	2.088		mg/L		104	80 - 120
Zinc	4.00	4.099		mg/L		102	80 - 120

Lab Sample ID: 310-288059-2 MS
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: MW2-CR-S
Prep Type: SPLP West
Prep Batch: 431649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	<0.500		4.00	4.792		mg/L		120	75 - 125
Antimony	<0.100		4.00	4.426		mg/L		111	75 - 125
Arsenic	<0.100		4.00	4.422		mg/L		111	75 - 125
Barium	<0.200		2.00	2.204		mg/L		110	75 - 125
Beryllium	<0.0100		2.00	2.256		mg/L		113	75 - 125
Boron	<0.500		4.00	4.946		mg/L		115	75 - 125
Cadmium	<0.0200		2.00	1.932		mg/L		97	75 - 125
Calcium	575		40.0	619.6	4	mg/L		112	75 - 125
Chromium	<0.0200		2.00	2.087		mg/L		104	75 - 125
Cobalt	<0.0500		2.00	2.032		mg/L		102	75 - 125
Copper	<0.100		4.00	4.322		mg/L		108	75 - 125

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

Lab Sample ID: 310-288059-2 MS
Matrix: Solid
Analysis Batch: 431821

Client Sample ID: MW2-CR-S
Prep Type: SPLP West
Prep Batch: 431649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	<0.100		4.00	3.921		mg/L		98	75 - 125
Lithium	<0.100		4.00	4.638		mg/L		115	75 - 125
Magnesium	157		40.0	200.2		mg/L		108	75 - 125
Manganese	0.139		2.00	2.285		mg/L		107	75 - 125
Molybdenum	0.217		4.00	4.619		mg/L		110	75 - 125
Nickel	<0.0500		4.00	4.013		mg/L		99	75 - 125
Potassium	31.6		40.0	78.43		mg/L		117	75 - 125
Selenium	<0.100		8.00	8.593		mg/L		107	75 - 125
Silver	<0.0500		2.00	1.743		mg/L		87	75 - 125
Thallium	<0.500		2.00	1.939		mg/L		97	75 - 125
Vanadium	3.57		2.00	5.761		mg/L		110	75 - 125
Zinc	<0.200		4.00	4.232		mg/L		106	75 - 125

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-430402/1-A
Matrix: Water
Analysis Batch: 430721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Antimony	<0.00200		0.00200		mg/L		08/15/24 08:45	08/16/24 16:13	1
Arsenic	<0.00200		0.00200		mg/L		08/15/24 08:45	08/16/24 16:13	1
Barium	<0.00200		0.00200		mg/L		08/15/24 08:45	08/16/24 16:13	1
Beryllium	<0.00100		0.00100		mg/L		08/15/24 08:45	08/16/24 16:13	1
Boron	<0.100		0.100		mg/L		08/15/24 08:45	08/16/24 16:13	1
Cadmium	<0.000200		0.000200		mg/L		08/15/24 08:45	08/16/24 16:13	1
Calcium	<0.500		0.500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Chromium	<0.00500		0.00500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Cobalt	<0.000500		0.000500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Copper	<0.00500		0.00500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Lead	<0.000500		0.000500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Magnesium	<0.500		0.500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Manganese	<0.0100		0.0100		mg/L		08/15/24 08:45	08/16/24 16:13	1
Molybdenum	<0.00200		0.00200		mg/L		08/15/24 08:45	08/16/24 16:13	1
Potassium	<0.500		0.500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Selenium	<0.00500		0.00500		mg/L		08/15/24 08:45	08/16/24 16:13	1
Silver	<0.00100		0.00100		mg/L		08/15/24 08:45	08/16/24 16:13	1
Sodium	<1.00		1.00		mg/L		08/15/24 08:45	08/16/24 16:13	1
Thallium	<0.00100		0.00100		mg/L		08/15/24 08:45	08/16/24 16:13	1
Zinc	<0.0200		0.0200		mg/L		08/15/24 08:45	08/16/24 16:13	1

Lab Sample ID: MB 310-430402/1-A
Matrix: Water
Analysis Batch: 430986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0100		0.0100		mg/L		08/15/24 08:45	08/20/24 22:33	1
Nickel	<0.00500		0.00500		mg/L		08/15/24 08:45	08/20/24 22:33	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-430402/1-A
Matrix: Water
Analysis Batch: 430986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.00500		0.00500		mg/L		08/15/24 08:45	08/20/24 22:33	1

Lab Sample ID: LCS 310-430402/2-A
Matrix: Water
Analysis Batch: 430721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2359		mg/L		118	80 - 120
Antimony	0.200	0.2404		mg/L		120	80 - 120
Arsenic	0.200	0.2303		mg/L		115	80 - 120
Barium	0.100	0.1089		mg/L		109	80 - 120
Beryllium	0.100	0.1166		mg/L		117	80 - 120
Boron	0.200	0.2178		mg/L		109	80 - 120
Cadmium	0.100	0.1092		mg/L		109	80 - 120
Calcium	2.00	1.972		mg/L		99	80 - 120
Chromium	0.100	0.1104		mg/L		110	80 - 120
Copper	0.200	0.2381		mg/L		119	80 - 120
Magnesium	2.00	2.334		mg/L		117	80 - 120
Manganese	0.100	0.09679		mg/L		97	80 - 120
Molybdenum	0.200	0.2009		mg/L		100	80 - 120
Potassium	2.00	2.140		mg/L		107	80 - 120
Selenium	0.400	0.4420		mg/L		110	80 - 120
Silver	0.100	0.1114		mg/L		111	80 - 120
Thallium	0.100	0.1120		mg/L		112	80 - 120
Zinc	0.200	0.1964		mg/L		98	80 - 120

Lab Sample ID: LCS 310-430402/2-A
Matrix: Water
Analysis Batch: 430986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.100	0.1108		mg/L		111	80 - 120
Lithium	0.200	0.2360		mg/L		118	80 - 120
Vanadium	0.100	0.1130		mg/L		113	80 - 120

Lab Sample ID: LCS 310-430402/2-A
Matrix: Water
Analysis Batch: 431230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.2333		mg/L		117	80 - 120

Lab Sample ID: LCS 310-430402/2-A
Matrix: Water
Analysis Batch: 431362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	0.200	0.2370		mg/L		119	80 - 120
Sodium	2.00	2.337		mg/L		117	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-430616/1-A ^5
Matrix: Solid
Analysis Batch: 431231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<18.7		18.7		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Arsenic	<0.746		0.746		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Barium	<0.746		0.746		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Beryllium	<0.373		0.373		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Boron	<37.3		37.3		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Cadmium	<0.373		0.373		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Calcium	<112		112		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Chromium	<1.12		1.12		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Cobalt	<0.373		0.373		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Copper	<1.12		1.12		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Lead	<1.87		1.87		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Lithium	<1.87		1.87		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Magnesium	<112		112		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Manganese	<1.87		1.87		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Molybdenum	<0.746		0.746		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Potassium	<112		112		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Selenium	<1.12		1.12		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Silver	<0.373		0.373		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Sodium	<187		187		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Thallium	<0.373		0.373		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Vanadium	<1.12		1.12		mg/Kg		08/22/24 09:30	08/22/24 17:47	5
Zinc	<3.73		3.73		mg/Kg		08/22/24 09:30	08/22/24 17:47	5

Lab Sample ID: MB 310-430616/1-A ^5
Matrix: Solid
Analysis Batch: 431362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<1.12		1.12		mg/Kg		08/22/24 09:30	08/23/24 16:14	5

Lab Sample ID: MB 310-430616/1-A ^5
Matrix: Solid
Analysis Batch: 431474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.746		0.746		mg/Kg		08/22/24 09:30	08/26/24 15:05	5

Lab Sample ID: LCS 310-430616/2-A ^20
Matrix: Solid
Analysis Batch: 431231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	172	185.3		mg/Kg		108	80 - 120
Arsenic	172	184.0		mg/Kg		107	80 - 120
Barium	85.9	92.08		mg/Kg		107	80 - 120
Beryllium	85.9	87.64		mg/Kg		102	80 - 120
Boron	172	193.6		mg/Kg		113	80 - 120
Cadmium	85.9	90.47		mg/Kg		105	80 - 120
Calcium	1720	1649		mg/Kg		96	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-430616/2-A ^20
Matrix: Solid
Analysis Batch: 431231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	85.9	80.31		mg/Kg		93	80 - 120
Cobalt	85.9	87.48		mg/Kg		102	80 - 120
Copper	172	188.9		mg/Kg		110	80 - 120
Lead	172	185.6		mg/Kg		108	80 - 120
Lithium	172	187.8		mg/Kg		109	80 - 120
Magnesium	1720	1893		mg/Kg		110	80 - 120
Manganese	85.9	83.80		mg/Kg		98	80 - 120
Molybdenum	172	173.5		mg/Kg		101	80 - 120
Potassium	1720	1846		mg/Kg		107	80 - 120
Selenium	344	368.4		mg/Kg		107	80 - 120
Silver	85.9	102.6		mg/Kg		119	80 - 120
Sodium	1720	1936		mg/Kg		113	80 - 120
Thallium	85.9	92.52		mg/Kg		108	80 - 120
Vanadium	85.9	81.64		mg/Kg		95	80 - 120
Zinc	172	170.8		mg/Kg		99	80 - 120

Lab Sample ID: LCS 310-430616/2-A ^20
Matrix: Solid
Analysis Batch: 431362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	172	158.5		mg/Kg		92	80 - 120

Lab Sample ID: LCS 310-430616/2-A ^20
Matrix: Solid
Analysis Batch: 431474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	172	199.9		mg/Kg		116	80 - 120

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-430438/1-A
Matrix: Water
Analysis Batch: 430534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430438

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		08/15/24 08:52	08/15/24 18:01	1

Lab Sample ID: LCS 310-430438/2-A
Matrix: Water
Analysis Batch: 430534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430438

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9195		mg/L		92	90 - 110

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: MB 310-430471/1-A
Matrix: Solid
Analysis Batch: 430534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<9.63		9.63		mg/Kg		08/15/24 10:36	08/15/24 18:26	1

Lab Sample ID: LCS 310-430471/2-A
Matrix: Solid
Analysis Batch: 430534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	96.3	93.49		mg/Kg		97	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-430583/2
Matrix: Water
Analysis Batch: 430583

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	893.7		mg/L		89	86 - 111

Lab Sample ID: LCS 310-430520/2-A
Matrix: Solid
Analysis Batch: 430583

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	96400	87920		mg/Kg		91	86 - 111

Lab Sample ID: 310-288059-2 DU
Matrix: Solid
Analysis Batch: 430583

Client Sample ID: MW2-CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	5640		5281		mg/Kg	☼	7	16
Bicarbonate Alkalinity as CaCO3	5640		5281		mg/Kg	☼	7	
Carbonate Alkalinity as CaCO3	<1790		<1790		mg/Kg	☼	NC	

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-430668/1
Matrix: Water
Analysis Batch: 430668

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			08/16/24 15:38	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 310-430668/2
Matrix: Water
Analysis Batch: 430668

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972.0		mg/L		97	88 - 110		

Lab Sample ID: 310-288059-1 DU
Matrix: Water
Analysis Batch: 430668

Client Sample ID: MW2-CR
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	532			534.0		mg/L				0.4	16

HPLC/IC

Leach Batch: 430448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Soluble	Solid	DI Leach	
MB 310-430448/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 310-430448/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 430649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Soluble	Solid	9056A	430448
310-288059-2	MW2-CR-S	Soluble	Solid	9056A	430448
MB 310-430448/1-A	Method Blank	Soluble	Solid	9056A	430448
LCS 310-430448/2-A	Lab Control Sample	Soluble	Solid	9056A	430448

Analysis Batch: 430845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	9056A	
310-288059-1	MW2-CR	Total/NA	Water	9056A	
310-288059-1	MW2-CR	Total/NA	Water	9056A	
MB 310-430845/3	Method Blank	Total/NA	Water	9056A	
LCS 310-430845/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 681517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	300.0	
MB 400-681517/7	Method Blank	Total/NA	Water	300.0	
LCS 400-681517/8	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-681517/9	Lab Control Sample Dup	Total/NA	Water	300.0	

Leach Batch: 681979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Soluble	Solid	DI Leach	
MB 400-681979/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 400-681979/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 400-681979/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
310-288059-2 MS	MW2-CR-S	Soluble	Solid	DI Leach	
310-288059-2 MSD	MW2-CR-S	Soluble	Solid	DI Leach	

Analysis Batch: 682067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Soluble	Solid	300.0	681979
MB 400-681979/1-A	Method Blank	Soluble	Solid	300.0	681979
LCS 400-681979/2-A	Lab Control Sample	Soluble	Solid	300.0	681979
LCSD 400-681979/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	681979
310-288059-2 MS	MW2-CR-S	Soluble	Solid	300.0	681979
310-288059-2 MSD	MW2-CR-S	Soluble	Solid	300.0	681979

Metals

Prep Batch: 430402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	3005A	
MB 310-430402/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-430402/2-A	Lab Control Sample	Total/NA	Water	3005A	

Metals

Prep Batch: 430616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Total/NA	Solid	3050B	
MB 310-430616/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 310-430616/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 430721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	6020B	430402
MB 310-430402/1-A	Method Blank	Total/NA	Water	6020B	430402
LCS 310-430402/2-A	Lab Control Sample	Total/NA	Water	6020B	430402

Analysis Batch: 430986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	6020B	430402
MB 310-430402/1-A	Method Blank	Total/NA	Water	6020B	430402
LCS 310-430402/2-A	Lab Control Sample	Total/NA	Water	6020B	430402

Analysis Batch: 431230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	6020B	430402
LCS 310-430402/2-A	Lab Control Sample	Total/NA	Water	6020B	430402

Analysis Batch: 431231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Total/NA	Solid	6020B	430616
MB 310-430616/1-A ^5	Method Blank	Total/NA	Solid	6020B	430616
LCS 310-430616/2-A ^20	Lab Control Sample	Total/NA	Solid	6020B	430616

Analysis Batch: 431362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	6020B	430402
310-288059-2	MW2-CR-S	Total/NA	Solid	6020B	430616
MB 310-430616/1-A ^5	Method Blank	Total/NA	Solid	6020B	430616
LCS 310-430402/2-A	Lab Control Sample	Total/NA	Water	6020B	430402
LCS 310-430616/2-A ^20	Lab Control Sample	Total/NA	Solid	6020B	430616

Leach Batch: 431372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	TCLP	Solid	1311	
LB 310-431372/1-B	Method Blank	TCLP	Solid	1311	
LCS 310-431372/2-B	Lab Control Sample	TCLP	Solid	1311	
310-288059-2 MS	MW2-CR-S	TCLP	Solid	1311	

Analysis Batch: 431474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Total/NA	Solid	6020B	430616
MB 310-430616/1-A ^5	Method Blank	Total/NA	Solid	6020B	430616
LCS 310-430616/2-A ^20	Lab Control Sample	Total/NA	Solid	6020B	430616

Leach Batch: 431585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	SPLP West	Solid	1312	

Metals (Continued)

Leach Batch: 431585 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-431585/1-B	Method Blank	SPLP West	Solid	1312	
LCS 310-431585/2-B	Lab Control Sample	SPLP West	Solid	1312	
310-288059-2 MS	MW2-CR-S	SPLP West	Solid	1312	

Prep Batch: 431644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	TCLP	Solid	3010A	431372
LB 310-431372/1-B	Method Blank	TCLP	Solid	3010A	431372
LCS 310-431372/2-B	Lab Control Sample	TCLP	Solid	3010A	431372
310-288059-2 MS	MW2-CR-S	TCLP	Solid	3010A	431372

Prep Batch: 431649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	SPLP West	Solid	3010A	431585
LB 310-431585/1-B	Method Blank	SPLP West	Solid	3010A	431585
LCS 310-431585/2-B	Lab Control Sample	SPLP West	Solid	3010A	431585
310-288059-2 MS	MW2-CR-S	SPLP West	Solid	3010A	431585

Analysis Batch: 431821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	SPLP West	Solid	6010D	431649
310-288059-2	MW2-CR-S	TCLP	Solid	6010D	431644
LB 310-431372/1-B	Method Blank	TCLP	Solid	6010D	431644
LB 310-431585/1-B	Method Blank	SPLP West	Solid	6010D	431649
LCS 310-431372/2-B	Lab Control Sample	TCLP	Solid	6010D	431644
LCS 310-431585/2-B	Lab Control Sample	SPLP West	Solid	6010D	431649
310-288059-2 MS	MW2-CR-S	SPLP West	Solid	6010D	431649
310-288059-2 MS	MW2-CR-S	TCLP	Solid	6010D	431644

General Chemistry

Analysis Batch: 430382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Total/NA	Solid	Moisture	

Prep Batch: 430438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	365.1	
MB 310-430438/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-430438/2-A	Lab Control Sample	Total/NA	Water	365.1	

Prep Batch: 430471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Total/NA	Solid	365.1	
MB 310-430471/1-A	Method Blank	Total/NA	Solid	365.1	
LCS 310-430471/2-A	Lab Control Sample	Total/NA	Solid	365.1	

Leach Batch: 430520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Soluble	Solid	DI Leach	
LCS 310-430520/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

General Chemistry (Continued)

Leach Batch: 430520 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2 DU	MW2-CR-S	Soluble	Solid	DI Leach	

Analysis Batch: 430534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	365.1	430438
310-288059-2	MW2-CR-S	Total/NA	Solid	365.1	430471
MB 310-430438/1-A	Method Blank	Total/NA	Water	365.1	430438
MB 310-430471/1-A	Method Blank	Total/NA	Solid	365.1	430471
LCS 310-430438/2-A	Lab Control Sample	Total/NA	Water	365.1	430438
LCS 310-430471/2-A	Lab Control Sample	Total/NA	Solid	365.1	430471

Analysis Batch: 430583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	SM 2320B	
310-288059-2	MW2-CR-S	Soluble	Solid	SM 2320B	430520
LCS 310-430520/2-A	Lab Control Sample	Soluble	Solid	SM 2320B	430520
LCS 310-430583/2	Lab Control Sample	Total/NA	Water	SM 2320B	
310-288059-2 DU	MW2-CR-S	Soluble	Solid	SM 2320B	430520

Analysis Batch: 430668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	SM 2540C	
MB 310-430668/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-430668/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-288059-1 DU	MW2-CR	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Client Sample ID: MW2-CR
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		20	681517	AMM	EET PEN	08/17/24 16:48
Total/NA	Analysis	9056A		100	430845	QTZ5	EET CF	08/14/24 13:10
Total/NA	Analysis	9056A		200	430845	QTZ5	EET CF	08/14/24 15:28
Total/NA	Analysis	9056A		5	430845	QTZ5	EET CF	08/14/24 15:41
Total/NA	Prep	3005A			430402	DHM5	EET CF	08/15/24 08:45
Total/NA	Analysis	6020B		80	430986	NFT2	EET CF	08/20/24 22:50
Total/NA	Prep	3005A			430402	DHM5	EET CF	08/15/24 08:45
Total/NA	Analysis	6020B		80	431230	NFT2	EET CF	08/22/24 21:19
Total/NA	Prep	3005A			430402	DHM5	EET CF	08/15/24 08:45
Total/NA	Analysis	6020B		80	431362	NFT2	EET CF	08/23/24 14:01
Total/NA	Prep	3005A			430402	DHM5	EET CF	08/15/24 08:45
Total/NA	Analysis	6020B		1	430721	NFT2	EET CF	08/16/24 16:37
Total/NA	Prep	365.1			430438	T5AC	EET CF	08/15/24 08:52
Total/NA	Analysis	365.1		1	430534	ZJX4	EET CF	08/15/24 18:13
Total/NA	Analysis	SM 2320B		1	430583	WZC8	EET CF	08/15/24 15:42
Total/NA	Analysis	SM 2540C		1	430668	MDU9	EET CF	08/16/24 15:38

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP West	Leach	1312			431585	U8FK	EET CF	08/27/24 15:26 - 08/28/24 07:26 [1]
SPLP West	Prep	3010A			431649	QTZ5	EET CF	08/29/24 09:00
SPLP West	Analysis	6010D		1	431821	ZRI4	EET CF	08/29/24 15:53
TCLP	Leach	1311			431372	U8FK	EET CF	08/27/24 15:00 - 08/28/24 07:00 [1]
TCLP	Prep	3010A			431644	QTZ5	EET CF	08/29/24 09:00
TCLP	Analysis	6010D		3	431821	ZRI4	EET CF	08/29/24 16:06
Total/NA	Analysis	Moisture		1	430382	T5AC	EET CF	08/14/24 15:23

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid
Percent Solids: 27.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			681979	AMM	EET PEN	08/21/24 14:53
Soluble	Analysis	300.0		1	682067	AMM	EET PEN	08/21/24 22:59
Soluble	Leach	DI Leach			430448	HE7K	EET CF	08/15/24 09:10
Soluble	Analysis	9056A		10	430649	QTZ5	EET CF	08/16/24 11:02
Soluble	Leach	DI Leach			430448	HE7K	EET CF	08/15/24 09:10
Soluble	Analysis	9056A		100	430649	QTZ5	EET CF	08/16/24 11:15
Total/NA	Prep	3050B			430616	QTZ5	EET CF	08/22/24 09:30
Total/NA	Analysis	6020B		35	431362	NFT2	EET CF	08/23/24 16:45

Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Client Sample ID: MW2-CR-S

Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2

Matrix: Solid
Percent Solids: 27.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			430616	QTZ5	EET CF	08/22/24 09:30
Total/NA	Analysis	6020B		5	431231	NFT2	EET CF	08/22/24 18:24
Total/NA	Prep	3050B			430616	QTZ5	EET CF	08/22/24 09:30
Total/NA	Analysis	6020B		35	431474	NFT2	EET CF	08/26/24 15:24
Total/NA	Prep	365.1			430471	T5AC	EET CF	08/15/24 10:36
Total/NA	Analysis	365.1		1	430534	ZJX4	EET CF	08/15/24 18:28
Soluble	Leach	DI Leach			430520	MDU9	EET CF	08/15/24 08:20
Soluble	Analysis	SM 2320B		1	430583	WZC8	EET CF	08/15/24 18:08

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

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

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium
6020B	3050B	Solid	Lithium
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids
SM 2320B		Solid	Bicarbonate Alkalinity as CaCO3
SM 2320B		Solid	Carbonate Alkalinity as CaCO3
SM 2320B		Solid	Total Alkalinity as CaCO3 to pH 4.5

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-25
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-25
California	State	2510	06-30-25
Florida	NELAP	E81010	06-30-25
Georgia	State	E81010(FL)	06-30-25
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-25
Louisiana (All)	NELAP	30976	06-30-25
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-25
Tennessee	State	TN02907	06-30-25
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-25
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	01-09-26
Virginia	NELAP	460166	06-14-25
West Virginia DEP	State	136	03-31-25

Method Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-1
SDG: MN2674

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PEN
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
Moisture	Percent Moisture	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
1311	TCLP Extraction	SW846	EET CF
1312	SPLP Extraction	SW846	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
3010A	Preparation, Total Metals	SW846	EET CF
3050B	Preparation, Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET PEN

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing America

310-288059 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: Geo Synthetic			
City/State: CITY Minneapolis		STATE MN	Project: Confidential
Receipt Information			
Date/Time Received:	DATE 8/14/24	TIME 0815	Received By:

Delivery Type: ☐ UPS ☒ FedEx FON ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☑ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present? No	☐ Yes	☐ No	*If yes:* Cooler custody seals intact? ☑ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R	Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 3.2	Corrected Temp (°C): 3.2

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way

Cedar Falls, IA 50613
phone 319.277 2401 fax 319.277 2425

Chain of Custody Record

eurofins

Eurofins Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other IDNR

Client Contact	**Project Manager: Krista Brodersen**		COC No
Geosyntec	Email Krista.Brodersen@geosyntec.com	**Site Contact: Krista Brodersen**	**Date: 8-12-2024**	1 of 1 COCs
250 Marquette Avenue South, Suite 590	**Tel/Fax: 309-948-4128**	**Lab Contact:**	**Carrier:**	TALS Project #
Minneapolis, MN 55401	**Analysis Turnaround Time**			Sampler: Dakota Tallman
612-253-8200 Phone	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(xxx) xxx-xxxx FAX	TAT if different from Below _____			Walk-in Client:
Project Name Continental	☑ 2 weeks			Lab Sampling
Site MN2674	☐ 1 week			Job / SDG No
P O #	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Total Metals	Nitrate and N, Nitrite as N	Chloride, Flouride, and Sulfate	Total Phosphorus	Alkalinity - Total Bicarbonate, Carbonate	TCLP Meals	SPLP Metals	Sample Specific Notes
MW2-CR	8-12-24	16:20	G	W		N		X	X	X	X	X			
MW2-CR-S	8/12/24	16:20	G	S		N		X	X	X	X	X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

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

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

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No _____

Relinquished by	Company: Geosyntec	Date/Time: 8-12-24 1860	Received by	Company	Date/Time: 8/13/24 1100
Relinquished by	Company	Date/Time: 8/13/1871	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time: 8/14/24 0835 0815

8/20/2024

Conner Calhoun

From: Krista Brodersen <Krista.Brodersen@Geosyntec.com>
Sent: Wednesday, August 14, 2024 1:06 PM
To: Conner Calhoun
Subject: RE: 310-288059 Continental Sample Confirmation files from Eurofins North Central

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Conner,

Yes – it's the same project.

I think I may have missed a couple of items on the COC. The analysis we need are as follows:

- total aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, lithium, magnesium, manganese, molybdenum, nickel, potassium, selenium, silver, thallium, vanadium, and zinc
- calcium, chloride, fluoride, and sulfate
- bicarbonate alkalinity and carbonate alkalinity
- nitrate and nitrite
- bromate
- phosphorus
- sodium
- total dissolved solids

Can you add what is needed from the list above to the COC please?

Thank you,

Krista Brodersen
Senior Scientist

Geosyntec consultants

engineers | scientists | innovators

250 Marquette Avenue South, Suite 590
Minneapolis, Minnesota 55401
Phone: 612-253-8200
NEW Mobile: 309-948-4128
www.Geosyntec.com

B&B Engineers & Geologists
of new york, p.c.
an affiliate of Geosyntec Consultants

From: Conner Calhoun <TALS@reports.et.eurofinsus.com>
Sent: Wednesday, August 14, 2024 11:41 AM
To: Krista Brodersen <Krista.Brodersen@Geosyntec.com>
Subject: 310-288059 Continental Sample Confirmation files from Eurofins North Central

Hey Krista,

Good to see your name come accross again. Is this the same Buffalo IA project as before?

Attached, please find the Sample Confirmation files for job 310-288059; Continental

Please review the attachments for accuracy and notify your Project Manager of any discrepancies as quickly as possible.

Any discrepancies not communicated in a timely fashion could result in missed holding times, TAT delays and may potentially incur additional charges.

Please feel free to contact me or your PM, Zach Bindert, if you have any questions.

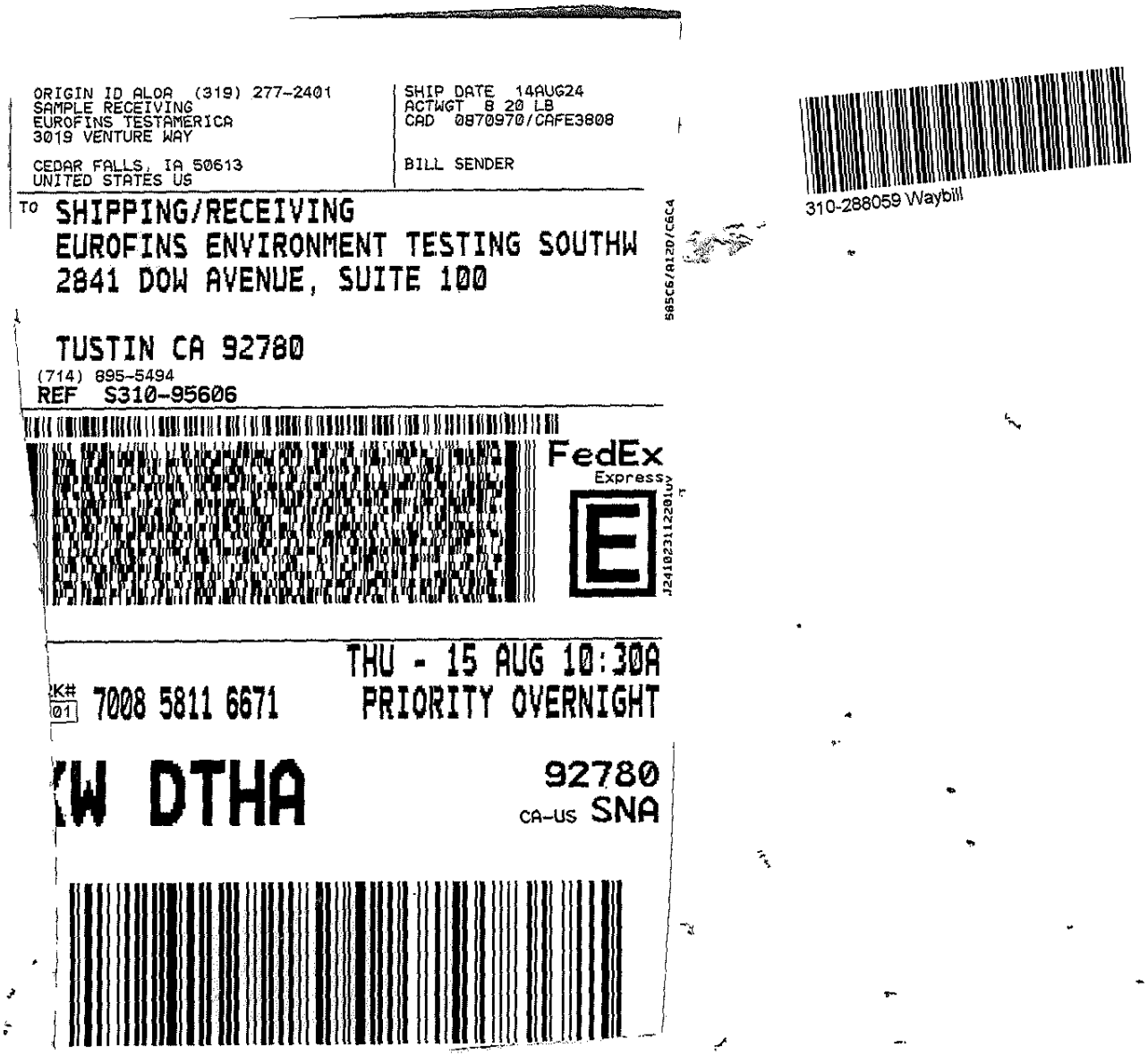
Thank you.

Conner M Calhoun
Project Manager Assistant

Eurofins Cedar Falls
Phone: 319-277-2401

E-mail: Conner.Calhoun@et.eurofinsus.com
www.eurofinsus.com/env

Reference: [310-733437]
Attachments: 2



ORIGIN ID ALOA (319) 277-2401
SAMPLE RECEIVING
EUROFINS TESTAMERICA
3019 VENTURE WAY

CEDAR FALLS, IA 50613
UNITED STATES US

SHIP DATE 14AUG24
ACTWGT 8.20 LB
CAD 0870970/CAFE3808

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHW
2841 DOW AVENUE, SUITE 100

TUSTIN CA 92780
(714) 895-5494
REF S310-95606

FedEx Express

J241823112201uv

THU - 15 AUG 10:30A
PRIORITY OVERNIGHT

7008 5811 6671

92780
CA-US SNA

310-288059 Waybill

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-75358.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): State - Iowa		Job #: 310-288059-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 8/27/2024			Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Continental	Project #: 31017909			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	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)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW2-CR (310-288059-1)	8/12/24	16:20 Central	G	Water			X		

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/14/24 1415				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/15/24 9:14	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.2°C IR8

Ver: 05/06/2024

XH PNSA

32514
FL-US BFM

TRK# 0201 7008 5811 6616

THU - 15 AUG 10:30A
PRIORITY OVERNIGHT

J241023110

585C6/A12D/C6C4

ORIGIN ID:ALOA (319) 277-2401
SAMPLE RECEIVING
EUROFINS TESTAMERICA
3019 VENTURE WAY
CEDAR FALLS, IA 50613
UNITED STATES US

BILL SENDER

SHIP DATE: 14AUG24
ACTWGT: 6.90 LB
CAD: 8709970/CAFE3808

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHE
3355 MCLEMORE DRIVE
PENSACOLA FL 32514
(850) 474-1001
REF: S310-95596

eurofins | Environment Testing

Temperature Controlled

IF THIS SHIPMENT IS DELAYED IN TRANSIT,
STORE REFRIGERATED (2° TO 8° C / 36° TO 47° F)

TAL-0090(1016)

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-75546.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): State - Iowa		Job #: 310-288059-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 8/27/2024	Analysis Requested		Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Continental	Project #: 31017909			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	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)	300_ORGFM_28D/DI_LEACH (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW2-CR-S (310-288059-2)	8/12/24	16:20 Central	G	Solid			X		

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*		*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)	Primary Deliverable Rank: 1	Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
T. Dehl [signature]	8 20 24 1225				
			[signature]	8.21.24 9:43	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.1 IR11

Ver: 05/06/2024

RT 574
FZ
A 8273 08.21
1 10:30

Part # 159469-434 MTW EXP 03/25

ORIGIN ID:ALOA (319) 277-2401
SAMPLE RECEIVING
EUROFINS TESTAMERICA
3019 VENTURE WAY

CEDAR FALLS, IA 50613
UNITED STATES US

SHIP DATE: 20AUG24
ACTWGT: 6.15 LB
CAD: 0870970/CAFE3808

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHE
3355 MCLEMORE DRIVE

PENSACOLA FL 32514
(850) 474-1001
REF: S310-95756

3.1°C

FedEx
Express

E

WED - 21 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7008 5811 8273

XH PNSA

32514
FL-US BFM

Eurofins Dallas
9701 Harry Hines Blvd
Dallas, TX 75220
Phone: 214-902-0300

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kimmel, Mike M	Carrier Tracking No(s):	COC No: 870-6899.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Mike.Kimmel@et.eurofinsus.com	State of Origin: Texas	Page: Page 2 of 2
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): NELAP - Texas		Job #: 870-29487-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 8/27/2024			Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Cedar Creek Lake	Project #: 87000372			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	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)	2640D	160.4_VSS/ 160.4- VSS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CC-05,B (870-29487-10)	8/20/24	10:00 Central	G	Water			X	X	1	Pensacola
CC-06,T (870-29487-11)	8/20/24	09:05 Central	G	Water			X	X	1	Pensacola
CC-06,B (870-29487-12)	8/20/24	09:15 Central	G	Water			X	X	1	Pensacola
Rep (870-29487-13)	8/20/24	Central	G	Water			X	X	1	Pensacola

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements: FEDEX

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

Relinquished by:	Date/Time:	Company	Received by: AUG 20 2024	Date/Time:	Company
	08/20/24-1700				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8-21-24 9:43	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.6 IR11

Ver: 05/06/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins

En Loc. 310 **288059**

Client Information (Sub Contract Lab)	Sampler	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-75365.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Iowa		Job #: 310-288059-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 8/27/2024			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: Continental	Project #: 31017909			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other:

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.1_28D/DI_LEACH Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW2-CR-S (310-288059-2)	8/12/24	16:20 Central	G	Solid			X	1	

310-288059 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II III IV Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/9/24 1550				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by: Fedex	Date/Time:	Company	Received by:	Date/Time: 8/15/24 0945	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 2.7/2.7 SG2

Ver: 05/06/2024

8/30/2024

Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 310-288059-1
SDG Number: MN2674

Login Number: 288059
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 310-288059-1
SDG Number: MN2674

Login Number: 288059
List Number: 3
Creator: Roberts, Darrien

List Source: Eurofins Pensacola
List Creation: 08/15/24 06:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	1.2°C IR8
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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 310-288059-1
SDG Number: MN2674

Login Number: 288059
List Number: 4
Creator: (Roberts) Beecher, Alexis J

List Source: Eurofins Pensacola
List Creation: 08/21/24 01:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1°C IR11
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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Brodersen
Geosyntec Consultants Inc
250 Marquette Avenue South
Suite 590
Minneapolis, Minnesota 55401

Generated 9/16/2024 2:33:38 PM

JOB DESCRIPTION

Continental
MN2674

JOB NUMBER

310-288059-3

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

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 North Central, LLC Project Manager.

Authorization

Generated
9/16/2024 2:33:38 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Job ID: 310-288059-3 — Eurofins Cedar Falls

Job Narrative
310-288059-3

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 8/14/2024 8:15 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 3.2°C.

Metals
Method 7470A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: MW2-CR (310-288059-1). The sample(s) was preserved to the appropriate pH in the laboratory.

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.

Sample Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-288059-1	MW2-CR	Water	08/12/24 16:20	08/14/24 08:15
310-288059-2	MW2-CR-S	Solid	08/12/24 16:20	08/14/24 08:15

Detection Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Client Sample ID: MW2-CR — Lab Sample ID: 310-288059-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000387		0.000200		mg/L	1		7470A	Total/NA
pH	8.00	HF	1.00		SU	1		9040C	Total/NA

Client Sample ID: MW2-CR-S — Lab Sample ID: 310-288059-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	8.0	HF	1.0		SU	1		9045D	Soluble

This Detection Summary does not include radiochemical test results.

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Client Sample ID: MW2-CR
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-1
Matrix: Water

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000387		0.000200		mg/L		09/03/24 14:45	09/04/24 16:53	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	8.00	HF	1.00		SU			09/03/24 10:25	1

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		09/03/24 14:45	09/04/24 11:12	1

Method: SW846 7470A - Mercury (CVAA) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		09/03/24 14:45	09/04/24 11:20	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	**8.0**	**HF**	1.0		SU			09/03/24 16:08	1

Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid
Percent Solids: 27.1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0582	H	0.0582		mg/Kg	☼	09/13/24 15:35	09/16/24 10:30	1

Definitions/Glossary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Qualifiers

Metals

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

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

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-432040/1-A
Matrix: Water
Analysis Batch: 432233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		09/03/24 14:45	09/04/24 16:01	1

Lab Sample ID: LCS 310-432040/2-A
Matrix: Water
Analysis Batch: 432233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001674		mg/L		100	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 310-432668/1-A
Matrix: Solid
Analysis Batch: 433312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432668

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0171		0.0171		mg/Kg		09/13/24 15:35	09/16/24 10:26	1

Lab Sample ID: LCS 310-432668/2-A
Matrix: Solid
Analysis Batch: 433312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.143	0.1458		mg/Kg		102	80 - 120

Lab Sample ID: 310-288059-2 MS
Matrix: Solid
Analysis Batch: 433312

Client Sample ID: MW2-CR-S
Prep Type: Total/NA
Prep Batch: 432668

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.0582	H	0.482	0.5399		mg/Kg	☼	100	80 - 120

Lab Sample ID: 310-288059-2 MSD
Matrix: Solid
Analysis Batch: 433312

Client Sample ID: MW2-CR-S
Prep Type: Total/NA
Prep Batch: 432668

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.0582	H	0.480	0.5353		mg/Kg	☼	100	80 - 120	1	20

Method: 9040C - pH

Lab Sample ID: LCS 310-432043/1
Matrix: Water
Analysis Batch: 432043

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.040		SU		101	98 - 102

QC Sample Results

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Method: 9045D - pH

Lab Sample ID: LCS 310-432113/1
Matrix: Solid
Analysis Batch: 432113

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100	98 - 102		

Lab Sample ID: 310-288059-2 DU
Matrix: Solid
Analysis Batch: 432113

Client Sample ID: MW2-CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.0	HF		7.9		SU				0.4	20

Metals

Leach Batch: 431372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	TCLP	Solid	1311	

Leach Batch: 431585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	SPLP West	Solid	1312	

Prep Batch: 432031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	TCLP	Solid	7470A	431372

Prep Batch: 432032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	SPLP West	Solid	7470A	431585

Prep Batch: 432040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	7470A	
MB 310-432040/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-432040/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 432225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	SPLP West	Solid	7470A	432032
310-288059-2	MW2-CR-S	TCLP	Solid	7470A	432031

Analysis Batch: 432233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	7470A	432040
MB 310-432040/1-A	Method Blank	Total/NA	Water	7470A	432040
LCS 310-432040/2-A	Lab Control Sample	Total/NA	Water	7470A	432040

Prep Batch: 432668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Total/NA	Solid	7471B	
MB 310-432668/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 310-432668/2-A	Lab Control Sample	Total/NA	Solid	7471B	
310-288059-2 MS	MW2-CR-S	Total/NA	Solid	7471B	
310-288059-2 MSD	MW2-CR-S	Total/NA	Solid	7471B	

Analysis Batch: 433312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Total/NA	Solid	7471B	432668
MB 310-432668/1-A	Method Blank	Total/NA	Solid	7471B	432668
LCS 310-432668/2-A	Lab Control Sample	Total/NA	Solid	7471B	432668
310-288059-2 MS	MW2-CR-S	Total/NA	Solid	7471B	432668
310-288059-2 MSD	MW2-CR-S	Total/NA	Solid	7471B	432668

QC Association Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

General Chemistry

Analysis Batch: 432043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-1	MW2-CR	Total/NA	Water	9040C	
LCS 310-432043/1	Lab Control Sample	Total/NA	Water	9040C	

Leach Batch: 432094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Soluble	Solid	DI Leach	
310-288059-2 DU	MW2-CR-S	Soluble	Solid	DI Leach	

Analysis Batch: 432113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-288059-2	MW2-CR-S	Soluble	Solid	9045D	432094
LCS 310-432113/1	Lab Control Sample	Total/NA	Solid	9045D	
310-288059-2 DU	MW2-CR-S	Soluble	Solid	9045D	432094

Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Client Sample ID: MW2-CR
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			432040	DHM5	EET CF	09/03/24 14:45
Total/NA	Analysis	7470A		1	432233	DHM5	EET CF	09/04/24 16:53
Total/NA	Analysis	9040C		1	432043	W9YR	EET CF	09/03/24 10:25

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP West	Leach	1312			431585	U8FK	EET CF	08/27/24 15:26 - 08/28/24 07:26 [1]
SPLP West	Prep	7470A			432032	DHM5	EET CF	09/03/24 14:45
SPLP West	Analysis	7470A		1	432225	DHM5	EET CF	09/04/24 11:20
TCLP	Leach	1311			431372	U8FK	EET CF	08/27/24 15:00 - 08/28/24 07:00 [1]
TCLP	Prep	7470A			432031	DHM5	EET CF	09/03/24 14:45
TCLP	Analysis	7470A		1	432225	DHM5	EET CF	09/04/24 11:12
Soluble	Leach	DI Leach			432094	T5AC	EET CF	09/03/24 14:27
Soluble	Analysis	9045D		1	432113	T5AC	EET CF	09/03/24 16:08

Client Sample ID: MW2-CR-S
Date Collected: 08/12/24 16:20
Date Received: 08/14/24 08:15

Lab Sample ID: 310-288059-2
Matrix: Solid
Percent Solids: 27.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			432668	DHM5	EET CF	09/13/24 15:35
Total/NA	Analysis	7471B		1	433312	DHM5	EET CF	09/16/24 10:30

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Method Summary

Client: Geosyntec Consultants Inc
Project/Site: Continental

Job ID: 310-288059-3
SDG: MN2674

Method	Method Description	Protocol	Laboratory
7470A	Mercury (CVAA)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
9040C	pH	SW846	EET CF
9045D	pH	SW846	EET CF
1311	TCLP Extraction	SW846	EET CF
1312	SPLP Extraction	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF

Protocol References:

ASTM = ASTM International

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 310-288059-3
SDG Number: MN2674

Login Number: 288059
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

MARCH 2024 LABORATORY REPORT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Lindsay James
Blackstone Environmental, Inc
16200 Foster Street
Overland Park, Kansas 66085

Generated 4/1/2024 9:54:23 AM

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-277140-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

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 North Central, LLC Project Manager.

Authorization

Generated
4/1/2024 9:54:23 AM

Authorized for release by
Conner Calhoun, Project Management Assistant I
Conner.Calhoun@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-277140-1 — Eurofins Cedar Falls

Job Narrative
310-277140-1

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 3/20/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.5°C, 0.8°C, 0.9°C and 5.2°C.

HPLC/IC
Method 9056A_ORGFM_28D: The laboratory control sample (LCS) for analytical batch 400-666281 recovered outside control limits for the following analytes: Bromate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 9056A_ORGFM_28D: The following samples were diluted due to the abundance of non-target analytes: L-Sump (310-277140-1) and LL-3 (310-277140-5). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: L-Sump (310-277140-1), UL-2R (310-277140-4), LL-3 (310-277140-5), UL-3R (310-277140-6), MW-4 (310-277140-9), MW-4L (310-277140-10), MW-18 (310-277140-11), MW-11 (310-277140-19), (310-277140-A-1 MS), (310-277140-A-1 MSD) and (310-277140-A-11 DU). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B: The following sample was received with insufficient preservation: LL-1 (310-277140-2). The maximum amount of preservative was added by the laboratory, but the sample remained basic. No further attempt was made to acidify the sample, as it would have diluted the sample. This does not meet regulatory requirements.

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.

Job ID: 310-277140-2 — Eurofins Cedar Falls

Job Narrative
310-277140-2

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 3/20/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.5°C, 0.8°C, 0.9°C and 5.2°C.

HPLC/IC
Method 9056A_ORGFM_48H: The following sample had insufficient time remaining to perform the analysis within holding time: LL-1 (310-277140-2).

Method 9056A_ORGFM_48H: The following samples had insufficient time remaining to perform the analysis within holding time: L-Sump (310-277140-1), LL-2 (310-277140-3), UL-2R (310-277140-4), LL-3 (310-277140-5), UL-3R (310-277140-6), MW-12 (310-277140-7), MW-5 (310-277140-8), MW-4 (310-277140-9), MW-4L (310-277140-10) and MW-18 (310-277140-11).

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

Sample Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-277140-1	L-Sump	Water	03/18/24 12:10	03/20/24 09:20
310-277140-2	LL-1	Water	03/18/24 12:25	03/20/24 09:20
310-277140-3	LL-2	Water	03/18/24 13:10	03/20/24 09:20
310-277140-4	UL-2R	Water	03/18/24 13:15	03/20/24 09:20
310-277140-5	LL-3	Water	03/18/24 13:45	03/20/24 09:20
310-277140-6	UL-3R	Water	03/18/24 13:55	03/20/24 09:20
310-277140-7	MW-12	Water	03/18/24 14:25	03/20/24 09:20
310-277140-8	MW-5	Water	03/18/24 14:50	03/20/24 09:20
310-277140-9	MW-4	Water	03/18/24 15:40	03/20/24 09:20
310-277140-10	MW-4L	Water	03/18/24 16:00	03/20/24 09:20
310-277140-11	MW-18	Water	03/18/24 16:10	03/20/24 09:20
310-277140-12	MW-7	Water	03/19/24 08:45	03/20/24 09:20
310-277140-13	MW-19	Water	03/19/24 09:25	03/20/24 09:20
310-277140-14	MW-1A	Water	03/19/24 10:15	03/20/24 09:20
310-277140-15	MW-1B	Water	03/19/24 10:00	03/20/24 09:20
310-277140-16	MW-21	Water	03/19/24 11:00	03/20/24 09:20
310-277140-17	MW-2A	Water	03/19/24 11:30	03/20/24 09:20
310-277140-18	MW-3L	Water	03/19/24 12:00	03/20/24 09:20
310-277140-19	MW-11	Water	03/19/24 12:30	03/20/24 09:20
310-277140-20	Q-Sump	Water	03/19/24 13:00	03/20/24 09:20
310-277140-21	Dupe	Water	03/19/24 09:30	03/20/24 09:20
310-277140-22	MW-16	Water	03/19/24 13:30	03/20/24 09:20
310-277140-23	MW-16L	Water	03/19/24 13:35	03/20/24 09:20
310-277140-24	MW-14	Water	03/19/24 14:10	03/20/24 09:20
310-277140-25	MW-13	Water	03/19/24 14:30	03/20/24 09:20
310-277140-26	MW-15	Water	03/19/24 14:55	03/20/24 09:20
310-277140-27	MW-20	Water	03/19/24 15:15	03/20/24 09:20

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: L-Sump — Lab Sample ID: 310-277140-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6910		100		mg/L	100		9056A	Total/NA
Nitrate as N	2.29	H	0.200		mg/L	1		9056A	Total/NA
Fluoride	0.286		0.200		mg/L	1		9056A	Total/NA
Sulfate	4000		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.0800		0.00200		mg/L	1		6020B	Total/NA
Chromium	0.602		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.00420		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0436		0.00500		mg/L	1		6020B	Total/NA
Lithium	1.60		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.0368		0.00500		mg/L	1		6020B	Total/NA
Potassium	8320		100		mg/L	200		6020B	Total/NA
Selenium	0.367		0.00500		mg/L	1		6020B	Total/NA
Sodium	474		200		mg/L	200		6020B	Total/NA
Vanadium	0.117		0.00500		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.250	F1	0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1390		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	492		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	22300		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-1 — Lab Sample ID: 310-277140-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1660		50.0		mg/L	50		9056A	Total/NA
Fluoride	0.227		0.200		mg/L	1		9056A	Total/NA
Sulfate	20.8		1.00		mg/L	1		9056A	Total/NA
Arsenic	0.00300		0.00200		mg/L	1		6020B	Total/NA
Barium	0.175		0.00200		mg/L	1		6020B	Total/NA
Calcium	593		50.0		mg/L	100		6020B	Total/NA
Cobalt	0.000899		0.000500		mg/L	1		6020B	Total/NA
Lead	0.101		0.0500		mg/L	100		6020B	Total/NA
Lithium	1.71		1.00		mg/L	100		6020B	Total/NA
Nickel	0.0226		0.00500		mg/L	1		6020B	Total/NA
Potassium	3580		50.0		mg/L	100		6020B	Total/NA
Selenium	0.0563		0.00500		mg/L	1		6020B	Total/NA
Sodium	104		100		mg/L	100		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	3020		25.0		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	772		25.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9100		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-2 — Lab Sample ID: 310-277140-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2660		50.0		mg/L	50		9056A	Total/NA
Nitrate as N	0.341	H	0.200		mg/L	1		9056A	Total/NA
Sulfate	1440		50.0		mg/L	50		9056A	Total/NA
Barium	0.112		0.00200		mg/L	1		6020B	Total/NA
Calcium	1150		10.0		mg/L	20		6020B	Total/NA
Cobalt	0.00698		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0670		0.0100		mg/L	1		6020B	Total/NA
Magnesium	250		10.0		mg/L	20		6020B	Total/NA
Manganese	37.3		0.200		mg/L	20		6020B	Total/NA
Nickel	0.0449		0.00500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LL-2 (Continued) — Lab Sample ID: 310-277140-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	710		10.0		mg/L	20		6020B	Total/NA
Sodium	241		20.0		mg/L	20		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	351		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	351		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6000		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: UL-2R — Lab Sample ID: 310-277140-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	679		50.0		mg/L	50		9056A	Total/NA
Sulfate	335		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.0322		0.00200		mg/L	1		6020B	Total/NA
Barium	0.587		0.00200		mg/L	1		6020B	Total/NA
Calcium	734		10.0		mg/L	20		6020B	Total/NA
Chromium	0.0489		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.0100		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0421		0.00500		mg/L	1		6020B	Total/NA
Lead	0.0240		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.262		0.0100		mg/L	1		6020B	Total/NA
Magnesium	36.0		10.0		mg/L	20		6020B	Total/NA
Manganese	1.51		0.200		mg/L	20		6020B	Total/NA
Molybdenum	0.0194		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.0502		0.00500		mg/L	1		6020B	Total/NA
Potassium	1120		10.0		mg/L	20		6020B	Total/NA
Selenium	0.0138		0.00500		mg/L	1		6020B	Total/NA
Sodium	85.1		20.0		mg/L	20		6020B	Total/NA
Thallium	0.00614		0.00100		mg/L	1		6020B	Total/NA
Vanadium	0.0584		0.00500		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.706		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1220		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	77.0		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	3200		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-3 — Lab Sample ID: 310-277140-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10700		200		mg/L	200		9056A	Total/NA
Sulfate	10700		200		mg/L	200		9056A	Total/NA
Potassium	14000		100		mg/L	200		6020B	Total/NA
Sodium	814		200		mg/L	200		6020B	Total/NA
Total Phosphorus as P	7.35		1.00		mg/L	10		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1040		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	680		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	46500		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: UL-3R — Lab Sample ID: 310-277140-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	121		50.0		mg/L	50		9056A	Total/NA
Sulfate	43.7		5.00		mg/L	5		9056A	Total/NA
Barium	0.544		0.00200		mg/L	1		6020B	Total/NA
Calcium	493		2.00		mg/L	4		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: UL-3R (Continued)

Lab Sample ID: 310-277140-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0119		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.00578		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0495		0.00500		mg/L	1		6020B	Total/NA
Lead	0.00493		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0129		0.0100		mg/L	1		6020B	Total/NA
Magnesium	5.51		2.00		mg/L	4		6020B	Total/NA
Manganese	0.308		0.0400		mg/L	4		6020B	Total/NA
Molybdenum	0.0101		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.0317		0.00500		mg/L	1		6020B	Total/NA
Potassium	183		2.00		mg/L	4		6020B	Total/NA
Selenium	0.00795		0.00500		mg/L	1		6020B	Total/NA
Sodium	15.5		4.00		mg/L	4		6020B	Total/NA
Thallium	0.00195		0.00100		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1270		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	61.0		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2600		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-12

Lab Sample ID: 310-277140-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	84.6		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.661		0.200		mg/L	1		9056A	Total/NA
Sulfate	201		50.0		mg/L	50		9056A	Total/NA
Barium	0.0793		0.00200		mg/L	1		6020B	Total/NA
Boron	0.884		0.100		mg/L	1		6020B	Total/NA
Calcium	112		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00394		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0663		0.0100		mg/L	1		6020B	Total/NA
Magnesium	65.1		0.500		mg/L	1		6020B	Total/NA
Manganese	1.66		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00816		0.00500		mg/L	1		6020B	Total/NA
Potassium	9.41		0.500		mg/L	1		6020B	Total/NA
Sodium	58.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	336		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	336		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	724		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 310-277140-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	490		50.0		mg/L	50		9056A	Total/NA
Fluoride	0.343		0.200		mg/L	1		9056A	Total/NA
Sulfate	917		50.0		mg/L	50		9056A	Total/NA
Barium	0.0308		0.00200		mg/L	1		6020B	Total/NA
Boron	0.178		0.100		mg/L	1		6020B	Total/NA
Calcium	371		2.00		mg/L	4		6020B	Total/NA
Cobalt	0.000675		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0804		0.0100		mg/L	1		6020B	Total/NA
Magnesium	113		2.00		mg/L	4		6020B	Total/NA
Manganese	0.124		0.0400		mg/L	4		6020B	Total/NA
Molybdenum	0.00274		0.00200		mg/L	1		6020B	Total/NA
Potassium	220		2.00		mg/L	4		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-5 (Continued) — Lab Sample ID: 310-277140-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	48.7		4.00		mg/L	4		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	331		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	331		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2460		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 310-277140-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1160		50.0		mg/L	50		9056A	Total/NA
Fluoride	1.49		0.200		mg/L	1		9056A	Total/NA
Sulfate	1970		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.0312		0.00200		mg/L	1		6020B	Total/NA
Barium	0.00778		0.00200		mg/L	1		6020B	Total/NA
Boron	0.295		0.100		mg/L	1		6020B	Total/NA
Lithium	0.546		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.143		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00747		0.00500		mg/L	1		6020B	Total/NA
Potassium	2720		40.0		mg/L	80		6020B	Total/NA
Sodium	224		80.0		mg/L	80		6020B	Total/NA
Total Phosphorus as P	0.265		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1320		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	31.9		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1290		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7840		500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4L — Lab Sample ID: 310-277140-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1560		50.0		mg/L	50		9056A	Total/NA
Nitrate as N	0.307	H	0.200		mg/L	1		9056A	Total/NA
Fluoride	2.23		0.200		mg/L	1		9056A	Total/NA
Sulfate	3040		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.0102		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0151		0.00200		mg/L	1		6020B	Total/NA
Boron	0.403		0.100		mg/L	1		6020B	Total/NA
Lead	0.000930		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.767		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.237		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00601		0.00500		mg/L	1		6020B	Total/NA
Potassium	3610		50.0		mg/L	100		6020B	Total/NA
Sodium	329		100		mg/L	100		6020B	Total/NA
Total Phosphorus as P	0.213		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1420		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	56.6		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1370		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	10700		500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-18 — Lab Sample ID: 310-277140-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1600		50.0		mg/L	50		9056A	Total/NA
Fluoride	2.06		0.200		mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-18 (Continued) — Lab Sample ID: 310-277140-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	3170		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.00814		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0127		0.00200		mg/L	1		6020B	Total/NA
Boron	0.404		0.100		mg/L	1		6020B	Total/NA
Lithium	0.740		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.211		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00569		0.00500		mg/L	1		6020B	Total/NA
Potassium	3920		50.0		mg/L	100		6020B	Total/NA
Sodium	358		100		mg/L	100		6020B	Total/NA
Total Phosphorus as P	0.187		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1450		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	72.8		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1380		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000		500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 310-277140-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.22		1.00		mg/L	1		9056A	Total/NA
Nitrate as N	0.493		0.200		mg/L	1		9056A	Total/NA
Fluoride	0.203		0.200		mg/L	1		9056A	Total/NA
Sulfate	36.5		1.00		mg/L	1		9056A	Total/NA
Barium	0.159		0.00200		mg/L	1		6020B	Total/NA
Boron	0.205		0.100		mg/L	1		6020B	Total/NA
Calcium	81.3		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0308		0.0100		mg/L	1		6020B	Total/NA
Magnesium	45.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.145		0.0100		mg/L	1		6020B	Total/NA
Potassium	5.18		0.500		mg/L	1		6020B	Total/NA
Sodium	19.6		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	365		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	365		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	398		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-277140-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.42		1.00		mg/L	1		9056A	Total/NA
Sulfate	46.2		1.00		mg/L	1		9056A	Total/NA
Barium	0.137		0.00200		mg/L	1		6020B	Total/NA
Boron	0.274		0.100		mg/L	1		6020B	Total/NA
Calcium	102		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.0709		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0135		0.00500		mg/L	1		6020B	Total/NA
Lead	0.000992		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0356		0.0100		mg/L	1		6020B	Total/NA
Magnesium	42.5		0.500		mg/L	1		6020B	Total/NA
Manganese	0.669		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.0248		0.00500		mg/L	1		6020B	Total/NA
Potassium	4.83		0.500		mg/L	1		6020B	Total/NA
Sodium	24.6		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.240		0.100		mg/L	1		365.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-19 (Continued) — Lab Sample ID: 310-277140-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	374		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	374		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	382		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1A — Lab Sample ID: 310-277140-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.51		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.930		0.200		mg/L	1		9056A	Total/NA
Sulfate	21.6		1.00		mg/L	1		9056A	Total/NA
Barium	0.130		0.00200		mg/L	1		6020B	Total/NA
Boron	1.30		0.100		mg/L	1		6020B	Total/NA
Calcium	64.7		0.500		mg/L	1		6020B	Total/NA
Lithium	0.107		0.0100		mg/L	1		6020B	Total/NA
Magnesium	41.4		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0213		0.0100		mg/L	1		6020B	Total/NA
Potassium	11.1		0.500		mg/L	1		6020B	Total/NA
Sodium	39.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	388		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	388		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	390		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1B — Lab Sample ID: 310-277140-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19.6		1.00		mg/L	1		9056A	Total/NA
Sulfate	389		50.0		mg/L	50		9056A	Total/NA
Barium	0.0736		0.00200		mg/L	1		6020B	Total/NA
Calcium	218		0.500		mg/L	1		6020B	Total/NA
Magnesium	77.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0708		0.0100		mg/L	1		6020B	Total/NA
Potassium	7.75		0.500		mg/L	1		6020B	Total/NA
Sodium	16.0		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	392		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	392		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	966		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 310-277140-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.32		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.308		0.200		mg/L	1		9056A	Total/NA
Sulfate	25.3		1.00		mg/L	1		9056A	Total/NA
Barium	0.148		0.00200		mg/L	1		6020B	Total/NA
Boron	0.225		0.100		mg/L	1		6020B	Total/NA
Calcium	97.7		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0290		0.0100		mg/L	1		6020B	Total/NA
Magnesium	36.7		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0252		0.0100		mg/L	1		6020B	Total/NA
Potassium	3.32		0.500		mg/L	1		6020B	Total/NA
Sodium	19.7		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	358		5.00		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-21 (Continued) — Lab Sample ID: 310-277140-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	358		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	352		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2A — Lab Sample ID: 310-277140-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	70.1		1.00		mg/L	1		9056A	Total/NA
Nitrate as N	0.237		0.200		mg/L	1		9056A	Total/NA
Fluoride	0.231		0.200		mg/L	1		9056A	Total/NA
Sulfate	206		50.0		mg/L	50		9056A	Total/NA
Barium	0.0635		0.00200		mg/L	1		6020B	Total/NA
Calcium	158		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0177		0.0100		mg/L	1		6020B	Total/NA
Magnesium	52.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0308		0.0100		mg/L	1		6020B	Total/NA
Potassium	5.25		0.500		mg/L	1		6020B	Total/NA
Sodium	29.1		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	328		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	328		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	684		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3L — Lab Sample ID: 310-277140-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.8		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.329		0.200		mg/L	1		9056A	Total/NA
Sulfate	53.0		1.00		mg/L	1		9056A	Total/NA
Barium	0.0733		0.00200		mg/L	1		6020B	Total/NA
Boron	0.230		0.100		mg/L	1		6020B	Total/NA
Calcium	103		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000886		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0315		0.0100		mg/L	1		6020B	Total/NA
Magnesium	43.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.187		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.41		0.500		mg/L	1		6020B	Total/NA
Sodium	23.4		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	356		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	356		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	392		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 310-277140-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1360		50.0		mg/L	50		9056A	Total/NA
Fluoride	1.67		0.200		mg/L	1		9056A	Total/NA
Sulfate	2480		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.0229		0.00200		mg/L	1		6020B	Total/NA
Molybdenum	0.177		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00768		0.00500		mg/L	1		6020B	Total/NA
Potassium	3500		50.0		mg/L	100		6020B	Total/NA
Sodium	302		100		mg/L	100		6020B	Total/NA
Total Phosphorus as P	0.251		0.100		mg/L	1		365.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-11 (Continued) — Lab Sample ID: 310-277140-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	1370		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	42.0		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1330		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8800		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Q-Sump — Lab Sample ID: 310-277140-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	125		50.0		mg/L	50		9056A	Total/NA
Nitrate as N	1.83		0.200		mg/L	1		9056A	Total/NA
Fluoride	0.374		0.200		mg/L	1		9056A	Total/NA
Sulfate	960		50.0		mg/L	50		9056A	Total/NA
Barium	0.0196		0.00200		mg/L	1		6020B	Total/NA
Boron	0.562		0.100		mg/L	1		6020B	Total/NA
Calcium	237		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0491		0.0100		mg/L	1		6020B	Total/NA
Magnesium	115		2.00		mg/L	4		6020B	Total/NA
Manganese	0.0327		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00807		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00631		0.00500		mg/L	1		6020B	Total/NA
Potassium	106		2.00		mg/L	4		6020B	Total/NA
Sodium	43.8		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	356		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	168		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1600		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Dupe — Lab Sample ID: 310-277140-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.39		1.00		mg/L	1		9056A	Total/NA
Sulfate	46.2		1.00		mg/L	1		9056A	Total/NA
Barium	0.118		0.00200		mg/L	1		6020B	Total/NA
Boron	0.280		0.100		mg/L	1		6020B	Total/NA
Calcium	92.1		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.0310		0.000500		mg/L	1		6020B	Total/NA
Copper	0.00904		0.00500		mg/L	1		6020B	Total/NA
Lithium	0.0325		0.0100		mg/L	1		6020B	Total/NA
Magnesium	39.6		0.500		mg/L	1		6020B	Total/NA
Manganese	0.277		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.0123		0.00500		mg/L	1		6020B	Total/NA
Potassium	4.48		0.500		mg/L	1		6020B	Total/NA
Sodium	22.6		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.123		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	376		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	376		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	386		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 310-277140-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	130		50.0		mg/L	50		9056A	Total/NA
Fluoride	0.277		0.200		mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-16 (Continued) — Lab Sample ID: 310-277140-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	664		50.0		mg/L	50		9056A	Total/NA
Barium	0.0589		0.00200		mg/L	1		6020B	Total/NA
Boron	0.412		0.100		mg/L	1		6020B	Total/NA
Calcium	170		0.500		mg/L	1		6020B	Total/NA
Lead	0.000631		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0827		0.0100		mg/L	1		6020B	Total/NA
Magnesium	89.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0763		0.0100		mg/L	1		6020B	Total/NA
Potassium	195		2.00		mg/L	4		6020B	Total/NA
Sodium	81.6		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	301		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	301		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1150		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16L — Lab Sample ID: 310-277140-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.14		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.305		0.200		mg/L	1		9056A	Total/NA
Sulfate	30.9		1.00		mg/L	1		9056A	Total/NA
Barium	0.0698		0.00200		mg/L	1		6020B	Total/NA
Boron	0.274		0.100		mg/L	1		6020B	Total/NA
Calcium	74.3		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0251		0.0100		mg/L	1		6020B	Total/NA
Magnesium	33.0		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0796		0.0100		mg/L	1		6020B	Total/NA
Potassium	3.76		0.500		mg/L	1		6020B	Total/NA
Sodium	13.8		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	294		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	294		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	304		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 310-277140-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	585		50.0		mg/L	50		9056A	Total/NA
Nitrate as N	1.93		0.200		mg/L	1		9056A	Total/NA
Fluoride	0.657		0.200		mg/L	1		9056A	Total/NA
Sulfate	2940		50.0		mg/L	50		9056A	Total/NA
Barium	0.0367		0.00200		mg/L	1		6020B	Total/NA
Boron	0.264		0.100		mg/L	1		6020B	Total/NA
Calcium	218		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00245		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.256		0.0100		mg/L	1		6020B	Total/NA
Magnesium	123		2.00		mg/L	4		6020B	Total/NA
Manganese	0.270		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0970		0.00200		mg/L	1		6020B	Total/NA
Potassium	1720		14.0		mg/L	28		6020B	Total/NA
Sodium	428		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	245		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	245		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6170		250		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-13 — Lab Sample ID: 310-277140-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	126		50.0		mg/L	50		9056A	Total/NA
Nitrate as N	0.314		0.200		mg/L	1		9056A	Total/NA
Fluoride	0.443		0.200		mg/L	1		9056A	Total/NA
Sulfate	56.6		1.00		mg/L	1		9056A	Total/NA
Barium	0.0869		0.00200		mg/L	1		6020B	Total/NA
Boron	0.455		0.100		mg/L	1		6020B	Total/NA
Calcium	92.9		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00122		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000725		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0390		0.0100		mg/L	1		6020B	Total/NA
Magnesium	41.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.466		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00426		0.00200		mg/L	1		6020B	Total/NA
Potassium	6.51		0.500		mg/L	1		6020B	Total/NA
Sodium	97.7		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	349		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	349		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	582		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-277140-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26.3		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.633		0.200		mg/L	1		9056A	Total/NA
Sulfate	143		50.0		mg/L	50		9056A	Total/NA
Barium	0.0567		0.00200		mg/L	1		6020B	Total/NA
Boron	0.936		0.100		mg/L	1		6020B	Total/NA
Calcium	97.0		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000763		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000688		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0603		0.0100		mg/L	1		6020B	Total/NA
Magnesium	56.6		0.500		mg/L	1		6020B	Total/NA
Manganese	0.117		0.0100		mg/L	1		6020B	Total/NA
Potassium	9.41		0.500		mg/L	1		6020B	Total/NA
Sodium	37.7		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	369		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	369		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	574		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 310-277140-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.14		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.354		0.200		mg/L	1		9056A	Total/NA
Sulfate	37.9		1.00		mg/L	1		9056A	Total/NA
Barium	0.0643		0.00200		mg/L	1		6020B	Total/NA
Boron	0.400		0.100		mg/L	1		6020B	Total/NA
Calcium	76.4		0.500		mg/L	1		6020B	Total/NA
Lead	0.00103		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0357		0.0100		mg/L	1		6020B	Total/NA
Magnesium	37.9		0.500		mg/L	1		6020B	Total/NA
Potassium	5.88		0.500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-20 (Continued)

Lab Sample ID: 310-277140-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	18.1		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.110		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	332		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	332		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	340		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: L-Sump

Date Collected: 03/18/24 12:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<10.0	*+	10.0		mg/L			03/29/24 11:36	10
Chloride	**6910**		100		mg/L			03/22/24 09:43	100
Nitrate as N	**2.29**	**H**	0.200		mg/L			03/20/24 18:10	1
Fluoride	**0.286**		0.200		mg/L			03/20/24 18:10	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 18:10	1
Sulfate	**4000**		50.0		mg/L			03/21/24 17:53	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0800**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:19	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:19	1
Barium	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:21	200
Beryllium	<0.200		0.200		mg/L		03/21/24 10:00	03/26/24 14:21	200
Boron	<20.0		20.0		mg/L		03/21/24 10:00	03/26/24 14:21	200
Calcium	<100		100		mg/L		03/21/24 10:00	03/26/24 14:21	200
Chromium	**0.602**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:19	1
Cobalt	**0.00420**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:19	1
Copper	**0.0436**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:19	1
Lead	<0.100		0.100		mg/L		03/21/24 10:00	03/26/24 14:21	200
Lithium	**1.60**		0.0100		mg/L		03/21/24 10:00	03/25/24 13:19	1
Magnesium	<100		100		mg/L		03/21/24 10:00	03/26/24 14:21	200
Manganese	<2.00		2.00		mg/L		03/21/24 10:00	03/26/24 14:21	200
Molybdenum	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:21	200
Nickel	**0.0368**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:19	1
Potassium	**8320**		100		mg/L		03/21/24 10:00	03/26/24 14:21	200
Selenium	**0.367**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:19	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:19	1
Sodium	**474**		200		mg/L		03/21/24 10:00	03/26/24 14:21	200
Thallium	<0.200	F1	0.200		mg/L		03/21/24 10:00	03/26/24 14:21	200
Vanadium	**0.117**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:19	1
Zinc	<4.00		4.00		mg/L		03/21/24 10:00	03/26/24 14:21	200

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.250**	**F1**	0.100		mg/L		03/25/24 09:36	03/25/24 18:38	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1390**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**492**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**22300**		2500		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: LL-1

Date Collected: 03/18/24 12:25
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 16:58	1
Chloride	**1660**		50.0		mg/L			03/21/24 17:26	50
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 16:39	1
Fluoride	**0.227**		0.200		mg/L			03/20/24 16:39	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 16:39	1
Sulfate	**20.8**		1.00		mg/L			03/20/24 16:39	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00300**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:33	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:33	1
Barium	**0.175**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:33	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:33	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/25/24 13:33	1
Calcium	**593**		50.0		mg/L		03/21/24 10:00	03/26/24 14:32	100
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:33	1
Cobalt	**0.000899**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:33	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:33	1
Lead	**0.101**		0.0500		mg/L		03/21/24 10:00	03/26/24 14:32	100
Lithium	**1.71**		1.00		mg/L		03/21/24 10:00	03/26/24 14:32	100
Magnesium	<50.0		50.0		mg/L		03/21/24 10:00	03/26/24 14:32	100
Manganese	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 14:32	100
Molybdenum	<0.200		0.200		mg/L		03/21/24 10:00	03/26/24 14:32	100
Nickel	**0.0226**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:33	1
Potassium	**3580**		50.0		mg/L		03/21/24 10:00	03/26/24 14:32	100
Selenium	**0.0563**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:33	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:33	1
Sodium	**104**		100		mg/L		03/21/24 10:00	03/26/24 14:32	100
Thallium	<0.100		0.100		mg/L		03/21/24 10:00	03/26/24 14:32	100
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:33	1
Zinc	<2.00		2.00		mg/L		03/21/24 10:00	03/26/24 14:32	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/24 09:19	03/22/24 23:08	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**3020**		25.0		mg/L			03/25/24 10:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<25.0		25.0		mg/L			03/25/24 10:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**772**		25.0		mg/L			03/25/24 10:47	1
Total Dissolved Solids (SM 2540C)	**9100**		2500		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: LL-2

Date Collected: 03/18/24 13:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 17:18	1
Chloride	**2660**		50.0		mg/L			03/21/24 18:32	50
Nitrate as N	**0.341**	**H**	0.200		mg/L			03/20/24 19:29	1
Fluoride	<0.200		0.200		mg/L			03/20/24 19:29	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 19:29	1
Sulfate	**1440**		50.0		mg/L			03/21/24 18:32	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:35	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:35	1
Barium	**0.112**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:35	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:35	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/25/24 13:35	1
Calcium	**1150**		10.0		mg/L		03/21/24 10:00	03/26/24 14:34	20
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:35	1
Cobalt	**0.00698**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:35	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:35	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 13:35	1
Lithium	**0.0670**		0.0100		mg/L		03/21/24 10:00	03/25/24 13:35	1
Magnesium	**250**		10.0		mg/L		03/21/24 10:00	03/26/24 14:34	20
Manganese	**37.3**		0.200		mg/L		03/21/24 10:00	03/26/24 14:34	20
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:35	1
Nickel	**0.0449**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:35	1
Potassium	**710**		10.0		mg/L		03/21/24 10:00	03/26/24 14:34	20
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:35	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:35	1
Sodium	**241**		20.0		mg/L		03/21/24 10:00	03/26/24 14:34	20
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:35	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:35	1
Zinc	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:34	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:39	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**351**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**351**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**6000**		2500		mg/L			03/20/24 20:05	1

Client Sample ID: UL-2R

Date Collected: 03/18/24 13:15
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-4

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 17:38	1
Chloride	**679**		50.0		mg/L			03/21/24 18:45	50
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 19:42	1
Fluoride	<0.200		0.200		mg/L			03/20/24 19:42	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 19:42	1
Sulfate	**335**		50.0		mg/L			03/21/24 18:45	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0322**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:38	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:38	1
Barium	**0.587**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:38	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:38	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/25/24 13:38	1
Calcium	**734**		10.0		mg/L		03/21/24 10:00	03/26/24 14:36	20
Chromium	**0.0489**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:38	1
Cobalt	**0.0100**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:38	1
Copper	**0.0421**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:38	1
Lead	**0.0240**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:38	1
Lithium	**0.262**		0.0100		mg/L		03/21/24 10:00	03/25/24 13:38	1
Magnesium	**36.0**		10.0		mg/L		03/21/24 10:00	03/26/24 14:36	20
Manganese	**1.51**		0.200		mg/L		03/21/24 10:00	03/26/24 14:36	20
Molybdenum	**0.0194**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:38	1
Nickel	**0.0502**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:38	1
Potassium	**1120**		10.0		mg/L		03/21/24 10:00	03/26/24 14:36	20
Selenium	**0.0138**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:38	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:38	1
Sodium	**85.1**		20.0		mg/L		03/21/24 10:00	03/26/24 14:36	20
Thallium	**0.00614**		0.00100		mg/L		03/21/24 10:00	03/25/24 13:38	1
Vanadium	**0.0584**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:38	1
Zinc	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:36	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.706**		0.100		mg/L		03/25/24 09:36	03/25/24 18:40	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1220**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**77.0**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**3200**		2500		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: LL-3

Date Collected: 03/18/24 13:45
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<10.0	*+	10.0		mg/L			03/29/24 11:56	10
Chloride	**10700**		200		mg/L			03/22/24 16:55	200
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 20:21	1
Fluoride	<0.200		0.200		mg/L			03/20/24 20:21	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 20:21	1
Sulfate	**10700**		200		mg/L			03/22/24 16:55	200

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:40	200
Antimony	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:40	200
Barium	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:40	200
Beryllium	<0.200		0.200		mg/L		03/21/24 10:00	03/26/24 14:40	200
Boron	<20.0		20.0		mg/L		03/21/24 10:00	03/26/24 14:40	200
Calcium	<100		100		mg/L		03/21/24 10:00	03/26/24 14:40	200
Chromium	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 14:40	200
Cobalt	<0.100		0.100		mg/L		03/21/24 10:00	03/26/24 14:40	200
Copper	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 14:40	200
Lead	<0.100		0.100		mg/L		03/21/24 10:00	03/26/24 14:40	200
Lithium	<2.00		2.00		mg/L		03/21/24 10:00	03/26/24 14:40	200
Magnesium	<100		100		mg/L		03/21/24 10:00	03/26/24 14:40	200
Manganese	<2.00		2.00		mg/L		03/21/24 10:00	03/26/24 14:40	200
Molybdenum	<0.400		0.400		mg/L		03/21/24 10:00	03/26/24 14:40	200
Nickel	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 14:40	200
Potassium	**14000**		100		mg/L		03/21/24 10:00	03/26/24 14:40	200
Selenium	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 14:40	200
Silver	<0.200		0.200		mg/L		03/21/24 10:00	03/26/24 14:40	200
Sodium	**814**		200		mg/L		03/21/24 10:00	03/26/24 14:40	200
Thallium	<0.200		0.200		mg/L		03/21/24 10:00	03/26/24 14:40	200
Vanadium	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 14:40	200
Zinc	<4.00		4.00		mg/L		03/21/24 10:00	03/26/24 14:40	200

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**7.35**		1.00		mg/L		03/25/24 09:36	03/25/24 19:07	10
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1040**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**680**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**46500**		2500		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: UL-3R

Date Collected: 03/18/24 13:55
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 18:57	1
Chloride	**121**		50.0		mg/L			03/21/24 19:50	50
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 20:47	1
Fluoride	<0.200		0.200		mg/L			03/20/24 20:47	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 20:47	1
Sulfate	**43.7**		5.00		mg/L			03/25/24 14:03	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:51	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:51	1
Barium	**0.544**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:51	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:51	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/25/24 13:51	1
Calcium	**493**		2.00		mg/L		03/21/24 10:00	03/26/24 14:51	4
Chromium	**0.0119**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:51	1
Cobalt	**0.00578**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:51	1
Copper	**0.0495**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:51	1
Lead	**0.00493**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:51	1
Lithium	**0.0129**		0.0100		mg/L		03/21/24 10:00	03/25/24 13:51	1
Magnesium	**5.51**		2.00		mg/L		03/21/24 10:00	03/26/24 14:51	4
Manganese	**0.308**		0.0400		mg/L		03/21/24 10:00	03/26/24 14:51	4
Molybdenum	**0.0101**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:51	1
Nickel	**0.0317**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:51	1
Potassium	**183**		2.00		mg/L		03/21/24 10:00	03/26/24 14:51	4
Selenium	**0.00795**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:51	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:51	1
Sodium	**15.5**		4.00		mg/L		03/21/24 10:00	03/26/24 14:51	4
Thallium	**0.00195**		0.00100		mg/L		03/21/24 10:00	03/25/24 13:51	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:51	1
Zinc	<0.0800		0.0800		mg/L		03/21/24 10:00	03/26/24 14:51	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:41	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1270**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**61.0**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**2600**		2500		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-12

Date Collected: 03/18/24 14:25
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 19:17	1
Chloride	**84.6**		1.00		mg/L			03/20/24 21:53	1
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 21:53	1
Fluoride	**0.661**		0.200		mg/L			03/20/24 21:53	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 21:53	1
Sulfate	**201**		50.0		mg/L			03/21/24 20:17	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:53	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:53	1
Barium	**0.0793**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:53	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:53	1
Boron	**0.884**		0.100		mg/L		03/21/24 10:00	03/25/24 13:53	1
Calcium	**112**		0.500		mg/L		03/21/24 10:00	03/26/24 14:53	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:53	1
Cobalt	**0.00394**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:53	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:53	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 13:53	1
Lithium	**0.0663**		0.0100		mg/L		03/21/24 10:00	03/25/24 13:53	1
Magnesium	**65.1**		0.500		mg/L		03/21/24 10:00	03/26/24 14:53	1
Manganese	**1.66**		0.0100		mg/L		03/21/24 10:00	03/26/24 14:53	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:53	1
Nickel	**0.00816**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:53	1
Potassium	**9.41**		0.500		mg/L		03/21/24 10:00	03/26/24 14:53	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:53	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:53	1
Sodium	**58.9**		1.00		mg/L		03/21/24 10:00	03/26/24 14:53	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:53	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:53	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/26/24 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:41	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**336**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**336**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**724**		50.0		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-5

Date Collected: 03/18/24 14:50
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 19:37	1
Chloride	**490**		50.0		mg/L			03/21/24 20:43	50
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 22:19	1
Fluoride	**0.343**		0.200		mg/L			03/20/24 22:19	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 22:19	1
Sulfate	**917**		50.0		mg/L			03/21/24 20:43	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:56	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:56	1
Barium	**0.0308**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:56	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:56	1
Boron	**0.178**		0.100		mg/L		03/21/24 10:00	03/25/24 13:56	1
Calcium	**371**		2.00		mg/L		03/21/24 10:00	03/26/24 14:55	4
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:56	1
Cobalt	**0.000675**		0.000500		mg/L		03/21/24 10:00	03/25/24 13:56	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:56	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 13:56	1
Lithium	**0.0804**		0.0100		mg/L		03/21/24 10:00	03/25/24 13:56	1
Magnesium	**113**		2.00		mg/L		03/21/24 10:00	03/26/24 14:55	4
Manganese	**0.124**		0.0400		mg/L		03/21/24 10:00	03/26/24 14:55	4
Molybdenum	**0.00274**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:56	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:56	1
Potassium	**220**		2.00		mg/L		03/21/24 10:00	03/26/24 14:55	4
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:56	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:56	1
Sodium	**48.7**		4.00		mg/L		03/21/24 10:00	03/26/24 14:55	4
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:56	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:56	1
Zinc	<0.0800		0.0800		mg/L		03/21/24 10:00	03/26/24 14:55	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:42	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**331**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**331**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**2460**		250		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-4

Date Collected: 03/18/24 15:40
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 19:57	1
Chloride	**1160**		50.0		mg/L			03/21/24 21:09	50
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 22:58	1
Fluoride	**1.49**		0.200		mg/L			03/20/24 22:58	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 22:58	1
Sulfate	**1970**		50.0		mg/L			03/21/24 21:09	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0312**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:59	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:59	1
Barium	**0.00778**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:59	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:59	1
Boron	**0.295**		0.100		mg/L		03/21/24 10:00	03/25/24 13:59	1
Calcium	<40.0		40.0		mg/L		03/21/24 10:00	03/26/24 14:58	80
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:59	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 13:59	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:59	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 13:59	1
Lithium	**0.546**		0.0100		mg/L		03/21/24 10:00	03/25/24 13:59	1
Magnesium	<40.0		40.0		mg/L		03/21/24 10:00	03/26/24 14:58	80
Manganese	<0.800		0.800		mg/L		03/21/24 10:00	03/26/24 14:58	80
Molybdenum	**0.143**		0.00200		mg/L		03/21/24 10:00	03/25/24 13:59	1
Nickel	**0.00747**		0.00500		mg/L		03/21/24 10:00	03/25/24 13:59	1
Potassium	**2720**		40.0		mg/L		03/21/24 10:00	03/26/24 14:58	80
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:59	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:59	1
Sodium	**224**		80.0		mg/L		03/21/24 10:00	03/26/24 14:58	80
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:59	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:59	1
Zinc	<1.60		1.60		mg/L		03/21/24 10:00	03/26/24 14:58	80

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.265**		0.100		mg/L		03/25/24 09:36	03/25/24 18:43	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1320**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**31.9**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1290**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**7840**		500		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-4L

Date Collected: 03/18/24 16:00
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-10

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 20:16	1
Chloride	**1560**		50.0		mg/L			03/21/24 21:22	50
Nitrate as N	**0.307**	**H**	0.200		mg/L			03/20/24 23:11	1
Fluoride	**2.23**		0.200		mg/L			03/20/24 23:11	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 23:11	1
Sulfate	**3040**		50.0		mg/L			03/21/24 21:22	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0102**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:01	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:01	1
Barium	**0.0151**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:01	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:01	1
Boron	**0.403**		0.100		mg/L		03/21/24 10:00	03/25/24 14:01	1
Calcium	<50.0		50.0		mg/L		03/21/24 10:00	03/26/24 15:00	100
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:01	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:01	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:01	1
Lead	**0.000930**		0.000500		mg/L		03/21/24 10:00	03/25/24 14:01	1
Lithium	**0.767**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:01	1
Magnesium	<50.0		50.0		mg/L		03/21/24 10:00	03/26/24 15:00	100
Manganese	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 15:00	100
Molybdenum	**0.237**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:01	1
Nickel	**0.00601**		0.00500		mg/L		03/21/24 10:00	03/25/24 14:01	1
Potassium	**3610**		50.0		mg/L		03/21/24 10:00	03/26/24 15:00	100
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:01	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:01	1
Sodium	**329**		100		mg/L		03/21/24 10:00	03/26/24 15:00	100
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:01	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:01	1
Zinc	<2.00		2.00		mg/L		03/21/24 10:00	03/26/24 15:00	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.213**		0.100		mg/L		03/25/24 09:36	03/25/24 18:43	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1420**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**56.6**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1370**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**10700**		500		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-18

Date Collected: 03/18/24 16:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-11

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 20:36	1
Chloride	**1600**		50.0		mg/L			03/21/24 21:35	50
Nitrate as N	<0.200	H	0.200		mg/L			03/20/24 23:24	1
Fluoride	**2.06**		0.200		mg/L			03/20/24 23:24	1
Nitrite as N	<0.200	H	0.200		mg/L			03/20/24 23:24	1
Sulfate	**3170**		50.0		mg/L			03/21/24 21:35	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00814**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:03	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:03	1
Barium	**0.0127**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:03	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:03	1
Boron	**0.404**		0.100		mg/L		03/21/24 10:00	03/25/24 14:03	1
Calcium	<50.0		50.0		mg/L		03/21/24 10:00	03/26/24 15:02	100
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:03	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:03	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:03	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:03	1
Lithium	**0.740**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:03	1
Magnesium	<50.0		50.0		mg/L		03/21/24 10:00	03/26/24 15:02	100
Manganese	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 15:02	100
Molybdenum	**0.211**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:03	1
Nickel	**0.00569**		0.00500		mg/L		03/21/24 10:00	03/25/24 14:03	1
Potassium	**3920**		50.0		mg/L		03/21/24 10:00	03/26/24 15:02	100
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:03	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:03	1
Sodium	**358**		100		mg/L		03/21/24 10:00	03/26/24 15:02	100
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:03	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:03	1
Zinc	<2.00		2.00		mg/L		03/21/24 10:00	03/26/24 15:02	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.187**		0.100		mg/L		03/25/24 09:36	03/25/24 18:44	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1450**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**72.8**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1380**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**11000**		500		mg/L			03/20/24 20:05	1

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-7

Date Collected: 03/19/24 08:45
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 20:56	1
Chloride	**2.22**		1.00		mg/L			03/20/24 14:54	1
Nitrate as N	**0.493**		0.200		mg/L			03/20/24 14:54	1
Fluoride	**0.203**		0.200		mg/L			03/20/24 14:54	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 14:54	1
Sulfate	**36.5**		1.00		mg/L			03/20/24 14:54	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:08	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:08	1
Barium	**0.159**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:08	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:08	1
Boron	**0.205**		0.100		mg/L		03/21/24 10:00	03/25/24 14:08	1
Calcium	**81.3**		0.500		mg/L		03/21/24 10:00	03/26/24 15:07	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:08	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:08	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:08	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:08	1
Lithium	**0.0308**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:08	1
Magnesium	**45.3**		0.500		mg/L		03/21/24 10:00	03/26/24 15:07	1
Manganese	**0.145**		0.0100		mg/L		03/21/24 10:00	03/26/24 15:07	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:08	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:08	1
Potassium	**5.18**		0.500		mg/L		03/21/24 10:00	03/26/24 15:07	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:08	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:08	1
Sodium	**19.6**		1.00		mg/L		03/21/24 10:00	03/26/24 15:07	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:08	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:08	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/26/24 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:44	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**365**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**365**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**398**		50.0		mg/L			03/20/24 20:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-19

Date Collected: 03/19/24 09:25
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-13

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 21:16	1
Chloride	**8.42**		1.00		mg/L			03/20/24 15:07	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 15:07	1
Fluoride	<0.200		0.200		mg/L			03/20/24 15:07	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 15:07	1
Sulfate	**46.2**		1.00		mg/L			03/20/24 15:07	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:10	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:10	1
Barium	**0.137**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:10	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:10	1
Boron	**0.274**		0.100		mg/L		03/21/24 10:00	03/25/24 14:10	1
Calcium	**102**		0.500		mg/L		03/21/24 10:00	03/26/24 15:09	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:10	1
Cobalt	**0.0709**		0.000500		mg/L		03/21/24 10:00	03/25/24 14:10	1
Copper	**0.0135**		0.00500		mg/L		03/21/24 10:00	03/25/24 14:10	1
Lead	**0.000992**		0.000500		mg/L		03/21/24 10:00	03/25/24 14:10	1
Lithium	**0.0356**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:10	1
Magnesium	**42.5**		0.500		mg/L		03/21/24 10:00	03/26/24 15:09	1
Manganese	**0.669**		0.0100		mg/L		03/21/24 10:00	03/26/24 15:09	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:10	1
Nickel	**0.0248**		0.00500		mg/L		03/21/24 10:00	03/25/24 14:10	1
Potassium	**4.83**		0.500		mg/L		03/21/24 10:00	03/26/24 15:09	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:10	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:10	1
Sodium	**24.6**		1.00		mg/L		03/21/24 10:00	03/26/24 15:09	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:10	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:10	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/26/24 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.240**		0.100		mg/L		03/25/24 09:36	03/25/24 18:44	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**374**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**374**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**382**		50.0		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-1A

Date Collected: 03/19/24 10:15
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-14

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 21:36	1
Chloride	**2.51**		1.00		mg/L			03/20/24 16:13	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 16:13	1
Fluoride	**0.930**		0.200		mg/L			03/20/24 16:13	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 16:13	1
Sulfate	**21.6**		1.00		mg/L			03/20/24 16:13	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:13	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:13	1
Barium	**0.130**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:13	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:13	1
Boron	**1.30**		0.100		mg/L		03/21/24 10:00	03/25/24 14:13	1
Calcium	**64.7**		0.500		mg/L		03/21/24 10:00	03/26/24 15:11	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:13	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:13	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:13	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:13	1
Lithium	**0.107**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:13	1
Magnesium	**41.4**		0.500		mg/L		03/21/24 10:00	03/26/24 15:11	1
Manganese	**0.0213**		0.0100		mg/L		03/21/24 10:00	03/26/24 15:11	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:13	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:13	1
Potassium	**11.1**		0.500		mg/L		03/21/24 10:00	03/26/24 15:11	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:13	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:13	1
Sodium	**39.9**		1.00		mg/L		03/21/24 10:00	03/26/24 15:11	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:13	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:13	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/26/24 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:45	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**388**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**388**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**390**		50.0		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-1B

Date Collected: 03/19/24 10:00
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-15

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 23:35	1
Chloride	**19.6**		1.00		mg/L			03/20/24 15:33	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 15:33	1
Fluoride	<0.200		0.200		mg/L			03/20/24 15:33	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 15:33	1
Sulfate	**389**		50.0		mg/L			03/21/24 17:13	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:24	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:24	1
Barium	**0.0736**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:24	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:24	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/25/24 14:24	1
Calcium	**218**		0.500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Lithium	<0.0100		0.0100		mg/L		03/21/24 10:00	03/25/24 14:24	1
Magnesium	**77.3**		0.500		mg/L		03/21/24 10:00	03/26/24 15:22	1
Manganese	**0.0708**		0.0100		mg/L		03/21/24 10:00	03/26/24 15:22	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:24	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Potassium	**7.75**		0.500		mg/L		03/21/24 10:00	03/26/24 15:22	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:24	1
Sodium	**16.0**		1.00		mg/L		03/21/24 10:00	03/26/24 15:22	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:24	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:24	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/25/24 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:45	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**392**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**392**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**966**		50.0		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-21

Date Collected: 03/19/24 11:00
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-16

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 00:34	1
Chloride	**1.32**		1.00		mg/L			03/20/24 16:25	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 16:25	1
Fluoride	**0.308**		0.200		mg/L			03/20/24 16:25	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 16:25	1
Sulfate	**25.3**		1.00		mg/L			03/20/24 16:25	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:27	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:27	1
Barium	**0.148**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:27	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:27	1
Boron	**0.225**		0.100		mg/L		03/21/24 10:00	03/25/24 14:27	1
Calcium	**97.7**		0.500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Lithium	**0.0290**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:27	1
Magnesium	**36.7**		0.500		mg/L		03/21/24 10:00	03/26/24 15:25	1
Manganese	**0.0252**		0.0100		mg/L		03/21/24 10:00	03/26/24 15:25	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:27	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Potassium	**3.32**		0.500		mg/L		03/21/24 10:00	03/26/24 15:25	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:27	1
Sodium	**19.7**		1.00		mg/L		03/21/24 10:00	03/26/24 15:25	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:27	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:27	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/25/24 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:46	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**358**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**358**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**352**		50.0		mg/L			03/22/24 12:05	1

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-2A

Date Collected: 03/19/24 11:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-17

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 00:54	1
Chloride	**70.1**		1.00		mg/L			03/20/24 16:52	1
Nitrate as N	**0.237**		0.200		mg/L			03/20/24 16:52	1
Fluoride	**0.231**		0.200		mg/L			03/20/24 16:52	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 16:52	1
Sulfate	**206**		50.0		mg/L			03/21/24 17:39	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:29	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:29	1
Barium	**0.0635**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:29	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:29	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/25/24 14:29	1
Calcium	**158**		0.500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Lithium	**0.0177**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:29	1
Magnesium	**52.9**		0.500		mg/L		03/21/24 10:00	03/26/24 15:27	1
Manganese	**0.0308**		0.0100		mg/L		03/21/24 10:00	03/26/24 15:27	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:29	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Potassium	**5.25**		0.500		mg/L		03/21/24 10:00	03/26/24 15:27	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:29	1
Sodium	**29.1**		1.00		mg/L		03/21/24 10:00	03/26/24 15:27	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:29	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:29	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/25/24 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:46	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**328**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**328**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**684**		50.0		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-3L

Date Collected: 03/19/24 12:00
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-18

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 01:14	1
Chloride	**11.8**		1.00		mg/L			03/20/24 17:31	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 17:31	1
Fluoride	**0.329**		0.200		mg/L			03/20/24 17:31	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 17:31	1
Sulfate	**53.0**		1.00		mg/L			03/20/24 17:31	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:31	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:31	1
Barium	**0.0733**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:31	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:31	1
Boron	**0.230**		0.100		mg/L		03/21/24 10:00	03/25/24 14:31	1
Calcium	**103**		0.500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Cobalt	**0.000886**		0.000500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Lithium	**0.0315**		0.0100		mg/L		03/21/24 10:00	03/25/24 14:31	1
Magnesium	**43.9**		0.500		mg/L		03/21/24 10:00	03/26/24 15:29	1
Manganese	**0.187**		0.0100		mg/L		03/21/24 10:00	03/26/24 15:29	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:31	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Potassium	**4.41**		0.500		mg/L		03/21/24 10:00	03/26/24 15:29	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:31	1
Sodium	**23.4**		1.00		mg/L		03/21/24 10:00	03/26/24 15:29	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:31	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:31	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/25/24 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:47	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**356**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**356**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**392**		50.0		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-11

Date Collected: 03/19/24 12:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-19

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 01:33	1
Chloride	**1360**		50.0		mg/L			03/21/24 18:06	50
Nitrate as N	<0.200		0.200		mg/L			03/20/24 19:03	1
Fluoride	**1.67**		0.200		mg/L			03/20/24 19:03	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 19:03	1
Sulfate	**2480**		50.0		mg/L			03/21/24 18:06	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0229**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:33	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 14:33	1
Barium	<0.200		0.200		mg/L		03/21/24 10:00	03/26/24 15:31	100
Beryllium	<0.100		0.100		mg/L		03/21/24 10:00	03/26/24 15:31	100
Boron	<10.0		10.0		mg/L		03/21/24 10:00	03/26/24 15:31	100
Calcium	<50.0		50.0		mg/L		03/21/24 10:00	03/26/24 15:31	100
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:33	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:33	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:33	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 14:33	1
Lithium	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 15:31	100
Magnesium	<50.0		50.0		mg/L		03/21/24 10:00	03/26/24 15:31	100
Manganese	<1.00		1.00		mg/L		03/21/24 10:00	03/26/24 15:31	100
Molybdenum	**0.177**		0.00200		mg/L		03/21/24 10:00	03/25/24 14:33	1
Nickel	**0.00768**		0.00500		mg/L		03/21/24 10:00	03/25/24 14:33	1
Potassium	**3500**		50.0		mg/L		03/21/24 10:00	03/26/24 15:31	100
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:33	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:33	1
Sodium	**302**		100		mg/L		03/21/24 10:00	03/26/24 15:31	100
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 14:33	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 14:33	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/25/24 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.251**		0.100		mg/L		03/25/24 09:36	03/25/24 18:48	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1370**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**42.0**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1330**		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**8800**		250		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: Q-Sump

Date Collected: 03/19/24 13:00
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-20

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 02:33	1
Chloride	**125**		50.0		mg/L			03/21/24 18:19	50
Nitrate as N	**1.83**		0.200		mg/L			03/20/24 19:16	1
Fluoride	**0.374**		0.200		mg/L			03/20/24 19:16	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 19:16	1
Sulfate	**960**		50.0		mg/L			03/21/24 18:19	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:15	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:15	1
Barium	**0.0196**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:15	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:15	1
Boron	**0.562**		0.100		mg/L		03/21/24 10:00	03/22/24 19:15	1
Calcium	**237**		0.500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Lithium	**0.0491**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:15	1
Magnesium	**115**		2.00		mg/L		03/21/24 10:00	03/25/24 12:54	4
Manganese	**0.0327**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:15	1
Molybdenum	**0.00807**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:15	1
Nickel	**0.00631**		0.00500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Potassium	**106**		2.00		mg/L		03/21/24 10:00	03/25/24 12:54	4
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:15	1
Sodium	**43.8**		1.00		mg/L		03/21/24 10:00	03/22/24 19:15	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:15	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:15	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:48	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**356**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**168**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**1600**		250		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: Dupe

Date Collected: 03/19/24 09:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-21

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 02:53	1
Chloride	**8.39**		1.00		mg/L			03/20/24 15:20	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 15:20	1
Fluoride	<0.200		0.200		mg/L			03/20/24 15:20	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 15:20	1
Sulfate	**46.2**		1.00		mg/L			03/20/24 15:20	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:20	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:20	1
Barium	**0.118**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:20	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:20	1
Boron	**0.280**		0.100		mg/L		03/21/24 10:00	03/22/24 19:20	1
Calcium	**92.1**		0.500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Cobalt	**0.0310**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Copper	**0.00904**		0.00500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Lithium	**0.0325**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:20	1
Magnesium	**39.6**		0.500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Manganese	**0.277**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:20	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:20	1
Nickel	**0.0123**		0.00500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Potassium	**4.48**		0.500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:20	1
Sodium	**22.6**		1.00		mg/L		03/21/24 10:00	03/22/24 19:20	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:20	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:20	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.123**		0.100		mg/L		03/25/24 09:36	03/25/24 18:48	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**376**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**376**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**386**		50.0		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-16

Date Collected: 03/19/24 13:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-22

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 03:12	1
Chloride	**130**		50.0		mg/L			03/21/24 18:58	50
Nitrate as N	<0.200		0.200		mg/L			03/20/24 19:55	1
Fluoride	**0.277**		0.200		mg/L			03/20/24 19:55	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 19:55	1
Sulfate	**664**		50.0		mg/L			03/21/24 18:58	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:22	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:22	1
Barium	**0.0589**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:22	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:22	1
Boron	**0.412**		0.100		mg/L		03/21/24 10:00	03/22/24 19:22	1
Calcium	**170**		0.500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Lead	**0.000631**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Lithium	**0.0827**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:22	1
Magnesium	**89.3**		0.500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Manganese	**0.0763**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:22	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:22	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Potassium	**195**		2.00		mg/L		03/21/24 10:00	03/25/24 12:59	4
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:22	1
Sodium	**81.6**		1.00		mg/L		03/21/24 10:00	03/22/24 19:22	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:22	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:22	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/27/24 08:45	03/27/24 16:14	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**301**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**301**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**1150**		250		mg/L			03/22/24 12:05	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-16L

Date Collected: 03/19/24 13:35
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-23

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 03:32	1
Chloride	**1.14**		1.00		mg/L			03/20/24 20:08	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 20:08	1
Fluoride	**0.305**		0.200		mg/L			03/20/24 20:08	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 20:08	1
Sulfate	**30.9**		1.00		mg/L			03/20/24 20:08	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:24	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:24	1
Barium	**0.0698**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:24	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:24	1
Boron	**0.274**		0.100		mg/L		03/21/24 10:00	03/22/24 19:24	1
Calcium	**74.3**		0.500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Lithium	**0.0251**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:24	1
Magnesium	**33.0**		0.500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Manganese	**0.0796**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:24	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:24	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Potassium	**3.76**		0.500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:24	1
Sodium	**13.8**		1.00		mg/L		03/21/24 10:00	03/22/24 19:24	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:24	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:24	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/27/24 08:45	03/27/24 16:15	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**294**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**294**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**304**		50.0		mg/L			03/21/24 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-14

Date Collected: 03/19/24 14:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-24

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 03:52	1
Chloride	**585**		50.0		mg/L			03/21/24 20:03	50
Nitrate as N	**1.93**		0.200		mg/L			03/20/24 21:27	1
Fluoride	**0.657**		0.200		mg/L			03/20/24 21:27	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 21:27	1
Sulfate	**2940**		50.0		mg/L			03/21/24 20:03	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:26	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:26	1
Barium	**0.0367**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:26	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:26	1
Boron	**0.264**		0.100		mg/L		03/21/24 10:00	03/22/24 19:26	1
Calcium	**218**		0.500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Cobalt	**0.00245**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Lithium	**0.256**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:26	1
Magnesium	**123**		2.00		mg/L		03/21/24 10:00	03/25/24 13:01	4
Manganese	**0.270**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:26	1
Molybdenum	**0.0970**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:26	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Potassium	**1720**		14.0		mg/L		03/21/24 10:00	03/25/24 16:05	28
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:26	1
Sodium	**428**		1.00		mg/L		03/21/24 10:00	03/22/24 19:26	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:26	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:26	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/27/24 08:45	03/27/24 16:15	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**245**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**245**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**6170**		250		mg/L			03/21/24 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-13

Date Collected: 03/19/24 14:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-25

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 04:12	1
Chloride	**126**		50.0		mg/L			03/21/24 20:30	50
Nitrate as N	**0.314**		0.200		mg/L			03/20/24 22:06	1
Fluoride	**0.443**		0.200		mg/L			03/20/24 22:06	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 22:06	1
Sulfate	**56.6**		1.00		mg/L			03/20/24 22:06	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:28	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:28	1
Barium	**0.0869**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:28	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:28	1
Boron	**0.455**		0.100		mg/L		03/21/24 10:00	03/22/24 19:28	1
Calcium	**92.9**		0.500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Cobalt	**0.00122**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Lead	**0.000725**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Lithium	**0.0390**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:28	1
Magnesium	**41.3**		0.500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Manganese	**0.466**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:28	1
Molybdenum	**0.00426**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:28	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Potassium	**6.51**		0.500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:28	1
Sodium	**97.7**		1.00		mg/L		03/21/24 10:00	03/22/24 19:28	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:28	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:28	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/27/24 08:45	03/27/24 16:16	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**349**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**349**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**582**		50.0		mg/L			03/21/24 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-15

Date Collected: 03/19/24 14:55
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-26

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 04:32	1
Chloride	**26.3**		1.00		mg/L			03/20/24 22:32	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 22:32	1
Fluoride	**0.633**		0.200		mg/L			03/20/24 22:32	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 22:32	1
Sulfate	**143**		50.0		mg/L			03/21/24 20:56	50

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:31	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:31	1
Barium	**0.0567**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:31	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:31	1
Boron	**0.936**		0.100		mg/L		03/21/24 10:00	03/22/24 19:31	1
Calcium	**97.0**		0.500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Cobalt	**0.000763**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Lead	**0.000688**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Lithium	**0.0603**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:31	1
Magnesium	**56.6**		0.500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Manganese	**0.117**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:31	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:31	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Potassium	**9.41**		0.500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:31	1
Sodium	**37.7**		1.00		mg/L		03/21/24 10:00	03/22/24 19:31	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:31	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:31	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/27/24 08:45	03/27/24 16:16	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**369**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**369**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**574**		50.0		mg/L			03/21/24 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-20

Date Collected: 03/19/24 15:15
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-27

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 04:51	1
Chloride	**5.14**		1.00		mg/L			03/20/24 22:45	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 22:45	1
Fluoride	**0.354**		0.200		mg/L			03/20/24 22:45	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 22:45	1
Sulfate	**37.9**		1.00		mg/L			03/20/24 22:45	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:42	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:42	1
Barium	**0.0643**		0.00200		mg/L		03/21/24 10:00	03/22/24 19:42	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:42	1
Boron	**0.400**		0.100		mg/L		03/21/24 10:00	03/22/24 19:42	1
Calcium	**76.4**		0.500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Lead	**0.00103**		0.000500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Lithium	**0.0357**		0.0100		mg/L		03/21/24 10:00	03/22/24 19:42	1
Magnesium	**37.9**		0.500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Manganese	<0.0100		0.0100		mg/L		03/21/24 10:00	03/22/24 19:42	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 19:42	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Potassium	**5.88**		0.500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:42	1
Sodium	**18.1**		1.00		mg/L		03/21/24 10:00	03/22/24 19:42	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 19:42	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 19:42	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 19:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.110**		0.100		mg/L		03/27/24 08:45	03/27/24 16:16	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**332**		5.00		mg/L			03/22/24 08:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**332**		5.00		mg/L			03/22/24 08:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/22/24 08:48	1
Total Dissolved Solids (SM 2540C)	**340**		50.0		mg/L			03/21/24 14:24	1

Definitions/Glossary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Metals

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

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-416727/3
Matrix: Water
Analysis Batch: 416727

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			03/20/24 10:59	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 10:59	1
Fluoride	<0.200		0.200		mg/L			03/20/24 10:59	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 10:59	1
Sulfate	<1.00		1.00		mg/L			03/20/24 10:59	1

Lab Sample ID: LCS 310-416727/4
Matrix: Water
Analysis Batch: 416727

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.731		mg/L		97	90 - 110
Nitrate as N	2.00	2.072		mg/L		104	90 - 110
Fluoride	2.00	2.031		mg/L		102	90 - 110
Nitrite as N	2.00	1.968		mg/L		98	90 - 110
Sulfate	10.0	10.38		mg/L		104	90 - 110

Lab Sample ID: MB 310-416764/3
Matrix: Water
Analysis Batch: 416764

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			03/20/24 17:05	1
Nitrate as N	<0.200		0.200		mg/L			03/20/24 17:05	1
Fluoride	<0.200		0.200		mg/L			03/20/24 17:05	1
Nitrite as N	<0.200		0.200		mg/L			03/20/24 17:05	1
Sulfate	<1.00		1.00		mg/L			03/20/24 17:05	1

Lab Sample ID: LCS 310-416764/4
Matrix: Water
Analysis Batch: 416764

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.850		mg/L		99	90 - 110
Nitrate as N	2.00	2.092		mg/L		105	90 - 110
Fluoride	2.00	2.059		mg/L		103	90 - 110
Nitrite as N	2.00	2.008		mg/L		100	90 - 110
Sulfate	10.0	10.44		mg/L		104	90 - 110

Lab Sample ID: 310-277140-18 MS
Matrix: Water
Analysis Batch: 416764

Client Sample ID: MW-3L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	11.8		5.00	16.28		mg/L		89	80 - 120
Nitrate as N	<0.200		1.00	0.8804		mg/L		88	80 - 120
Fluoride	0.329		1.00	1.316		mg/L		99	80 - 120
Nitrite as N	<0.200		1.00	0.8931		mg/L		89	80 - 120
Sulfate	53.0		5.00	57.22	4	mg/L		84	80 - 120

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

Lab Sample ID: 310-277140-18 MSD
Matrix: Water
Analysis Batch: 416764

Client Sample ID: MW-3L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11.8		5.00	16.48		mg/L		93	80 - 120	1	15
Nitrate as N	<0.200		1.00	0.8921		mg/L		89	80 - 120	1	15
Fluoride	0.329		1.00	1.341		mg/L		101	80 - 120	2	15
Nitrite as N	<0.200		1.00	0.9125		mg/L		91	80 - 120	2	15
Sulfate	53.0		5.00	57.74	4	mg/L		94	80 - 120	1	15

Lab Sample ID: MB 400-666150/5
Matrix: Water
Analysis Batch: 666150

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 14:40	1

Lab Sample ID: LCS 400-666150/6
Matrix: Water
Analysis Batch: 666150

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.58	9.423		mg/L		110	90 - 110

Lab Sample ID: LCSD 400-666150/7
Matrix: Water
Analysis Batch: 666150

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.58	9.280		mg/L		108	90 - 110	2	15

Lab Sample ID: MB 400-666155/29
Matrix: Water
Analysis Batch: 666155

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/28/24 22:35	1

Lab Sample ID: LCS 400-666155/30
Matrix: Water
Analysis Batch: 666155

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.58	9.058		mg/L		106	90 - 110

Lab Sample ID: LCSD 400-666155/31
Matrix: Water
Analysis Batch: 666155

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.58	9.309		mg/L		109	90 - 110	3	15

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

Lab Sample ID: 310-277140-15 MS
Matrix: Water
Analysis Batch: 666155

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	<1.00		8.58	9.407		mg/L		110	80 - 120

Lab Sample ID: 310-277140-15 MSD
Matrix: Water
Analysis Batch: 666155

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<1.00		8.58	9.492		mg/L		111	80 - 120	1	20

Lab Sample ID: MB 400-666281/5
Matrix: Water
Analysis Batch: 666281

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			03/29/24 10:36	1

Lab Sample ID: LCS 400-666281/6
Matrix: Water
Analysis Batch: 666281

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.58	9.518	*+	mg/L		111	90 - 110

Lab Sample ID: LCSD 400-666281/7
Matrix: Water
Analysis Batch: 666281

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.58	9.218		mg/L		107	90 - 110	3	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-416517/1-A
Matrix: Water
Analysis Batch: 416833

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 18:22	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 18:22	1
Barium	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 18:22	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 18:22	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/22/24 18:22	1
Calcium	<0.500		0.500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Lithium	<0.0100		0.0100		mg/L		03/21/24 10:00	03/22/24 18:22	1
Magnesium	<0.500		0.500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Manganese	<0.0100		0.0100		mg/L		03/21/24 10:00	03/22/24 18:22	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-416517/1-A
Matrix: Water
Analysis Batch: 416833

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/22/24 18:22	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Potassium	<0.500		0.500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 18:22	1
Sodium	<1.00		1.00		mg/L		03/21/24 10:00	03/22/24 18:22	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/22/24 18:22	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/22/24 18:22	1
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/22/24 18:22	1

Lab Sample ID: LCS 310-416517/2-A
Matrix: Water
Analysis Batch: 416833

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2079		mg/L		104	80 - 120
Antimony	0.200	0.2111		mg/L		106	80 - 120
Barium	0.100	0.1039		mg/L		104	80 - 120
Beryllium	0.100	0.1014		mg/L		101	80 - 120
Boron	0.200	0.2130		mg/L		107	80 - 120
Calcium	2.00	1.781		mg/L		89	80 - 120
Chromium	0.100	0.1036		mg/L		104	80 - 120
Cobalt	0.100	0.09421		mg/L		94	80 - 120
Copper	0.200	0.2072		mg/L		104	80 - 120
Lead	0.200	0.2086		mg/L		104	80 - 120
Lithium	0.200	0.2080		mg/L		104	80 - 120
Magnesium	2.00	1.859		mg/L		93	80 - 120
Manganese	0.100	0.09581		mg/L		96	80 - 120
Molybdenum	0.200	0.2021		mg/L		101	80 - 120
Nickel	0.200	0.2092		mg/L		105	80 - 120
Potassium	2.00	1.880		mg/L		94	80 - 120
Selenium	0.400	0.3892		mg/L		97	80 - 120
Silver	0.100	0.09627		mg/L		96	80 - 120
Sodium	2.00	2.259		mg/L		113	80 - 120
Thallium	0.100	0.1087		mg/L		109	80 - 120
Vanadium	0.100	0.1023		mg/L		102	80 - 120
Zinc	0.200	0.1992		mg/L		100	80 - 120

Lab Sample ID: 310-277140-20 DU
Matrix: Water
Analysis Batch: 416833

Client Sample ID: Q-Sump
Prep Type: Total/NA
Prep Batch: 416517

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Antimony	<0.00200		<0.00200		mg/L		NC	20
Barium	0.0196		0.02027		mg/L		4	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Boron	0.562		0.5606		mg/L		0.2	20
Calcium	237		246.2		mg/L		4	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-277140-20 DU
Matrix: Water
Analysis Batch: 416833

Client Sample ID: Q-Sump
Prep Type: Total/NA
Prep Batch: 416517

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	<0.000500		<0.000500		mg/L		NC	20
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Lithium	0.0491		0.05011		mg/L		2	20
Manganese	0.0327		0.03361		mg/L		3	20
Molybdenum	0.00807		0.008185		mg/L		1	20
Nickel	0.00631		0.006781		mg/L		7	20
Selenium	<0.00500		<0.00500		mg/L		NC	20
Silver	<0.00100		<0.00100		mg/L		NC	20
Sodium	43.8		45.12		mg/L		3	20
Thallium	<0.00100		<0.00100		mg/L		NC	20
Vanadium	<0.00500		<0.00500		mg/L		NC	20
Zinc	<0.0200		<0.0200		mg/L		NC	20

Lab Sample ID: 310-277140-20 DU
Matrix: Water
Analysis Batch: 416897

Client Sample ID: Q-Sump
Prep Type: Total/NA
Prep Batch: 416517

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Magnesium	115		112.9		mg/L		2	20
Potassium	106		102.6		mg/L		3	20

Lab Sample ID: MB 310-416520/1-A
Matrix: Water
Analysis Batch: 416957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416520

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:06	1
Antimony	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:06	1
Barium	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:06	1
Beryllium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:06	1
Boron	<0.100		0.100		mg/L		03/21/24 10:00	03/25/24 13:06	1
Calcium	<0.500		0.500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Chromium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Cobalt	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Copper	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Lead	<0.000500		0.000500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Lithium	<0.0100		0.0100		mg/L		03/21/24 10:00	03/25/24 13:06	1
Magnesium	<0.500		0.500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Manganese	<0.0100		0.0100		mg/L		03/21/24 10:00	03/25/24 13:06	1
Molybdenum	<0.00200		0.00200		mg/L		03/21/24 10:00	03/25/24 13:06	1
Nickel	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Potassium	<0.500		0.500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Selenium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:06	1
Silver	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:06	1
Sodium	<1.00		1.00		mg/L		03/21/24 10:00	03/25/24 13:06	1
Thallium	<0.00100		0.00100		mg/L		03/21/24 10:00	03/25/24 13:06	1
Vanadium	<0.00500		0.00500		mg/L		03/21/24 10:00	03/25/24 13:06	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-416520/1-A
Matrix: Water
Analysis Batch: 416957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416520

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	<0.0200		0.0200		mg/L		03/21/24 10:00	03/25/24 13:06	1

Lab Sample ID: LCS 310-416520/2-A
Matrix: Water
Analysis Batch: 416957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2115		mg/L		106	80 - 120
Antimony	0.200	0.2147		mg/L		107	80 - 120
Barium	0.100	0.1013		mg/L		101	80 - 120
Beryllium	0.100	0.09992		mg/L		100	80 - 120
Boron	0.200	0.1929		mg/L		96	80 - 120
Chromium	0.100	0.1069		mg/L		107	80 - 120
Cobalt	0.100	0.1080		mg/L		108	80 - 120
Copper	0.200	0.2130		mg/L		106	80 - 120
Lead	0.200	0.2090		mg/L		105	80 - 120
Lithium	0.200	0.2054		mg/L		103	80 - 120
Molybdenum	0.200	0.2113		mg/L		106	80 - 120
Nickel	0.200	0.2157		mg/L		108	80 - 120
Selenium	0.400	0.4047		mg/L		101	80 - 120
Silver	0.100	0.1021		mg/L		102	80 - 120
Thallium	0.100	0.1104		mg/L		110	80 - 120
Vanadium	0.100	0.1048		mg/L		105	80 - 120

Lab Sample ID: LCS 310-416520/2-A
Matrix: Water
Analysis Batch: 417067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2.00	1.879		mg/L		94	80 - 120
Magnesium	2.00	1.941		mg/L		97	80 - 120
Manganese	0.100	0.1018		mg/L		102	80 - 120
Potassium	2.00	1.938		mg/L		97	80 - 120
Sodium	2.00	2.241		mg/L		112	80 - 120
Zinc	0.200	0.2042		mg/L		102	80 - 120

Lab Sample ID: 310-277140-1 MS
Matrix: Water
Analysis Batch: 416957

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0800		0.200	0.3043		mg/L		112	75 - 125
Antimony	<0.00200		0.200	0.2142		mg/L		107	75 - 125
Chromium	0.602		0.100	0.7401	4	mg/L		138	75 - 125
Cobalt	0.00420		0.100	0.1109		mg/L		107	75 - 125
Copper	0.0436		0.200	0.2427		mg/L		100	75 - 125
Nickel	0.0368		0.200	0.2456		mg/L		104	75 - 125
Selenium	0.367		0.400	0.7703		mg/L		101	75 - 125
Silver	<0.00100		0.100	0.09302		mg/L		93	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-277140-1 MS
Matrix: Water
Analysis Batch: 416957

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	0.117		0.100	0.2355		mg/L		118	75 - 125

Lab Sample ID: 310-277140-1 MS
Matrix: Water
Analysis Batch: 417067

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	<0.400		0.100	<0.400		mg/L		NC	75 - 125
Beryllium	<0.200		0.100	<0.200		mg/L		86	75 - 125
Boron	<20.0		0.200	<20.0		mg/L		NC	75 - 125
Calcium	<100		2.00	<100	4	mg/L		-358	75 - 125
Lead	<0.100		0.200	0.1654		mg/L		83	75 - 125
Lithium	<2.00		0.200	<2.00	4	mg/L		29	75 - 125
Magnesium	<100		2.00	<100		mg/L		NC	75 - 125
Manganese	<2.00		0.100	<2.00		mg/L		NC	75 - 125
Molybdenum	<0.400		0.200	<0.400		mg/L		122	75 - 125
Potassium	8320		2.00	7521	4	mg/L		-3971 7	75 - 125
Sodium	474		2.00	443.0	4	mg/L		-1562	75 - 125
Thallium	<0.200	F1	0.100	<0.200	F1	mg/L		-4	75 - 125
Zinc	<4.00		0.200	<4.00		mg/L		NC	75 - 125

Lab Sample ID: 310-277140-1 MSD
Matrix: Water
Analysis Batch: 416957

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.0800		0.200	0.2994		mg/L		110	75 - 125	2	20
Antimony	<0.00200		0.200	0.2059		mg/L		102	75 - 125	4	20
Chromium	0.602		0.100	0.7361	4	mg/L		134	75 - 125	1	20
Cobalt	0.00420		0.100	0.1105		mg/L		106	75 - 125	0	20
Copper	0.0436		0.200	0.2382		mg/L		97	75 - 125	2	20
Nickel	0.0368		0.200	0.2409		mg/L		102	75 - 125	2	20
Selenium	0.367		0.400	0.7610		mg/L		99	75 - 125	1	20
Silver	<0.00100		0.100	0.09128		mg/L		91	75 - 125	2	20
Vanadium	0.117		0.100	0.2356		mg/L		118	75 - 125	0	20

Lab Sample ID: 310-277140-1 MSD
Matrix: Water
Analysis Batch: 417067

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	<0.400		0.100	<0.400		mg/L		NC	75 - 125	7	20
Beryllium	<0.200		0.100	<0.200		mg/L		87	75 - 125	1	20
Boron	<20.0		0.200	<20.0		mg/L		NC	75 - 125	NC	20
Calcium	<100		2.00	<100	4	mg/L		-494	75 - 125	4	20
Lead	<0.100		0.200	0.1588		mg/L		79	75 - 125	4	20
Lithium	<2.00		0.200	<2.00	4	mg/L		-36	75 - 125	11	20
Magnesium	<100		2.00	<100		mg/L		NC	75 - 125	NC	20
Manganese	<2.00		0.100	<2.00		mg/L		NC	75 - 125	NC	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-277140-1 MSD
Matrix: Water
Analysis Batch: 417067

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Molybdenum	<0.400		0.200	<0.400		mg/L		120	75 - 125	2	20
Potassium	8320		2.00	7482	4	mg/L		-41665	75 - 125	1	20
Sodium	474		2.00	433.2	4	mg/L		-2051	75 - 125	2	20
Thallium	<0.200	F1	0.100	<0.200	F1	mg/L		-4	75 - 125	1	20
Zinc	<4.00		0.200	<4.00		mg/L		NC	75 - 125	NC	20

Lab Sample ID: 310-277140-11 DU
Matrix: Water
Analysis Batch: 416957

Client Sample ID: MW-18
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.00814		0.008480		mg/L		4	20
Antimony	<0.00200		<0.00200		mg/L		NC	20
Barium	0.0127		0.01327		mg/L		5	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Boron	0.404		0.4162		mg/L		3	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	<0.000500		<0.000500		mg/L		NC	20
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Lithium	0.740		0.7628		mg/L		3	20
Molybdenum	0.211		0.2235		mg/L		6	20
Nickel	0.00569		0.005601		mg/L		2	20
Selenium	<0.00500		<0.00500		mg/L		NC	20
Silver	<0.00100		<0.00100		mg/L		NC	20
Thallium	<0.00100		<0.00100		mg/L		NC	20
Vanadium	<0.00500		<0.00500		mg/L		NC	20

Lab Sample ID: 310-277140-11 DU
Matrix: Water
Analysis Batch: 417067

Client Sample ID: MW-18
Prep Type: Total/NA
Prep Batch: 416520

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	<50.0		<50.0		mg/L		NC	20
Magnesium	<50.0		<50.0		mg/L		NC	20
Manganese	<1.00		<1.00		mg/L		NC	20
Potassium	3920		3427		mg/L		13	20
Sodium	358		312.7		mg/L		14	20
Zinc	<2.00		<2.00		mg/L		NC	20

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-416704/1-A
Matrix: Water
Analysis Batch: 416789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/22/24 09:19	03/22/24 23:07	1

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: LCS 310-416704/2-A
Matrix: Water
Analysis Batch: 416789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416704

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	1.067		mg/L		107	90 - 110		

Lab Sample ID: 310-277140-2 MS
Matrix: Water
Analysis Batch: 416789

Client Sample ID: LL-1
Prep Type: Total/NA
Prep Batch: 416704

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P	<0.100		1.00	1.102		mg/L		103	90 - 110		

Lab Sample ID: 310-277140-2 MSD
Matrix: Water
Analysis Batch: 416789

Client Sample ID: LL-1
Prep Type: Total/NA
Prep Batch: 416704

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	1.099		mg/L		102	90 - 110	0	13

Lab Sample ID: MB 310-416856/1-A
Matrix: Water
Analysis Batch: 416923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416856

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/25/24 09:36	03/25/24 18:37	1

Lab Sample ID: LCS 310-416856/2-A
Matrix: Water
Analysis Batch: 416923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	0.9193		mg/L		92	90 - 110		

Lab Sample ID: 310-277140-1 MS
Matrix: Water
Analysis Batch: 416923

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416856

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P	0.250	F1	1.00	1.134	F1	mg/L		88	90 - 110		

Lab Sample ID: 310-277140-1 MSD
Matrix: Water
Analysis Batch: 416923

Client Sample ID: L-Sump
Prep Type: Total/NA
Prep Batch: 416856

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	0.250	F1	1.00	1.129	F1	mg/L		88	90 - 110	0	13

Lab Sample ID: MB 310-417068/1-A
Matrix: Water
Analysis Batch: 417155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/27/24 08:45	03/27/24 16:09	1

Method: 365.1 - Phosphorus, Total

Lab Sample ID: LCS 310-417068/2-A
Matrix: Water
Analysis Batch: 417155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9149		mg/L		91	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-416790/1
Matrix: Water
Analysis Batch: 416790

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	932.6		mg/L		93	90 - 110

Lab Sample ID: LCS 310-416790/24
Matrix: Water
Analysis Batch: 416790

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	938.4		mg/L		94	90 - 110

Lab Sample ID: 310-277140-1 DU
Matrix: Water
Analysis Batch: 416790

Client Sample ID: L-Sump
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	1390		1385		mg/L		0.09	10
Bicarbonate Alkalinity as CaCO3	<5.00		<5.00		mg/L		NC	
Carbonate Alkalinity as CaCO3	492		471.9		mg/L		4	

Lab Sample ID: 310-277140-10 DU
Matrix: Water
Analysis Batch: 416790

Client Sample ID: MW-4L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	1420		1422		mg/L		0	10
Bicarbonate Alkalinity as CaCO3	56.6		74.84		mg/L		28	
Carbonate Alkalinity as CaCO3	1370		1347		mg/L		1	

Lab Sample ID: LCS 310-416877/1
Matrix: Water
Analysis Batch: 416877

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	1044		mg/L		104	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-416528/1
Matrix: Water
Analysis Batch: 416528

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			03/20/24 20:05	1

Lab Sample ID: LCS 310-416528/2
Matrix: Water
Analysis Batch: 416528

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	904.0		mg/L		90	90 - 110

Lab Sample ID: 310-277140-3 DU
Matrix: Water
Analysis Batch: 416528

Client Sample ID: LL-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	6000		5500		mg/L		9	20

Lab Sample ID: MB 310-416645/1
Matrix: Water
Analysis Batch: 416645

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			03/21/24 14:24	1

Lab Sample ID: LCS 310-416645/2
Matrix: Water
Analysis Batch: 416645

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	930.0		mg/L		93	90 - 110

Lab Sample ID: 310-277140-23 DU
Matrix: Water
Analysis Batch: 416645

Client Sample ID: MW-16L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	304		314.0		mg/L		3	20

Lab Sample ID: MB 310-416741/1
Matrix: Water
Analysis Batch: 416741

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			03/22/24 12:05	1

Lab Sample ID: LCS 310-416741/2
Matrix: Water
Analysis Batch: 416741

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	914.0		mg/L		91	90 - 110

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: 310-277140-22 DU
Matrix: Water
Analysis Batch: 416741

Client Sample ID: MW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1150			1200		mg/L				4	20

HPLC/IC

Analysis Batch: 416727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-2	LL-1	Total/NA	Water	9056A	
310-277140-2	LL-1	Total/NA	Water	9056A	
310-277140-12	MW-7	Total/NA	Water	9056A	
310-277140-13	MW-19	Total/NA	Water	9056A	
310-277140-14	MW-1A	Total/NA	Water	9056A	
310-277140-15	MW-1B	Total/NA	Water	9056A	
310-277140-15	MW-1B	Total/NA	Water	9056A	
310-277140-16	MW-21	Total/NA	Water	9056A	
310-277140-17	MW-2A	Total/NA	Water	9056A	
310-277140-17	MW-2A	Total/NA	Water	9056A	
310-277140-21	Dupe	Total/NA	Water	9056A	
MB 310-416727/3	Method Blank	Total/NA	Water	9056A	
LCS 310-416727/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 416764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	9056A	
310-277140-1	L-Sump	Total/NA	Water	9056A	
310-277140-1	L-Sump	Total/NA	Water	9056A	
310-277140-3	LL-2	Total/NA	Water	9056A	
310-277140-3	LL-2	Total/NA	Water	9056A	
310-277140-4	UL-2R	Total/NA	Water	9056A	
310-277140-4	UL-2R	Total/NA	Water	9056A	
310-277140-5	LL-3	Total/NA	Water	9056A	
310-277140-5	LL-3	Total/NA	Water	9056A	
310-277140-6	UL-3R	Total/NA	Water	9056A	
310-277140-6	UL-3R	Total/NA	Water	9056A	
310-277140-6	UL-3R	Total/NA	Water	9056A	
310-277140-7	MW-12	Total/NA	Water	9056A	
310-277140-7	MW-12	Total/NA	Water	9056A	
310-277140-8	MW-5	Total/NA	Water	9056A	
310-277140-8	MW-5	Total/NA	Water	9056A	
310-277140-9	MW-4	Total/NA	Water	9056A	
310-277140-9	MW-4	Total/NA	Water	9056A	
310-277140-10	MW-4L	Total/NA	Water	9056A	
310-277140-10	MW-4L	Total/NA	Water	9056A	
310-277140-11	MW-18	Total/NA	Water	9056A	
310-277140-11	MW-18	Total/NA	Water	9056A	
310-277140-18	MW-3L	Total/NA	Water	9056A	
310-277140-19	MW-11	Total/NA	Water	9056A	
310-277140-19	MW-11	Total/NA	Water	9056A	
310-277140-20	Q-Sump	Total/NA	Water	9056A	
310-277140-20	Q-Sump	Total/NA	Water	9056A	
310-277140-22	MW-16	Total/NA	Water	9056A	
310-277140-22	MW-16	Total/NA	Water	9056A	
310-277140-23	MW-16L	Total/NA	Water	9056A	
310-277140-24	MW-14	Total/NA	Water	9056A	
310-277140-24	MW-14	Total/NA	Water	9056A	
310-277140-25	MW-13	Total/NA	Water	9056A	
310-277140-25	MW-13	Total/NA	Water	9056A	
310-277140-26	MW-15	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 416764 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-26	MW-15	Total/NA	Water	9056A	
310-277140-27	MW-20	Total/NA	Water	9056A	
MB 310-416764/3	Method Blank	Total/NA	Water	9056A	
LCS 310-416764/4	Lab Control Sample	Total/NA	Water	9056A	
310-277140-18 MS	MW-3L	Total/NA	Water	9056A	
310-277140-18 MSD	MW-3L	Total/NA	Water	9056A	

Analysis Batch: 666150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-2	LL-1	Total/NA	Water	9056A	
310-277140-3	LL-2	Total/NA	Water	9056A	
310-277140-4	UL-2R	Total/NA	Water	9056A	
310-277140-6	UL-3R	Total/NA	Water	9056A	
310-277140-7	MW-12	Total/NA	Water	9056A	
310-277140-8	MW-5	Total/NA	Water	9056A	
310-277140-9	MW-4	Total/NA	Water	9056A	
310-277140-10	MW-4L	Total/NA	Water	9056A	
310-277140-11	MW-18	Total/NA	Water	9056A	
310-277140-12	MW-7	Total/NA	Water	9056A	
310-277140-13	MW-19	Total/NA	Water	9056A	
310-277140-14	MW-1A	Total/NA	Water	9056A	
MB 400-666150/5	Method Blank	Total/NA	Water	9056A	
LCS 400-666150/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-666150/7	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 666155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-15	MW-1B	Total/NA	Water	9056A	
310-277140-16	MW-21	Total/NA	Water	9056A	
310-277140-17	MW-2A	Total/NA	Water	9056A	
310-277140-18	MW-3L	Total/NA	Water	9056A	
310-277140-19	MW-11	Total/NA	Water	9056A	
310-277140-20	Q-Sump	Total/NA	Water	9056A	
310-277140-21	Dupe	Total/NA	Water	9056A	
310-277140-22	MW-16	Total/NA	Water	9056A	
310-277140-23	MW-16L	Total/NA	Water	9056A	
310-277140-24	MW-14	Total/NA	Water	9056A	
310-277140-25	MW-13	Total/NA	Water	9056A	
310-277140-26	MW-15	Total/NA	Water	9056A	
310-277140-27	MW-20	Total/NA	Water	9056A	
MB 400-666155/29	Method Blank	Total/NA	Water	9056A	
LCS 400-666155/30	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-666155/31	Lab Control Sample Dup	Total/NA	Water	9056A	
310-277140-15 MS	MW-1B	Total/NA	Water	9056A	
310-277140-15 MSD	MW-1B	Total/NA	Water	9056A	

Analysis Batch: 666281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	9056A	
310-277140-5	LL-3	Total/NA	Water	9056A	
MB 400-666281/5	Method Blank	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 666281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-666281/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-666281/7	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 416517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-20	Q-Sump	Total/NA	Water	3005A	
310-277140-21	Dupe	Total/NA	Water	3005A	
310-277140-22	MW-16	Total/NA	Water	3005A	
310-277140-23	MW-16L	Total/NA	Water	3005A	
310-277140-24	MW-14	Total/NA	Water	3005A	
310-277140-25	MW-13	Total/NA	Water	3005A	
310-277140-26	MW-15	Total/NA	Water	3005A	
310-277140-27	MW-20	Total/NA	Water	3005A	
MB 310-416517/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-416517/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-277140-20 DU	Q-Sump	Total/NA	Water	3005A	

Prep Batch: 416520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	3005A	
310-277140-2	LL-1	Total/NA	Water	3005A	
310-277140-3	LL-2	Total/NA	Water	3005A	
310-277140-4	UL-2R	Total/NA	Water	3005A	
310-277140-5	LL-3	Total/NA	Water	3005A	
310-277140-6	UL-3R	Total/NA	Water	3005A	
310-277140-7	MW-12	Total/NA	Water	3005A	
310-277140-8	MW-5	Total/NA	Water	3005A	
310-277140-9	MW-4	Total/NA	Water	3005A	
310-277140-10	MW-4L	Total/NA	Water	3005A	
310-277140-11	MW-18	Total/NA	Water	3005A	
310-277140-12	MW-7	Total/NA	Water	3005A	
310-277140-13	MW-19	Total/NA	Water	3005A	
310-277140-14	MW-1A	Total/NA	Water	3005A	
310-277140-15	MW-1B	Total/NA	Water	3005A	
310-277140-16	MW-21	Total/NA	Water	3005A	
310-277140-17	MW-2A	Total/NA	Water	3005A	
310-277140-18	MW-3L	Total/NA	Water	3005A	
310-277140-19	MW-11	Total/NA	Water	3005A	
MB 310-416520/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-416520/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-277140-1 MS	L-Sump	Total/NA	Water	3005A	
310-277140-1 MSD	L-Sump	Total/NA	Water	3005A	
310-277140-11 DU	MW-18	Total/NA	Water	3005A	

Analysis Batch: 416833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-20	Q-Sump	Total/NA	Water	6020B	416517
310-277140-21	Dupe	Total/NA	Water	6020B	416517
310-277140-22	MW-16	Total/NA	Water	6020B	416517

Metals (Continued)

Analysis Batch: 416833 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-23	MW-16L	Total/NA	Water	6020B	416517
310-277140-24	MW-14	Total/NA	Water	6020B	416517
310-277140-25	MW-13	Total/NA	Water	6020B	416517
310-277140-26	MW-15	Total/NA	Water	6020B	416517
310-277140-27	MW-20	Total/NA	Water	6020B	416517
MB 310-416517/1-A	Method Blank	Total/NA	Water	6020B	416517
LCS 310-416517/2-A	Lab Control Sample	Total/NA	Water	6020B	416517
310-277140-20 DU	Q-Sump	Total/NA	Water	6020B	416517

Analysis Batch: 416897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-20	Q-Sump	Total/NA	Water	6020B	416517
310-277140-22	MW-16	Total/NA	Water	6020B	416517
310-277140-24	MW-14	Total/NA	Water	6020B	416517
310-277140-20 DU	Q-Sump	Total/NA	Water	6020B	416517

Analysis Batch: 416957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	6020B	416520
310-277140-2	LL-1	Total/NA	Water	6020B	416520
310-277140-3	LL-2	Total/NA	Water	6020B	416520
310-277140-4	UL-2R	Total/NA	Water	6020B	416520
310-277140-6	UL-3R	Total/NA	Water	6020B	416520
310-277140-7	MW-12	Total/NA	Water	6020B	416520
310-277140-8	MW-5	Total/NA	Water	6020B	416520
310-277140-9	MW-4	Total/NA	Water	6020B	416520
310-277140-10	MW-4L	Total/NA	Water	6020B	416520
310-277140-11	MW-18	Total/NA	Water	6020B	416520
310-277140-12	MW-7	Total/NA	Water	6020B	416520
310-277140-13	MW-19	Total/NA	Water	6020B	416520
310-277140-14	MW-1A	Total/NA	Water	6020B	416520
310-277140-15	MW-1B	Total/NA	Water	6020B	416520
310-277140-16	MW-21	Total/NA	Water	6020B	416520
310-277140-17	MW-2A	Total/NA	Water	6020B	416520
310-277140-18	MW-3L	Total/NA	Water	6020B	416520
310-277140-19	MW-11	Total/NA	Water	6020B	416520
310-277140-24	MW-14	Total/NA	Water	6020B	416517
MB 310-416520/1-A	Method Blank	Total/NA	Water	6020B	416520
LCS 310-416520/2-A	Lab Control Sample	Total/NA	Water	6020B	416520
310-277140-1 MS	L-Sump	Total/NA	Water	6020B	416520
310-277140-1 MSD	L-Sump	Total/NA	Water	6020B	416520
310-277140-11 DU	MW-18	Total/NA	Water	6020B	416520

Analysis Batch: 417067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	6020B	416520
310-277140-2	LL-1	Total/NA	Water	6020B	416520
310-277140-3	LL-2	Total/NA	Water	6020B	416520
310-277140-4	UL-2R	Total/NA	Water	6020B	416520
310-277140-5	LL-3	Total/NA	Water	6020B	416520
310-277140-6	UL-3R	Total/NA	Water	6020B	416520

Metals (Continued)

Analysis Batch: 417067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-7	MW-12	Total/NA	Water	6020B	416520
310-277140-8	MW-5	Total/NA	Water	6020B	416520
310-277140-9	MW-4	Total/NA	Water	6020B	416520
310-277140-10	MW-4L	Total/NA	Water	6020B	416520
310-277140-11	MW-18	Total/NA	Water	6020B	416520
310-277140-12	MW-7	Total/NA	Water	6020B	416520
310-277140-13	MW-19	Total/NA	Water	6020B	416520
310-277140-14	MW-1A	Total/NA	Water	6020B	416520
310-277140-15	MW-1B	Total/NA	Water	6020B	416520
310-277140-16	MW-21	Total/NA	Water	6020B	416520
310-277140-17	MW-2A	Total/NA	Water	6020B	416520
310-277140-18	MW-3L	Total/NA	Water	6020B	416520
310-277140-19	MW-11	Total/NA	Water	6020B	416520
LCS 310-416520/2-A	Lab Control Sample	Total/NA	Water	6020B	416520
310-277140-1 MS	L-Sump	Total/NA	Water	6020B	416520
310-277140-1 MSD	L-Sump	Total/NA	Water	6020B	416520
310-277140-11 DU	MW-18	Total/NA	Water	6020B	416520

General Chemistry

Analysis Batch: 416528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	SM 2540C	
310-277140-2	LL-1	Total/NA	Water	SM 2540C	
310-277140-3	LL-2	Total/NA	Water	SM 2540C	
310-277140-4	UL-2R	Total/NA	Water	SM 2540C	
310-277140-5	LL-3	Total/NA	Water	SM 2540C	
310-277140-6	UL-3R	Total/NA	Water	SM 2540C	
310-277140-7	MW-12	Total/NA	Water	SM 2540C	
310-277140-8	MW-5	Total/NA	Water	SM 2540C	
310-277140-9	MW-4	Total/NA	Water	SM 2540C	
310-277140-10	MW-4L	Total/NA	Water	SM 2540C	
310-277140-11	MW-18	Total/NA	Water	SM 2540C	
310-277140-12	MW-7	Total/NA	Water	SM 2540C	
MB 310-416528/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-416528/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-277140-3 DU	LL-2	Total/NA	Water	SM 2540C	

Analysis Batch: 416645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-23	MW-16L	Total/NA	Water	SM 2540C	
310-277140-24	MW-14	Total/NA	Water	SM 2540C	
310-277140-25	MW-13	Total/NA	Water	SM 2540C	
310-277140-26	MW-15	Total/NA	Water	SM 2540C	
310-277140-27	MW-20	Total/NA	Water	SM 2540C	
MB 310-416645/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-416645/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-277140-23 DU	MW-16L	Total/NA	Water	SM 2540C	

General Chemistry

Prep Batch: 416704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-2	LL-1	Total/NA	Water	365.1	
MB 310-416704/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-416704/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-277140-2 MS	LL-1	Total/NA	Water	365.1	
310-277140-2 MSD	LL-1	Total/NA	Water	365.1	

Analysis Batch: 416741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-13	MW-19	Total/NA	Water	SM 2540C	
310-277140-14	MW-1A	Total/NA	Water	SM 2540C	
310-277140-15	MW-1B	Total/NA	Water	SM 2540C	
310-277140-16	MW-21	Total/NA	Water	SM 2540C	
310-277140-17	MW-2A	Total/NA	Water	SM 2540C	
310-277140-18	MW-3L	Total/NA	Water	SM 2540C	
310-277140-19	MW-11	Total/NA	Water	SM 2540C	
310-277140-20	Q-Sump	Total/NA	Water	SM 2540C	
310-277140-21	Dupe	Total/NA	Water	SM 2540C	
310-277140-22	MW-16	Total/NA	Water	SM 2540C	
MB 310-416741/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-416741/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-277140-22 DU	MW-16	Total/NA	Water	SM 2540C	

Analysis Batch: 416789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-2	LL-1	Total/NA	Water	365.1	416704
MB 310-416704/1-A	Method Blank	Total/NA	Water	365.1	416704
LCS 310-416704/2-A	Lab Control Sample	Total/NA	Water	365.1	416704
310-277140-2 MS	LL-1	Total/NA	Water	365.1	416704
310-277140-2 MSD	LL-1	Total/NA	Water	365.1	416704

Analysis Batch: 416790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	SM 2320B	
310-277140-3	LL-2	Total/NA	Water	SM 2320B	
310-277140-4	UL-2R	Total/NA	Water	SM 2320B	
310-277140-5	LL-3	Total/NA	Water	SM 2320B	
310-277140-6	UL-3R	Total/NA	Water	SM 2320B	
310-277140-7	MW-12	Total/NA	Water	SM 2320B	
310-277140-8	MW-5	Total/NA	Water	SM 2320B	
310-277140-9	MW-4	Total/NA	Water	SM 2320B	
310-277140-10	MW-4L	Total/NA	Water	SM 2320B	
310-277140-11	MW-18	Total/NA	Water	SM 2320B	
310-277140-12	MW-7	Total/NA	Water	SM 2320B	
310-277140-13	MW-19	Total/NA	Water	SM 2320B	
310-277140-14	MW-1A	Total/NA	Water	SM 2320B	
310-277140-15	MW-1B	Total/NA	Water	SM 2320B	
310-277140-16	MW-21	Total/NA	Water	SM 2320B	
310-277140-17	MW-2A	Total/NA	Water	SM 2320B	
310-277140-18	MW-3L	Total/NA	Water	SM 2320B	
310-277140-19	MW-11	Total/NA	Water	SM 2320B	
310-277140-20	Q-Sump	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 416790 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-21	Dupe	Total/NA	Water	SM 2320B	
310-277140-22	MW-16	Total/NA	Water	SM 2320B	
310-277140-23	MW-16L	Total/NA	Water	SM 2320B	
310-277140-24	MW-14	Total/NA	Water	SM 2320B	
310-277140-25	MW-13	Total/NA	Water	SM 2320B	
310-277140-26	MW-15	Total/NA	Water	SM 2320B	
310-277140-27	MW-20	Total/NA	Water	SM 2320B	
LCS 310-416790/1	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 310-416790/24	Lab Control Sample	Total/NA	Water	SM 2320B	
310-277140-1 DU	L-Sump	Total/NA	Water	SM 2320B	
310-277140-10 DU	MW-4L	Total/NA	Water	SM 2320B	

Prep Batch: 416856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	365.1	
310-277140-3	LL-2	Total/NA	Water	365.1	
310-277140-4	UL-2R	Total/NA	Water	365.1	
310-277140-5	LL-3	Total/NA	Water	365.1	
310-277140-6	UL-3R	Total/NA	Water	365.1	
310-277140-7	MW-12	Total/NA	Water	365.1	
310-277140-8	MW-5	Total/NA	Water	365.1	
310-277140-9	MW-4	Total/NA	Water	365.1	
310-277140-10	MW-4L	Total/NA	Water	365.1	
310-277140-11	MW-18	Total/NA	Water	365.1	
310-277140-12	MW-7	Total/NA	Water	365.1	
310-277140-13	MW-19	Total/NA	Water	365.1	
310-277140-14	MW-1A	Total/NA	Water	365.1	
310-277140-15	MW-1B	Total/NA	Water	365.1	
310-277140-16	MW-21	Total/NA	Water	365.1	
310-277140-17	MW-2A	Total/NA	Water	365.1	
310-277140-18	MW-3L	Total/NA	Water	365.1	
310-277140-19	MW-11	Total/NA	Water	365.1	
310-277140-20	Q-Sump	Total/NA	Water	365.1	
310-277140-21	Dupe	Total/NA	Water	365.1	
MB 310-416856/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-416856/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-277140-1 MS	L-Sump	Total/NA	Water	365.1	
310-277140-1 MSD	L-Sump	Total/NA	Water	365.1	

Analysis Batch: 416877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-2	LL-1	Total/NA	Water	SM 2320B	
LCS 310-416877/1	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 416923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-1	L-Sump	Total/NA	Water	365.1	416856
310-277140-3	LL-2	Total/NA	Water	365.1	416856
310-277140-4	UL-2R	Total/NA	Water	365.1	416856
310-277140-5	LL-3	Total/NA	Water	365.1	416856
310-277140-6	UL-3R	Total/NA	Water	365.1	416856

General Chemistry (Continued)

Analysis Batch: 416923 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-7	MW-12	Total/NA	Water	365.1	416856
310-277140-8	MW-5	Total/NA	Water	365.1	416856
310-277140-9	MW-4	Total/NA	Water	365.1	416856
310-277140-10	MW-4L	Total/NA	Water	365.1	416856
310-277140-11	MW-18	Total/NA	Water	365.1	416856
310-277140-12	MW-7	Total/NA	Water	365.1	416856
310-277140-13	MW-19	Total/NA	Water	365.1	416856
310-277140-14	MW-1A	Total/NA	Water	365.1	416856
310-277140-15	MW-1B	Total/NA	Water	365.1	416856
310-277140-16	MW-21	Total/NA	Water	365.1	416856
310-277140-17	MW-2A	Total/NA	Water	365.1	416856
310-277140-18	MW-3L	Total/NA	Water	365.1	416856
310-277140-19	MW-11	Total/NA	Water	365.1	416856
310-277140-20	Q-Sump	Total/NA	Water	365.1	416856
310-277140-21	Dupe	Total/NA	Water	365.1	416856
MB 310-416856/1-A	Method Blank	Total/NA	Water	365.1	416856
LCS 310-416856/2-A	Lab Control Sample	Total/NA	Water	365.1	416856
310-277140-1 MS	L-Sump	Total/NA	Water	365.1	416856
310-277140-1 MSD	L-Sump	Total/NA	Water	365.1	416856

Prep Batch: 417068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-22	MW-16	Total/NA	Water	365.1	
310-277140-23	MW-16L	Total/NA	Water	365.1	
310-277140-24	MW-14	Total/NA	Water	365.1	
310-277140-25	MW-13	Total/NA	Water	365.1	
310-277140-26	MW-15	Total/NA	Water	365.1	
310-277140-27	MW-20	Total/NA	Water	365.1	
MB 310-417068/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-417068/2-A	Lab Control Sample	Total/NA	Water	365.1	

Analysis Batch: 417155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277140-22	MW-16	Total/NA	Water	365.1	417068
310-277140-23	MW-16L	Total/NA	Water	365.1	417068
310-277140-24	MW-14	Total/NA	Water	365.1	417068
310-277140-25	MW-13	Total/NA	Water	365.1	417068
310-277140-26	MW-15	Total/NA	Water	365.1	417068
310-277140-27	MW-20	Total/NA	Water	365.1	417068
MB 310-417068/1-A	Method Blank	Total/NA	Water	365.1	417068
LCS 310-417068/2-A	Lab Control Sample	Total/NA	Water	365.1	417068

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: L-Sump
Date Collected: 03/18/24 12:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 18:10
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 17:53
Total/NA	Analysis	9056A		100	416764	DHM5	EET CF	03/22/24 09:43
Total/NA	Analysis	9056A		10	666281	LHB	EET PEN	03/29/24 11:36
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:19
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		200	417067	NFT2	EET CF	03/26/24 14:21
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:38
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: LL-1
Date Collected: 03/18/24 12:25
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 16:39
Total/NA	Analysis	9056A		50	416727	QTZ5	EET CF	03/21/24 17:26
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 16:58
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:33
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		100	417067	NFT2	EET CF	03/26/24 14:32
Total/NA	Prep	365.1			416704	MAQ3	EET CF	03/22/24 09:19
Total/NA	Analysis	365.1		1	416789	ZJX4	EET CF	03/22/24 23:08
Total/NA	Analysis	SM 2320B		1	416877	MAQ3	EET CF	03/25/24 10:47
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: LL-2
Date Collected: 03/18/24 13:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 19:29
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 18:32
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 17:18
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:35
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		20	417067	NFT2	EET CF	03/26/24 14:34

Client Sample ID: LL-2

Lab Sample ID: 310-277140-3

Date Collected: 03/18/24 13:10

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:39
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: UL-2R

Lab Sample ID: 310-277140-4

Date Collected: 03/18/24 13:15

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 19:42
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 18:45
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 17:38
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:38
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		20	417067	NFT2	EET CF	03/26/24 14:36
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:40
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: LL-3

Lab Sample ID: 310-277140-5

Date Collected: 03/18/24 13:45

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 20:21
Total/NA	Analysis	9056A		200	416764	DHM5	EET CF	03/22/24 16:55
Total/NA	Analysis	9056A		10	666281	LHB	EET PEN	03/29/24 11:56
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		200	417067	NFT2	EET CF	03/26/24 14:40
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		10	416923	ZJX4	EET CF	03/25/24 19:07
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: UL-3R

Lab Sample ID: 310-277140-6

Date Collected: 03/18/24 13:55

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 20:47
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 19:50

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: UL-3R

Lab Sample ID: 310-277140-6

Date Collected: 03/18/24 13:55

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	416764	DHM5	EET CF	03/25/24 14:03
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 18:57
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:51
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		4	417067	NFT2	EET CF	03/26/24 14:51
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:41
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: MW-12

Lab Sample ID: 310-277140-7

Date Collected: 03/18/24 14:25

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 21:53
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 20:17
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 19:17
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:53
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 14:53
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:41
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: MW-5

Lab Sample ID: 310-277140-8

Date Collected: 03/18/24 14:50

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 22:19
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 20:43
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 19:37
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:56
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		4	417067	NFT2	EET CF	03/26/24 14:55
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:42
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-5
Date Collected: 03/18/24 14:50
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: MW-4
Date Collected: 03/18/24 15:40
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 22:58
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 21:09
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 19:57
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 13:59
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		80	417067	NFT2	EET CF	03/26/24 14:58
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:43
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: MW-4L
Date Collected: 03/18/24 16:00
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 23:11
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 21:22
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 20:16
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:01
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		100	417067	NFT2	EET CF	03/26/24 15:00
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:43
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: MW-18
Date Collected: 03/18/24 16:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 23:24
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 21:35
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 20:36

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-18

Lab Sample ID: 310-277140-11

Date Collected: 03/18/24 16:10

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:03
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		100	417067	NFT2	EET CF	03/26/24 15:02
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:44
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: MW-7

Lab Sample ID: 310-277140-12

Date Collected: 03/19/24 08:45

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 14:54
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 20:56
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:08
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 15:07
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:44
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416528	D7CP	EET CF	03/20/24 20:05

Client Sample ID: MW-19

Lab Sample ID: 310-277140-13

Date Collected: 03/19/24 09:25

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 15:07
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 21:16
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:10
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 15:09
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:44
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: MW-1A

Lab Sample ID: 310-277140-14

Date Collected: 03/19/24 10:15

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 16:13
Total/NA	Analysis	9056A		1	666150	LHB	EET PEN	03/28/24 21:36
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:13
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 15:11
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:45
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: MW-1B

Lab Sample ID: 310-277140-15

Date Collected: 03/19/24 10:00

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 15:33
Total/NA	Analysis	9056A		50	416727	QTZ5	EET CF	03/21/24 17:13
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/28/24 23:35
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:24
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 15:22
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:45
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: MW-21

Lab Sample ID: 310-277140-16

Date Collected: 03/19/24 11:00

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 16:25
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 00:34
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:27
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 15:25
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:46
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-2A

Lab Sample ID: 310-277140-17

Date Collected: 03/19/24 11:30

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 16:52
Total/NA	Analysis	9056A		50	416727	QTZ5	EET CF	03/21/24 17:39
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 00:54
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:29
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 15:27
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:46
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: MW-3L

Lab Sample ID: 310-277140-18

Date Collected: 03/19/24 12:00

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 17:31
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 01:14
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:31
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	417067	NFT2	EET CF	03/26/24 15:29
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:47
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: MW-11

Lab Sample ID: 310-277140-19

Date Collected: 03/19/24 12:30

Matrix: Water

Date Received: 03/20/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 19:03
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 18:06
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 01:33
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416957	NFT2	EET CF	03/25/24 14:33
Total/NA	Prep	3005A			416520	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		100	417067	NFT2	EET CF	03/26/24 15:31
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:48
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-11
Date Collected: 03/19/24 12:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: Q-Sump
Date Collected: 03/19/24 13:00
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 19:16
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 18:19
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 02:33
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:15
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		4	416897	NFT2	EET CF	03/25/24 12:54
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:48
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: Dupe
Date Collected: 03/19/24 09:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416727	QTZ5	EET CF	03/20/24 15:20
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 02:53
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:20
Total/NA	Prep	365.1			416856	MAQ3	EET CF	03/25/24 09:36
Total/NA	Analysis	365.1		1	416923	ZJX4	EET CF	03/25/24 18:48
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: MW-16
Date Collected: 03/19/24 13:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-22
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 19:55
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 18:58
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 03:12
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:22

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-16
Date Collected: 03/19/24 13:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-22
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		4	416897	NFT2	EET CF	03/25/24 12:59
Total/NA	Prep	365.1			417068	MAQ3	EET CF	03/27/24 08:45
Total/NA	Analysis	365.1		1	417155	ZJX4	EET CF	03/27/24 16:14
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416741	ENB7	EET CF	03/22/24 12:05

Client Sample ID: MW-16L
Date Collected: 03/19/24 13:35
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-23
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 20:08
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 03:32
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:24
Total/NA	Prep	365.1			417068	MAQ3	EET CF	03/27/24 08:45
Total/NA	Analysis	365.1		1	417155	ZJX4	EET CF	03/27/24 16:15
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416645	ENB7	EET CF	03/21/24 14:24

Client Sample ID: MW-14
Date Collected: 03/19/24 14:10
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-24
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 21:27
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 20:03
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 03:52
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:26
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		4	416897	NFT2	EET CF	03/25/24 13:01
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		28	416957	NFT2	EET CF	03/25/24 16:05
Total/NA	Prep	365.1			417068	MAQ3	EET CF	03/27/24 08:45
Total/NA	Analysis	365.1		1	417155	ZJX4	EET CF	03/27/24 16:15
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416645	ENB7	EET CF	03/21/24 14:24

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Client Sample ID: MW-13

Date Collected: 03/19/24 14:30
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 22:06
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 20:30
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 04:12
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:28
Total/NA	Prep	365.1			417068	MAQ3	EET CF	03/27/24 08:45
Total/NA	Analysis	365.1		1	417155	ZJX4	EET CF	03/27/24 16:16
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416645	ENB7	EET CF	03/21/24 14:24

Client Sample ID: MW-15

Date Collected: 03/19/24 14:55
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 22:32
Total/NA	Analysis	9056A		50	416764	DHM5	EET CF	03/21/24 20:56
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 04:32
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:31
Total/NA	Prep	365.1			417068	MAQ3	EET CF	03/27/24 08:45
Total/NA	Analysis	365.1		1	417155	ZJX4	EET CF	03/27/24 16:16
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416645	ENB7	EET CF	03/21/24 14:24

Client Sample ID: MW-20

Date Collected: 03/19/24 15:15
Date Received: 03/20/24 09:20

Lab Sample ID: 310-277140-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	416764	DHM5	EET CF	03/20/24 22:45
Total/NA	Analysis	9056A		1	666155	LHB	EET PEN	03/29/24 04:51
Total/NA	Prep	3005A			416517	QTZ5	EET CF	03/21/24 10:00
Total/NA	Analysis	6020B		1	416833	NFT2	EET CF	03/22/24 19:42
Total/NA	Prep	365.1			417068	MAQ3	EET CF	03/27/24 08:45
Total/NA	Analysis	365.1		1	417155	ZJX4	EET CF	03/27/24 16:16
Total/NA	Analysis	SM 2320B		1	416790	MAQ3	EET CF	03/22/24 08:48
Total/NA	Analysis	SM 2540C		1	416645	ENB7	EET CF	03/21/24 14:24

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-277140-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

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

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-277140-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET PEN
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

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

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing America

310-277140 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE KS | Project:

Receipt Information

Date/Time Received: DATE 3-20-24 | TIME 920 | Received By: MU

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 1 of 4

Cooler Custody Seals Present? ☐ Yes ☐ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☐ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: X | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.8 | Corrected Temp (°C): 0.8

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE KS | Project:

Receipt Information

Date/Time Received: DATE 3-20-24 | TIME 920 | Received By: MU

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 2 of 4

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: X | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 5.2 | Corrected Temp (°C): 5.2

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE KS | Project:

Receipt Information

Date/Time Received: DATE 3-20-24 | TIME 920 | Received By: MU

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 3 of 4

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: X | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.5 | Corrected Temp (°C): 0.5

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE KS | Project:

Receipt Information

Date/Time Received: DATE 3-20-24 | TIME 920 | Received By: MU

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 4 of 4

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: X | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.9 | Corrected Temp (°C): 0.9

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (*e.g., bulging septa, broken/cracked bottles, frozen solid?*) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: Tyler Sundell	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Tyler Sundell	Phone: 573-528-0949	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 16200 Foster Street	Due Date Requested: Std.			
City: Overland Park	TAT Requested (days):			
State, Zip: KS	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: tsundell@blackstone-env.com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9056A_ORGFM - (MOD) - Bromate (sub 250ml NT to Pensacola)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
L-Sump	3-18	1210					X	X	X	X	X	X	X		Nitrates- 48hr hold time
LL-1	"	1225													
LL-2		1310													
LL-2R		1315													
LL-3		1345													
LL-3R		1355													
MW-12		1425													
MW-5		1450													
MW-4		1540													
MW-4L		1600													
MW-18		1610													

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
Tyler Sundell	3-18-24 / 1655	BEI	MW	3-20-24 920	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Tyler Sundell	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Tyler Sundell	Phone: 573-528-0949	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:

Address: 16200 Foster Street	Due Date Requested:
City: Overland Park	TAT Requested (days):
State, Zip: KS	Compliance Project: Δ Yes Δ No
Phone:	PO #: Purchase Order not required
Email: tsundell@blackstone-env.com	WO #:
Project Name: Buffalo, IA	Project #: 31010114
Site:	SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9056A_ORGFM - (MOD) - Bromate (sub 250ml NT to Pensacola)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW-7	3-19	0845	G	W			X	X	X	X	X	X	X		Nitrates- 48hr hold time
MW-19		0925													
MW-1A		1015													
MW-1B		1050													
MW-21		1100													
MW-2A		1130													
~~MW-19~~ MW-3C		1200													
MW-11		1230													
G-Sump		1300													
Pape		0930													

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
Tyler Sundell	3-19-19 1539			3-20-19 920	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Tyler Sundell	Phone:	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:	Analysis Requested		Job #:
Address: 16200 Foster Street	Due Date Requested:			
City: Overland Park	TAT Requested (days):			
State, Zip: KS	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: tsundell@blackstone-env.com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9056A_ORGFM - (MOD) - Bromate (sub 250ml NT to Pensacola)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW-16	3-19	1330	G	W			X	X	X	X	X	X	X		Nitrates- 48hr hold time
MW-16L		1335													
MW-14		1440													
MW-13		1430													
MW-15		1455													
MW-20		1515													

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
			MW	3-20-24 920	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-70562.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-277140-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 4/2/2024			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
L-Sump (310-277140-1)	3/18/24	12:10 Central		Water			X		
LL-1 (310-277140-2)	3/18/24	12:25 Central		Water			X		
LL-2 (310-277140-3)	3/18/24	13:10 Central		Water			X		
UL-2R (310-277140-4)	3/18/24	13:15 Central		Water			X		
LL-3 (310-277140-5)	3/18/24	13:45 Central		Water			X		
UL-3R (310-277140-6)	3/18/24	13:55 Central		Water			X		
MW-12 (310-277140-7)	3/18/24	14:25 Central		Water			X		
MW-5 (310-277140-8)	3/18/24	14:50 Central		Water			X		
MW-4 (310-277140-9)	3/18/24	15:40 Central		Water			X		

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
TL	3 20 24 1610		Tammy Calvert	3.20.24 0904	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3°C IR8

Ver: 06/08/2021

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-70562.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 2 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-277140-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 4/2/2024			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-4L (310-277140-10)	3/18/24	16:00 Central		Water			X		
MW-18 (310-277140-11)	3/18/24	16:10 Central		Water			X		
MW-7 (310-277140-12)	3/19/24	08:45 Central		Water			X		
MW-19 (310-277140-13)	3/19/24	09:25 Central		Water			X		
MW-1A (310-277140-14)	3/19/24	10:15 Central		Water			X		
MW-1B (310-277140-15)	3/19/24	10:00 Central		Water			X		
MW-21 (310-277140-16)	3/19/24	11:00 Central		Water			X		
MW-2A (310-277140-17)	3/19/24	11:30 Central		Water			X		
MW-3L (310-277140-18)	3/19/24	12:00 Central		Water			X		

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 3.20.24 1610	Company	Received by:	Date/Time: 3.21.24 0904	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3°C IR8

Ver: 06/08/2021

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-70562.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 3 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-277140-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 4/2/2024	**Analysis Requested**		**Preservation Codes:**
City: Pensacola	TAT Requested (days):			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
State, Zip: FL, 32514				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)
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			Other:
Site:	SSOW#:			

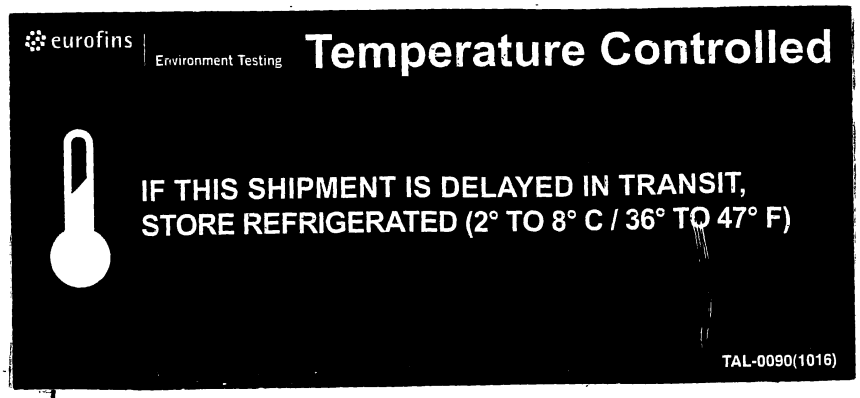
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-11 (310-277140-19)	3/19/24	12:30 Central		Water			X	1	
Q-Sump (310-277140-20)	3/19/24	13:00 Central		Water			X	1	
Dupe (310-277140-21)	3/19/24	09:30 Central		Water			X	1	
MW-16 (310-277140-22)	3/19/24	13:30 Central		Water			X	1	
MW-16L (310-277140-23)	3/19/24	13:35 Central		Water			X	1	
MW-14 (310-277140-24)	3/19/24	14:10 Central		Water			X	1	
MW-13 (310-277140-25)	3/19/24	14:30 Central		Water			X	1	
MW-15 (310-277140-26)	3/19/24	14:55 Central		Water			X	1	
MW-20 (310-277140-27)	3/19/24	15:15 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by: [signature]	Date/Time: 3/20/24 1610	Company	Received by: Sammy Eaucet	Date/Time: 3/21/24 0904	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.3°C IR8		

Ver: 06/08/2021



ORIGIN ID:ALOA (319) 277-2401
SAMPLE RECEIVING
EUROFINS TESTAMERICA
3019 VENTURE WAY

CEDAR FALLS, IA 50613
UNITED STATES US

SHIP DATE: 20MAR24
ACTWGT: 28.45 LB
CAD: 0870970/CAFE3755

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTH
3355 MCLEMORE DRIVE

PENSACOLA FL 32514
(850) 474-1001
REF: S310-91472

FedEx Express

TRK# 0201 7008 5807 1396

THU - 21 MAR 10:30A
PRIORITY OVERNIGHT

XH PNSA

32514
FL-US BFM

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-277140-1

Login Number: 277140
List Number: 1
Creator: Costello, Mackenzie K

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-277140-1

Login Number: 277140
List Number: 2
Creator: Earnest, Tamantha

List Source: Eurofins Pensacola
List Creation: 03/22/24 09:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	False	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3°C IR8
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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX C

CONTINENTAL ANNUAL WATER QUALITY REPORT

Leachate Control System Performance Evaluation Report – 2024

2024 LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT

Continental Cement CKD Monofill Landfill
Buffalo, Iowa
IDNR Landfill Permit Number 82-SDP-16-97P

Prepared for:
Continental Cement, LLC
301 East Front Street
Buffalo, Iowa 52728

Prepared by:
Blackstone Environmental, Inc.
16200 Foster Street
Overland Park, Kansas 66085

BLACKSTONE ENVIRONMENTAL

November 27, 2024

2024 LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT
Continental Cement CKD Monofill Landfill
Buffalo, Iowa
IDNR Landfill Permit Number 82-SDP-16-97P

Prepared for:
Continental Cement
301 East Front Street
Buffalo, Iowa 52728

Prepared by:

Maren Williams, EIT
Project Engineer

Reviewed by:

Kyle Kukuk, P.E.
Senior Project Manager

Certification

Prepared by: _____ **Date: November 27, 2024**

Typed: **Kyle Kukuk, P.E. (#22790)**

Certification page (PE or ground water scientist signature) 113.10(1)”d”

For the purposes of this rule, a “qualified groundwater scientist” means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

BLACKSTONE ENVIRONMENTAL

TABLE OF CONTENTS

TABLES

FIGURES

ACRONYMS/ABBREVIATIONS:

AWQR	**Annual Water Quality Report**
Blackstone	**Blackstone Environmental, Inc.**
Continental	**Continental Cement Company, LLC.**
CKD	**Cement Kiln Dust**
CQA	**Construction Quality Assurance**
IAC	**Iowa Administrative Code**
IDNR	**Iowa Department of Natural Resources**
LCSPER	**Leachate Control System Performance Evaluation Report**
MCL	**USEPA Maximum Contaminant Level**
msl	**mean sea level**
PVC	**polyvinyl chloride**
SCADA	**Supervisory Control and Data Acquisition**
SMCL	**USEPA Secondary Maximum Contaminant Level**
SWS	**IDNR Statewide Standard for a protected groundwater source**
Site	**CKD Monofill**

1.0 INTRODUCTION

This Leachate Control System Performance Evaluation Report (LCSPER) documents the requirements of IAC 567 Chapter 115.26(1)g and includes a description of the leachate system monitoring program, system maintenance, and provides pertinent recommendations, if necessary.

This document was prepared to meet the requirements of the Continental Cement Davenport Plant Operating CKD Landfill Permit Number 82-SDP-16-97P and the applicable regulatory requirements of IAC Chapter 115 and builds upon the previously completed LCSPER dated November 30, 2023. A topographic vicinity map of the Site is presented on Figure 1, a Site Map in Figure 2A, and a Monitoring Locations Map as Figure 2B.

2.0 EXISTING LEACHATE CONTROL SYSTEM COMPONENTS

2.1 Collection Lines

The leachate collection and monitoring system includes an upper drainage layer consisting of a 1-foot thick sand drainage layer and has a 4-foot-thick clay layer below it. The upper drainage layer has two 2-inch diameter slotted PVC collection lines installed within the 1-foot-thick sand drainage layer. Three upper lysimeters (UL-1, UL-2, and UL-3) monitor the leachate thickness in the upper drainage layer. The UL-2 and UL-3 monitoring locations were removed and replaced by UL-2R and UL-3R in September 2022. The current leachate control system and groundwater monitoring network are shown on Figure 2B.

Each perforated 2-inch PVC leachate collection pipe is connected to a 6-inch solid PVC header pipe which conveys liquids from the active Phase II Cell to the leachate collection sump. Both leachate collection lines have cleanout risers installed at the intersections with the header pipe that are located on the west side of the active landfill. Liquids are conveyed from the closed Phase I Cell to the leachate collection sump through a separate pipe installed within Phase I.

2.2 Leachate Collection Sump

A 10-foot diameter, 12-foot deep, leachate collection sump is located along the southwest portion of the landfill. The 6-inch leachate header pipe drains to the collection sump and conveys liquids from the active Phase II Cell. A separate leachate drainpipe conveys liquids from the closed Phase I Cell. Past updates to the leachate system include installation of solar powered equipment and a SCADA system to allow the operators to monitor the leachate sump pump status remotely. The solar powered pumping and sprinkler system pumps leachate from the collection sump up to the top of the active waste mass where sprinkler heads distribute the leachate to evaporate the

liquid off the Site and for dust control. The leachate sprinkler system has been operating as intended.

The solar powered leachate system includes solar array panels, a leachate pump with level-sensing transducer, leachate piping to the active cell, leachate sprinklers, and mounting equipment. The SCADA system and monitoring station at the leachate sump includes a leachate sump level, high level alarm, and low-level shutoff for the leachate sump pump.

2.3 Leachate Monitoring Points

Leachate depth measurements are collected monthly at six different locations including the three upper drainage layer lysimeters (UL-1, UL-2R, and UL-3R), groundwater monitoring wells MW-9 and MW-10, and the leachate collection sump (L-Sump). Liquid elevations typically vary across the monitoring points from month to month. The elevations have been occasionally higher than the allowed (12-inch maximum depth) in select monitoring points during 2024. For those events in UL-1, UL-2R, or UL-3R, the measurement process included a verification measurement after the initial exceedance. The measurement frequency at these locations was increased to weekly in accordance with permit requirements, when necessary. At times,, some measuring points are dry and record no depth to liquid measurements. The leachate measurement data is provided in the attached Table 4.

3.0 LEACHATE CONTROL SYSTEM MAINTENANCE

The leachate collection system was jetted on June 14, 2024, by Toppert Jetting Service (Toppert) of East Moline, Illinois by inserting the jetting line into the pipe from the leachate sump and advancing it towards the UL-2R and UL-3R tie-ins. The leachate line cleanout process included removing the cap at the cleanouts to UL-2R and UL-3R and mobilizing the jetting equipment into place. The leachate sump pump was turned off and removed from the sump prior to jetting to avoid potential damage to the pump. Each collection line was then jetted by advancing the jetting hose through each line until advancement of the hose was restricted. The lines were jetted and flushed until the discharge from the pipes appeared clear. The jetting hose was removed, the caps were placed back onto the cleanout lines, and the sump pump was lowered back into the sump and turned back on once the jetting process was complete.

As mentioned above, the existing UL-2 and UL-3 monitoring points were removed and replaced on September 27 and 28, 2022. A UL Replacement CQA Certification Report, dated October 24, 2022, which documents the observations and review performed by Blackstone during replacement activities, was prepared and submitted to IDNR..

4.0 LEACHATE CONTROL SYSTEM PERFORMANCE

Leachate elevations for the leachate control system monitoring points for 2024 have been included in the attached Table 4. According to IAC 115.26(11)"a"(1), the leachate collection system shall maintain less than 12-inches of leachate thickness over the liner.

Table 1 below details the average 2024 leachate elevation and thickness for each of the five monitoring points. The L-Sump monitoring point data is not included in Table 1 because it is contained within a closed system and not representative of leachate thickness over the liner. Averages were calculated using measurements from January 2024 through September 2024.

Table 1 – Average Leachate Monitoring Data

Leachate Monitoring Point	Average Leachate Elevation (feet msl)*	Average Leachate Thickness (feet)*
MW-9	499.00	0.43
MW-10	Dry	Dry
UL-1	544.37	0.28
UL-2R	537.29	2.09
UL-3R	537.64	1.93

*Average elevation and thickness values are representative of when liquids were measured in the monitoring points and do not take into account "Dry" readings when no liquids were measured.

Monitoring point MW-9 was observed with liquids during most monitoring events and maintained a leachate head between 0.25 feet and 1.09 feet, with one dry measurement in September 2024. MW-10 was observed to be dry during all monitoring events. UL-1 was observed to be dry during most testing events from January to September 2024 besides one measurement event in April 2024 in which the observed leachate head was 0.28 feet. Leachate head levels in UL-2R were observed during all monitoring events in which the liquid levels ranged from 0.71 feet to 3.09 feet. Similarly, UL-3R also observed leachate head levels during all monitoring events in which the liquid levels ranged from 0.35 feet to 3.16 feet.

Historical leachate monitoring results have been provided in previous submittals to IDNR, but it appears the 2024 results are in general accordance with previously observed measurements. Installed in October 2022, the UL-2R and UL-3R monitoring points were installed in direct contact with the top of clay liner.

As described in Section 3.0 above, Leachate collection lines were cleaned through the jetting processes on June 14th, 2024. The leachate head measurements at the UL-2R and UL-3R monitoring points showed signs of decline after cleaning. It is recommended that leachate lines

continue to be cleaned out on an annual basis until additional leachate level data confirms that the replacement UL monitoring points consistently remain below 1-foot.

5.0 LYSIMETER MONITORING DATA EVALUATION

In accordance with Special Provision 4.m of Permit Number 82-SDP-16-97P, this section provides an evaluation regarding concentrations of constituents found within liquids measured in the LL series lysimeters to determine the potential liquid source within the LL monitoring points.

The lower drainage layer is located below the 4-foot-thick clay liner and consists of a 1-foot-thick sand drainage layer. Three lower lysimeters (LL-1, LL-2, and LL-3) were installed to monitor the liquid thickness in the lower drainage layer.

Table 2A below details the average 2024 liquid elevation and thickness for each of the three lower lysimeter monitoring points. Averages were calculated using measurements from January 2024 through September 2024. Lower lysimeter measurement data is provided in the attached Table 5.

Table 2A – Average Lower Lysimeter Monitoring Data

Monitoring Point	Average Liquid Elevation (feet msl)*	Average Liquid Thickness (feet)*
LL-1	532.09	4.15
LL-2	533.52	3.73
LL-3	532.97	2.53

*Average elevation and thickness values are representative of when liquids were measured in the monitoring points and do not take into account “Dry” readings when no liquids were measured.

Lysimeters were sampled with a disposable bailer without purging prior to collecting a sample when liquids were present during sampling events. Sample volumes were retained for field measurements of pH, specific conductivity, and temperature. Field measurements were collected using an Oakton multiparameter probe calibrated according to the manufacturer’s specifications prior to use. Field data sheets entitled “Continental Cement Monitoring Point Sampling Log” are included in Appendix A in the 2024 AWQR that correspond to the semi-annual monitoring events along with laboratory analytical reports and chain-of-custody documentation are included within submittal of the AWQR and are not included herein.

Monitoring data of lower lysimeter samples collected from 2018 through 2024 were reviewed and are summarized in Table 3. Constituents not listed for a particular lysimeter location indicate no

consistent discernable trend was identified between the evaluated monitoring points, or the constituent concentrations were similar between the samples.

Monitoring wells, MW-9, MW-10, and UL-1, were omitted from this analysis as they are historically dry or there was not significant enough data at that monitoring point to complete a comparison. Trends between the lysimeter samples are summarized within Table 3. All data used to populate Table 3 was taken from Table 9 in the 2024 AWQR and not included herein. Constituents not listed for the lysimeter analysis completed indicate insignificant, dry, or non-detectable levels for all samples. For the lysimeter sample comparisons, all comparisons in which there was no discernable trend or an insufficient number of test samples are noted as such. No discernible trend includes constituents that had less than three non-zero samplings and erratic trends with large differences in concentration levels between each monitoring event. Insufficient data indicates that there were fewer than three samples, so a trend could not be derived. Specific data analysis was completed on the lysimeter samples for the following lysimeter pairs:

- LL-1 vs L-Sump
- LL-2 vs L-Sump
- LL-2 vs UL-2R
- LL-3 vs L-Sump
- LL-3 vs UL-3R

Table 2B below provides a summary of the constituent level trend comparison.

Table 2B – Constituent Level Trend Comparison

Constituent	Relevant Lysimeter Pair(s) Trend
Alkalinity, Total	LL-1 > L-Sump
Alkalinity, Bicarbonate	LL-2 > L-Sump, LL-2 > UL-2R, LL-3 > L-Sump
Alkalinity, Carbonate	LL-3 > UL-3R
Barium	LL-1 > L-Sump
Calcium	LL-1 > L-Sump, LL-2 > L-Sump, LL-2 > UL-2R
Chloride	LL-3 > UL-3R
Lead	LL-1 > L-Sump
Magnesium	LL-2 > L-Sump, LL-2 > UL-2R
Manganese	LL-2 > L-Sump, LL-2 > UL-2R
Phosphorous	LL-3 > L-Sump, LL-3 > UL-3R
Potassium	LL-3 > UL-3R
Sodium	LL-3 > UL-3R
Sulfate	LL-3 > L-Sump
Thallium	LL-1 > L-Sump
Total Dissolved Solids	LL-3 > UL-3R

*UL-1, MW-9, and MW-10 omitted as they are historically dry regarding relevant constituents.

In general LL-1, LL-2, and LL-3 have more constituents that exhibit lower concentrations when compared to the L-Sump monitoring data. The constituents where the concentration is higher in the respective lower lysimeter than the sump are listed within Table 3. When comparing between LL-2 and UL-2/2R, the upper lysimeter on average has a higher concentration of the constituents. For LL-3 and UL-3/3R, the lower lysimeter on average has a higher concentration of the constituents. Since monitoring point UL-1 is historically dry, no comparison analysis was completed with LL-1.

6.0 RECOMMENDATIONS

Blackstone recommends continued liquid level and pump monitoring, to achieve compliance with IAC 115.26(11)”a”(1). At present, leachate levels are measured monthly, and the leachate pump is operating when the high-level depth within the collection sump is reached, which appears to occur at least once per day on average. If liquid levels are not maintained with the current equipment, then additional pumping removal strategies will be evaluated.

7.0 LIMITATIONS

This report was prepared in accordance with that level of skill and care ordinarily exercised by other members of Blackstone's profession practicing in the same locality and under similar conditions when the services were provided. No warranties, express or implied, are intended or made.

TABLES

Table 3
Leachate Monitoring Data Summary

			LL-1 vs L-SUMP			LL-2 vs L-SUMP			LL-2 vs UL-2/2R			LL-3 vs L-SUMP			LL-3 vs UL-3/3R		
Constituent	**Units**	**MCL or SWS Level**	**LL-1 vs L-SUMP**	**Average Concentration Difference**	**Concentration Difference Order of Magnitude**	**LL-2 vs L-SUMP**	**Concentration Difference**	**Concentration Difference Order of Magnitude**	**LL-2 vs UL-2/2R**	**Concentration Difference**	**Concentration Difference Order of Magnitude**	**LL-3 vs L-SUMP**	**Concentration Difference**	**Concentration Difference Order of Magnitude**	**LL-3 vs UL-3/3R**	**Concentration Difference**	**Concentration Difference Order of Magnitude**
Specific Conductivity	umhos/cm	n/a	LL-1 lower than L-SUMP	-15022	4.18	LL-2 lower than L-SUMP	-31177	4.49	LL-2 lower than UL-2/2R	-2114	3.33	no discernible trend	-	-	LL-3 higher than UL-3/3R	46948	4.67
Alkalinity, Total	mg/L	n/a	LL-1 higher than L-SUMP	6521	3.81	LL-2 lower than L-SUMP	-1550.6	3.19	LL-2 lower than UL-2/2R	-724.4	2.86	LL-3 lower than L-SUMP	-882.50	2.95	insufficient data	-	-
Alkalinity, Bicarbonate	mg/L	n/a	no discernible trend	-	-	LL-2 higher than L-SUMP	355.40	2.55	LL-2 higher than UL-2/2R	135.6	2.13	LL-3 higher than L-SUMP	552.75	2.74	no discernible trend	-	-
Alkalinity, Carbonate	mg/L	n/a	no discernible trend	-	-	LL-2 lower than L-SUMP	-780.80	2.89	LL-2 lower than UL-2/2R	-213.76	2.33	no discernible trend	-	-	LL-3 higher than UL-3/3R	945.37	2.98
Aluminium	mg/L	n/a	LL-1 lower than L-SUMP	-1.5697	0.20	LL-2 lower than L-SUMP	-2.6855	0.43	LL-2 lower than UL-2/2R	-0.39125	-0.41	insufficient data	-	-	insufficient data	-	-
Arsenic	mg/L	>0.010 mg/L (MCL)	LL-1 lower than L-SUMP	-0.1258	-0.90	LL-2 lower than L-SUMP	-0.1486	-0.83	LL-2 lower than UL-2/2R	-0.04354	-1.36	LL-3 lower than L-SUMP	-0.1132	-0.95	no discernible trend	-	-
Barium	mg/L	>2.0 mg/L (MCL)	LL-1 higher than L-SUMP	0.1360	-0.87	no discernible trend	-	-	LL-2 lower than UL-2/2R	-0.3308	-0.48	no discernible trend	-	-	LL-3 lower than UL-3/3R	-0.3251	-0.49
Calcium	mg/L	n/a	LL-1 higher than L-SUMP	636.07	2.80	LL-2 higher than L-SUMP	764.05	2.88	LL-2 higher than UL-2/2R	168	2.23	LL-3 lower than L-SUMP	-76.3	1.88	LL-3 lower than UL-3/3R	-363.1	2.56
Chloride	mg/L	n/a	LL-1 lower than L-SUMP	-6002.4	3.78	LL-2 lower than L-SUMP	-6909.2	3.84	no discernible trend	-	-	LL-3 lower than L-SUMP	-1865	3.27	LL-3 higher than UL-3/3R	10148	4.01
Chromium	mg/L	>0.1 mg/L (MCL)	LL-1 lower than L-SUMP	-0.5491	-0.26	LL-2 lower than L-SUMP	-0.9015	-0.05	no discernible trend	-	-	LL-3 lower than L-SUMP	-0.9069	-0.04	no discernible trend	-	-
Cobalt	mg/L	>0.0021 mg/L (SWS)	no discernible trend	-	-	no discernible trend	-	-	LL-2 lower than UL-2/2R	-0.0133	-1.88	no discernible trend	-	-	no discernible trend	-	-
Fluoride	mg/L	>4 mg/L (MCL)	no discernible trend	-	-	LL-2 lower than L-SUMP	-0.8027	-0.10	LL-2 lower than UL-2/2R	-0.2933	-0.53	LL-3 lower than L-SUMP	-6.7315	0.83	no discernible trend	-	-
Lead	mg/L	>0.015 mg/L (MCL)	LL-1 higher than L-SUMP	0.1035	-0.99	no discernible trend	-	-	no discernible trend	-	-	no discernible trend	-	-	no discernible trend	-	-
Lithium	mg/L	>0.01 4 mg/L (SWS)	no discernible trend	-	-	LL-2 lower than L-SUMP	-1.8508	0.27	LL-2 lower than UL-2/2R	-0.0861	-1.07	LL-3 lower than L-SUMP	-2.3295	0.37	no discernible trend	-	-
Magnesium	mg/L	n/a	no discernible trend	-	-	LL-2 higher than L-SUMP	175.37	2.24	LL-2 higher than UL-2/2R	132.01	2.12	no discernible trend	-	-	no discernible trend	-	-
Manganese	mg/L	>0.3 mg/L (SWS)	no discernible trend	-	-	LL-2 higher than L-SUMP	26.037	1.42	LL-2 higher than UL-2/2R	15.112	1.18	no discernible trend	-	-	no discernible trend	-	-
Molybdenum	mg/L	>0.04 mg/L (SWS)	LL-1 lower than L-SUMP	-0.0825	-1.08	LL-2 lower than L-SUMP	-0.1237	-0.91	LL-2 lower than UL-2/2R	-0.0485	-1.31	no discernible trend	-	-	no discernible trend	-	-
Nickel	mg/L	>0.1 mg/L (SWS)	LL-1 lower than L-SUMP	-0.0109	-1.96	no discernible trend	-	-	LL-2 lower than UL-2/2R	-0.04	-1.40	LL-3 lower than L-SUMP	-0.0220	-1.66	LL-3 lower than UL-3/3R	-0.0115	-1.94
Nitrate	mg/L	>10 mg/L (MCL)	LL-1 lower than L-SUMP	-1.2425	0.09	LL-2 lower than L-SUMP	-2.1265	0.33	no discernible trend	-	-	LL-3 lower than L-SUMP	-2.7853	0.44	no discernible trend	-	-
Phosphorus	mg/L	>24 mg/L (SWS)	LL-1 lower than L-SUMP	-0.6704	-0.17	LL-2 lower than L-SUMP	-1.1888	0.08	LL-2 lower than UL-2/2R	-0.8427	-0.07	LL-3 higher than L-SUMP	4.3918	0.64	LL-3 higher than UL-3/3R	5.6263	0.75
Potassium	mg/L	n/a	LL-1 lower than L-SUMP	-8984.5	3.95	LL-2 lower than L-SUMP	-11810	4.07	LL-2 lower than UL-2/2R	-2594.7	3.41	no discernible trend	-	-	LL-3 higher than UL-3/3R	14244	4.15
Selenium	mg/L	>0.05 mg/L (MCL)	LL-1 lower than L-SUMP	-0.5025	-0.30	LL-2 lower than L-SUMP	-0.7517	-0.12	LL-2 lower than UL-2/2R	-0.1317	-0.88	LL-3 lower than L-SUMP	-0.6767	-0.17	LL-3 lower than UL-3/3R	-0.0821	-1.09
Sodium	mg/L	n/a	LL-1 lower than L-SUMP	-646.20	2.81	LL-2 lower than L-SUMP	-721.27	2.86	no discernible trend	-	-	no discernible trend	-	-	LL-3 higher than UL-3/3R	1025.4	3.01
Sulfate	mg/L	n/a	LL-1 lower than L-SUMP	-3717.5	3.57	LL-2 lower than L-SUMP	-4533.7	3.66	no discernible trend	-	-	LL-3 higher than L-SUMP	2802.5	3.45	LL-3 higher than UL-3/3R	10209	4.01
Thallium	mg/L	>0.002 mg/L (MCL)	LL-1 higher than L-SUMP	0.0062	-2.21	no discernible trend	-	-	no discernible trend	-	-	no discernible trend	-	-	no discernible trend	-	-
Total Dissolved Solids	mg/L	n/a	LL-1 lower than L-SUMP	-20194	4.31	LL-2 lower than L-SUMP	-27182	4.43	no discernible trend	-	-	no discernible trend	-	-	LL-3 higher than UL-3/3R	41978	4.62
Vanadium	mg/L	>0.035 mg/L (SWS)	LL-1 lower than L-SUMP	-0.1159	-0.94	LL-2 lower than L-SUMP	-0.1671	-0.78	LL-2 lower than UL-2/2R	-0.0696	-1.16	LL-3 lower than L-SUMP	-0.0715	-1.15	no discernible trend	-	-

Notes:
MCL= USEPA Maximum Contaminant Level
SWS = IDNR Statewide Standard for a protected groundwater source

Table 4
Leachate Measurement Data

BLACKSTONE ENVIRONMENTAL

Table 4
Leachate Measurement Data
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Leachate Monitoring Point	Date	Top of Casing Elevation (ft MSL)	Depth to Groundwater (ft below TOC)	Well Total Depth (ft below TOC)	Leachate Elevation (ft MSL)	Leachate Head (ft)
MW-9	12/13/2021	596.29	Dry	97.80	Dry	Dry
	1/31/2022		97.72	98.00	498.57	0.28
	2/28/2022		Dry	98.22	Dry	Dry
	3/15/2022		Dry	98.25	Dry	Dry
	4/19/2022		Dry	98.90	Dry	Dry
	5/19/2022		Dry	99.95	Dry	Dry
	6/23/2022		Dry	99.98	Dry	Dry
	7/14/2022		Dry	99.97	Dry	Dry
	8/25/2022		Dry	99.97	Dry	Dry
	9/22/2022		Dry	99.98	Dry	Dry
	10/26/2022		Dry	99.98	Dry	Dry
	11/16/2022		Dry	99.98	Dry	Dry
	12/15/2022		Dry	99.98	Dry	Dry
	1/25/2023		Dry	99.98	Dry	Dry
	2/21/2023		Dry	99.98	Dry	Dry
	3/20/2023		97.28	99.10	499.01	1.82
	4/27/2023		97.29	99.10	499.00	1.81
	5/8/2023		97.42	99.10	498.87	1.68
	6/1/2023		97.28	99.10	499.01	1.82
	7/25/2023		97.28	99.19	499.01	1.91
	8/30/2023		97.28	98.00	498.67	0.72
	9/25/2023		97.30	97.59	498.99	0.29
	10/4/2023		97.38	98.00	498.91	0.62
	11/9/2023		97.41	98.00	498.88	0.59
	12/4/2023		97.33	97.63	498.96	0.30
	1/24/2024		97.28	97.61	499.01	0.33
	2/27/2024		97.38	97.63	498.91	0.25
	3/18/2024		97.34	97.62	498.95	0.28
	4/11/2024		NM	NM	NM	NM
	5/29/2024		96.91	98.00	499.38	1.09
	6/14/2024		97.47	98.00	498.82	0.53
	7/30/2024		97.32	97.59	498.97	0.27
	8/15/2024		97.30	97.59	498.99	0.29
	9/17/2024		Dry	NM	Dry	Dry
MW-10	12/13/2021	594.16	Dry	98.37	Dry	Dry
	1/31/2022		Dry	98.37	Dry	Dry
	2/28/2022		Dry	98.28	Dry	Dry
	3/15/2022		Dry	98.20	Dry	Dry
	4/19/2022		Dry	101.01	Dry	Dry
	5/19/2022		Dry	100.55	Dry	Dry
	6/23/2022		Dry	100.50	Dry	Dry
	7/14/2022		Dry	100.03	Dry	Dry
	8/25/2022		Dry	100.12	Dry	Dry
	9/22/2022		Dry	100.05	Dry	Dry
	10/26/2022		Dry	100.01	Dry	Dry
	11/16/2022		Dry	100.02	Dry	Dry
	12/15/2022		Dry	100.11	Dry	Dry
	1/25/2023		96.70	98.37	497.46	1.67
	2/21/2023		95.95	98.37	498.21	2.42
	3/20/2023		97.30	98.10	496.86	0.80
	4/27/2023		Dry	98.10	Dry	Dry
	5/8/2023		Dry	98.10	Dry	Dry
	6/1/2023		Dry	98.10	Dry	Dry
	7/25/2023		Dry	98.19	Dry	Dry
	8/30/2023		Dry	97.00	Dry	Dry
	9/25/2023		Dry	96.36	Dry	Dry
	10/4/2023		Dry	97.00	Dry	Dry
	11/9/2023		Dry	97.00	Dry	Dry
	12/4/2023		Dry	97.66	Dry	Dry
	1/24/2024		Dry	97.37	Dry	Dry
	2/27/2024		Dry	97.37	Dry	Dry
	3/18/2024		Dry	97.35	Dry	Dry
	4/11/2024		NM	NM	NM	NM
	5/29/2024		Dry	97.00	Dry	Dry
	6/14/2024		Dry	97.00	Dry	Dry
	7/30/2024		Dry	96.36	Dry	Dry
	8/15/2024		Dry	96.36	Dry	Dry
	9/17/2024		Dry	NM	Dry	Dry

Table 4
Leachate Measurement Data

UL-1	12/13/2021	553.79	Dry	9.41	Dry	Dry
	1/31/2022		Dry	9.70	Dry	Dry
	2/28/2022		Dry	9.58	Dry	Dry
	3/15/2022		Dry	9.60	Dry	Dry
	3/21/2022		Dry	7.58	Dry	Dry
	4/19/2022		Dry	5.54	Dry	Dry
	5/19/2022		8.56	9.56	545.23	1.00
	6/23/2022		Dry	9.63	Dry	Dry
	7/14/2022		Dry	9.61	Dry	Dry
	8/25/2022		Dry	9.60	Dry	Dry
	9/22/2022		Dry	9.61	Dry	Dry
	10/26/2022		Dry	9.60	Dry	Dry
	11/16/2022		Dry	9.60	Dry	Dry
	12/15/2022		Dry	9.58	Dry	Dry
	1/25/2023		Dry	9.58	Dry	Dry
	2/21/2023		Dry	9.58	Dry	Dry
	3/20/2023		Dry	9.59	Dry	Dry
	4/27/2023		Dry	9.59	Dry	Dry
	5/8/2023		Dry	9.59	Dry	Dry
	6/1/2023		Dry	9.60	Dry	Dry
	7/25/2023		Dry	9.60	Dry	Dry
	8/30/2023		Dry	9.70	Dry	Dry
	9/25/2023		Dry	9.59	Dry	Dry
	10/4/2023		9.34	9.70	544.45	0.36
	11/9/2023		Dry	9.70	Dry	Dry
	12/4/2023		Dry	9.70	Dry	Dry
	1/24/2024		Dry	9.70	Dry	Dry
	2/27/2024		Dry	9.65	Dry	Dry
	3/18/2024		Dry	9.65	Dry	Dry
	4/11/2024		Dry	9.70	Dry	Dry
	4/19/2024		9.42	9.70	544.37	0.28
	5/14/2024		Dry	9.70	Dry	Dry
	5/29/2024		Dry	9.70	Dry	Dry
	6/14/2024		Dry	9.70	Dry	Dry
	7/30/2024		Dry	9.59	Dry	Dry
	8/15/2024		Dry	9.59	Dry	Dry
	9/17/2024		Dry	NM	Dry	Dry
UL-2R	9/30/2022	545.37	8.00	10.17	537.37	2.17
	10/6/2022		8.81	10.10	536.56	1.29
	10/14/2022		9.75	10.17	535.62	0.42
	10/20/2022		9.92	10.17	535.45	0.25
	10/26/2022		9.90	10.15	535.47	0.25
	11/16/2022		9.93	10.16	535.44	0.23
	12/15/2022		9.96	10.10	535.41	0.14
	1/25/2023		7.95	10.10	537.42	2.15
	1/31/2023		5.98	10.10	539.39	4.12
	2/8/2023		9.25	10.10	536.12	0.85
	2/21/2023		7.99	10.10	537.38	2.11
	3/2/2023		7.42	10.17	537.95	2.75
	3/9/2023		7.75	10.17	537.62	2.42
	3/16/2023		7.92	10.17	537.45	2.25
	3/20/2023		8.22	10.17	537.15	1.95
	3/30/2023		7.83	10.17	537.54	2.34
	4/5/2023		7.42	10.17	537.95	2.75
	4/14/2023		8.92	10.17	536.45	1.25
	4/21/2023		8.42	10.17	536.95	1.75
	4/27/2023		9.00	10.16	536.37	1.16
	5/3/2023		9.67	10.17	535.70	0.50
	5/8/2023		8.50	10.16	536.87	1.66
	6/1/2023		9.56	10.16	535.81	0.60
	7/25/2023		8.43	10.20	536.94	1.77
	8/18/2023		8.24	10.00	533.94	1.76
	8/25/2023		8.68	10.00	533.94	1.32
	8/30/2023		8.37	10.24	533.94	1.87
	9/25/2023		8.85	10.17	536.52	1.32
	10/4/2023		8.84	10.24	536.53	1.40
	10/13/2023		8.25	10.17	537.12	1.92
	10/25/2023		8.17	10.17	537.20	2.00
	11/2/2023		8.17	10.17	537.20	2.00
	11/9/2023		9.31	10.24	536.06	0.93
	12/4/2023		9.39	10.11	535.98	0.72
	1/24/2024		7.99	10.16	537.38	2.17
	2/1/2024		7.25	10.17	538.12	2.92
	2/9/2024		7.75	10.17	537.62	2.42
	2/16/2024		8.25	10.17	537.12	1.92
	2/23/2024		8.83	10.17	536.54	1.34
	2/27/2024		9.14	10.17	536.23	1.03
	3/4/2024		9.42	10.17	535.95	0.75
	3/18/2024		9.46	10.17	535.91	0.71
	4/11/2024		7.21	10.17	538.16	2.96
	4/19/2024		7.08	10.17	538.29	3.09
	4/25/2024		7.58	10.17	537.79	2.59
	5/3/2024		7.42	10.17	537.95	2.75
	5/9/2024		7.67	10.17	537.70	2.50
	5/14/2024		7.57	10.17	537.80	2.60
	5/25/2024		8.20	10.17	537.17	1.97
	5/29/2024		8.36	10.17	537.01	1.81
	6/4/2024		8.92	10.17	536.45	1.25
	6/14/2024		9.34	10.17	536.03	0.83
	7/30/2024		7.59	10.17	537.78	2.58
	8/15/2024		7.10	10.17	538.27	3.07
	9/17/2024		7.47	10.20	537.90	2.73

Table 4
Leachate Measurement Data

UL-3R	9/30/2022	546.05	8.83	10.33	537.22	1.50
	10/6/2022		9.94	10.25	536.11	0.31
	10/14/2022		Dry	10.33	Dry	Dry
	10/20/2022		Dry	10.33	Dry	Dry
	10/26/2022		Dry	10.31	Dry	Dry
	11/16/2022		Dry	10.30	Dry	Dry
	12/15/2022		Dry	10.25	Dry	Dry
	1/25/2023		8.56	10.35	537.49	1.79
	1/31/2023		9.78	10.31	536.27	0.53
	2/21/2023		8.91	10.35	537.14	1.44
	3/2/2023		7.66	10.33	538.39	2.67
	3/9/2023		9.25	10.33	536.80	1.08
	3/16/2023		9.42	10.33	536.63	0.91
	3/20/2023		9.75	10.33	536.30	0.58
	3/30/2023		8.42	10.33	537.63	1.91
	4/5/2023		7.33	10.33	538.72	3.00
	4/14/2023		8.92	10.33	537.13	1.41
	4/21/2023		8.75	10.33	537.30	1.58
	4/27/2023		9.45	10.45	536.60	1.00
	5/3/2023		10.33	10.33	535.72	0.00
	5/8/2023		Dry	10.45	Dry	Dry
	6/1/2023		Dry	10.45	Dry	Dry
	7/25/2023		10.27	10.38	535.78	0.11
	8/30/2023		Dry	10.38	Dry	Dry
	9/25/2023		Dry	10.35	Dry	Dry
	10/4/2023		Dry	10.38	Dry	Dry
	11/9/2023		Dry	10.38	Dry	Dry
	12/4/2023		10.29	10.38	535.76	0.09
	1/24/2024		7.92	10.35	538.13	2.43
	2/1/2024		7.17	10.33	538.88	3.16
	2/9/2024		8.33	10.33	537.72	2.00
	2/16/2024		9.33	10.33	536.72	1.00
	2/23/2024		9.67	10.33	536.38	0.66
	2/27/2024		9.98	10.33	536.07	0.35
	3/18/2024		8.98	10.33	537.07	1.35
	4/11/2024		7.35	10.33	538.70	2.98
	4/19/2024		7.17	10.33	538.88	3.16
	4/25/2024		8.00	10.33	538.05	2.33
	5/3/2024		7.50	10.33	538.55	2.83
	5/9/2024		7.92	10.33	538.13	2.41
	5/14/2024		7.89	10.33	538.16	2.44
	5/25/2024		8.20	10.33	537.85	2.13
	5/29/2024		8.17	10.33	537.88	2.16
	6/4/2024		9.08	10.33	536.97	1.25
	6/14/2024		9.75	10.33	536.30	0.58
	7/30/2024		8.25	10.35	537.80	2.10
	8/15/2024		8.09	10.35	537.96	2.26
	9/17/2024		9.40	10.39	536.65	0.99

Table 4
Leachate Measurement Data

UL-2	12/13/2021	542.31	5.93	7.16	536.38	1.23
	1/31/2022		5.11	7.31	537.20	2.20
	2/1/2022		5.50	7.30	536.81	1.80
	2/8/2022		5.08	7.06	537.23	1.98
	2/14/2022		5.07	7.07	537.24	2.00
	2/21/2022		4.9	7.20	537.41	2.30
	2/28/2022		4.69	7.20	537.62	2.51
	3/8/2022		3.88	7.21	538.43	3.33
	3/15/2022		5.27	7.18	537.05	1.92
	3/21/2022		3.58	7.17	538.73	3.59
	3/29/2022		3.6	7.17	538.73	3.59
	4/9/2022		3.21	7.17	539.10	3.96
	4/12/2022		3.25	7.17	539.06	3.92
	4/19/2022		2.90	7.21	539.41	4.31
	4/27/2022		3.08	7.17	539.23	4.09
	5/4/2022		3.00	7.17	539.31	4.17
	5/11/2022		3.04	7.17	539.27	4.13
	5/19/2022		3.26	7.20	539.05	3.94
	5/23/2022		3.50	7.17	538.81	3.67
	6/1/2022		3.29	7.17	539.02	3.88
	6/6/2022		3.50	7.17	538.81	3.67
	6/17/2022		3.33	7.17	538.98	3.84
	6/20/2022		3.54	7.17	538.77	3.63
	6/23/2022		4.23	7.22	538.08	2.99
	6/30/2022		3.46	7.17	538.85	3.71
	7/6/2022		3.38	7.17	538.93	3.79
	7/14/2022		3.52	7.20	538.79	3.68
	7/19/2022		3.58	7.17	538.73	3.59
	7/26/2022		3.96	7.17	538.35	3.21
	8/5/2022		4.42	7.17	537.89	2.75
	8/10/2022		4.00	7.17	538.31	3.17
	8/18/2022		4.88	7.17	537.43	2.29
	8/25/2022		3.95	7.20	538.36	3.25
	9/1/2022		4.58	7.17	537.73	2.59
	9/8/2022		4.67	7.17	537.64	2.50
	9/16/2022		4.58	7.17	537.73	2.59
	9/23/2022		3.90	7.21	538.41	3.31

Table 4
Leachate Measurement Data

UL-3	12/13/2021	543.11	Dry	7.42	Dry	Dry
	1/31/2022		7.50	7.50	535.61	0.00
	2/28/2022		5.98	7.45	537.13	1.47
	3/8/2022		5.25	7.29	537.86	2.04
	3/15/2022		5.87	7.15	537.25	1.29
	3/21/2022		5.42	7.42	537.69	2.00
	3/29/2022		6.13	7.42	536.98	1.29
	4/6/2022		5.04	7.42	538.07	2.38
	4/12/2022		5.13	7.42	537.98	2.29
	4/19/2022		4.08	7.42	539.03	3.34
	4/27/2022		4.38	7.42	538.73	3.04
	5/4/2022		4.33	7.42	538.78	3.09
	5/11/2022		4.54	7.42	538.57	2.88
	5/19/2022		5.05	7.47	538.06	2.42
	5/23/2022		5.40	7.42	537.71	2.02
	6/1/2022		4.92	7.42	538.19	2.50
	6/6/2022		5.29	7.42	537.82	2.13
	6/17/2022		5.13	7.42	537.98	2.29
	6/20/2022		5.17	7.42	537.94	2.25
	6/23/2022		5.52	7.45	537.59	1.93
	6/30/2022		5.13	7.42	537.98	2.29
	7/6/2022		4.83	7.42	538.28	2.59
	7/14/2022		5.19	7.43	537.92	2.24
	7/19/2022		4.92	7.42	538.19	2.50
	7/26/2022		5.42	7.42	537.69	2.00
	8/5/2022		5.67	7.42	537.44	1.75
	8/10/2022		5.50	7.42	537.61	1.92
	8/18/2022		5.75	7.42	537.36	1.67
	8/25/2022		6.61	7.48	536.50	0.87
	9/1/2022		5.50	7.42	537.61	1.92
	9/8/2022		5.67	7.42	537.44	1.75
	9/16/2022		5.50	7.42	537.61	1.92
	9/23/2022		6.57	7.45	536.54	0.88

ft below TOC - feet below top of casing

ft MSL - feet above mean sea level

NM - not monitored

N/A - Not available

During the January 2023 measureing event, field staff inadvertantly purged the leachate points. A second measurement was collected, but it was after the leachate points were purged.

Table 5
Lower Lysimeter Measurement Data

BLACKSTONE ENVIRONMENTAL

Table 5
Lower Lysimeter Measurement Data
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Leachate Monitoring Point	Date	Top of Casing Elevation (ft MSL)	Depth to Groundwater (ft below TOC)	Well Total Depth (ft below TOC)	Liquid Elevation (ft MSL)	Liquid Head (ft)
LL-1	12/13/2021	553.39	Dry	24.60	Dry	Dry
	1/31/2022		Dry	24.60	Dry	Dry
	2/28/2022		20.48	25.84	532.91	5.36
	3/8/2022		21.08	24.58	532.31	3.50
	3/15/2022		22.49	24.60	530.90	2.11
	4/19/2022		Dry	3.27	Dry	Dry
	5/19/2022		20.82	24.60	532.57	3.78
	6/23/2022		Dry	24.66	Dry	Dry
	7/14/2022		Dry	24.60	Dry	Dry
	8/25/2022		Dry	24.61	Dry	Dry
	9/22/2022		Dry	24.60	Dry	Dry
	10/26/2022		Dry	24.62	Dry	Dry
	11/16/2022		Dry	24.61	Dry	Dry
	12/15/2022		Dry	24.59	Dry	Dry
	1/26/2023		21.00	24.64	532.39	3.64
	2/21/2023		20.75	24.64	532.64	3.89
	3/20/2023		21.00	24.69	532.39	3.69
	4/27/2023		21.20	24.69	532.19	3.49
	5/8/2023		21.42	24.69	531.97	3.27
	6/1/2023		20.84	24.69	532.55	3.85
	7/25/2023		22.59	24.60	530.80	2.01
	8/30/2023		22.41	24.60	530.98	2.19
	9/25/2023		22.92	24.64	530.47	1.72
	10/4/2023		22.94	24.60	530.45	1.66
	11/9/2023		19.43	24.60	533.96	5.17
	12/6/2023		23.81	24.60	529.58	0.79
	1/24/2024		22.20	24.60	531.19	2.40
	2/27/2024		21.49	24.64	531.90	3.15
	3/18/2024		20.81	24.64	532.58	3.83
	4/11/2024		Dry	Dry	Dry	Dry
	4/19/2024		20.42	24.60	532.97	4.18
	4/25/2024		20.83	24.60	532.56	3.77
	5/3/2024		20.92	24.60	532.47	3.68
	5/9/2024		21.17	24.60	532.22	3.43
	5/29/2024		21.67	24.60	531.72	2.93
	6/14/2024		21.80	24.60	531.59	2.80
	7/30/2024		21.82	29.64	531.57	7.82
	8/15/2024		21.10	29.64	532.29	8.54
	9/17/2024		21.32	24.60	532.07	3.28
LL-2	12/13/2021	540.73	9.98	10.90	530.76	0.92
	1/31/2022		8.90	11.00	531.83	2.10
	2/1/2022		9.50	10.80	531.23	1.30
	2/8/2022		8.95	10.78	531.78	1.83
	2/14/2022		9.21	10.78	531.52	1.57
	2/21/2022		8.2	10.10	532.58	1.95
	2/28/2022		8.92	10.90	531.82	1.99
	3/8/2022		8.96	10.88	531.77	1.92
	3/15/2022		9.38	10.93	531.36	1.56
	4/19/2022		8.92	10.91	531.81	1.99
	5/19/2022		7.80	10.90	532.93	3.10
	6/23/2022		8.71	10.91	532.02	2.20
	7/14/2022		8.56	10.90	532.17	2.34
	8/25/2022		8.68	10.93	532.05	2.25
	9/23/2022		8.65	10.90	532.08	2.25
	10/26/2022		8.69	10.91	532.04	2.22
	11/16/2022		8.65	10.90	532.08	2.25
	12/15/2022		7.88	10.89	532.85	3.01
	1/25/2023		8.74	10.89	531.99	2.15
	2/21/2023		8.93	10.89	531.80	1.96
	3/20/2023		8.72	10.90	532.01	2.18
	4/27/2023		8.41	10.89	532.32	2.48
	5/8/2023		8.70	10.89	532.03	2.19
	6/1/2023		8.41	10.89	532.32	2.48
	7/25/2023		7.84	11.00	532.89	3.16
	8/30/2023		7.93	11.00	532.80	3.07
	9/25/2023		7.50	10.90	533.23	3.40
	10/4/2023		7.41	11.00	533.32	3.59
	11/9/2023		10.97	11.00	529.76	0.03
	12/6/2023		7.81	10.90	532.92	3.09
	1/24/2024		7.53	10.90	533.20	3.37
	2/27/2024		7.48	10.90	533.25	3.42
	3/18/2024		8.41	10.90	532.32	2.49
	4/11/2024		7.41	10.90	533.32	3.49
	4/19/2024		7.75	11.00	532.98	3.25
	4/25/2024		7.42	11.00	533.31	3.58
	5/3/2024		7.50	11.00	533.23	3.50
	5/9/2024		7.33	11.00	533.40	3.67
	5/29/2024		7.16	11.00	533.57	3.84
	6/14/2024		7.31	11.00	533.42	3.69
	7/30/2024		6.23	10.90	534.50	4.67
	8/15/2024		6.03	10.90	534.70	4.87
	9/17/2024		6.23	10.89	534.50	4.66
LL-3	12/13/2021	541.20	Dry	10.73	Dry	Dry
	1/31/2022		9.51	10.80	531.70	1.30
	2/1/2022		9.42	10.80	531.78	1.38
	2/8/2022		9.56	10.67	531.64	1.11
	2/14/2022		10.11	10.59	531.09	0.48
	2/21/2022		9.1	10.80	532.10	1.70
	2/28/2022		9.86	10.73	531.34	0.87
	3/8/2022		9.88	10.71	531.32	0.83
	3/15/2022		10.72	10.75	530.48	0.03
	4/19/2022		9.79	10.75	531.41	0.96
	5/19/2022		9.55	10.70	531.65	1.15
	6/23/2022		9.56	10.75	531.64	1.19
	7/14/2022		9.51	10.73	531.69	1.22
	8/25/2022		9.43	10.75	531.77	1.32
	9/23/2022		9.40	10.73	531.80	1.33
	10/26/2022		9.38	10.70	531.82	1.32
	11/16/2022		9.35	10.71	531.85	1.36
	12/15/2022		9.54	10.70	531.66	1.16
	1/25/2023		9.85	10.73	531.35	0.88
	2/21/2023		9.63	10.73	531.57	1.10
	3/20/2023		9.67	10.71	531.53	1.04
	4/27/2023		9.18	10.74	532.02	1.56
	5/8/2023		9.38	10.74	531.82	1.36
	6/1/2023		9.20	10.73	532.00	1.53
	7/25/2023		8.79	10.80	532.41	2.01
	8/30/2023		8.73	10.74	532.47	2.01
	9/25/2023		8.52	10.72	532.68	2.20
	10/4/2023		8.39	10.74	532.81	2.35
	11/9/2023		8.43	10.74	532.77	2.31
	12/4/2023		8.78	10.80	532.42	2.02
	1/24/2024		8.50	10.78	532.70	2.28
	2/27/2024		8.48	10.72	532.72	2.24
	3/18/2024		8.77	10.72	532.43	1.95
	4/11/2024		8.44	10.78	532.76	2.34
	4/19/2024		8.58	10.80	532.62	2.22
	4/25/2024		8.42	10.80	532.78	2.38
	5/3/2024		8.50	10.80	532.70	2.30
	5/9/2024		8.42	10.80	532.78	2.38
	5/29/2024		8.42	10.74	532.78	2.32
	6/14/2024		8.51	10.74	532.69	2.23
	7/30/2024		7.27	10.72	533.93	3.45
	8/15/2024		7.32	10.72	533.88	3.40
	9/17/2024		7.34	10.73	533.86	3.39

ft below TOC - feet below top of casing
ft MSL - feet above mean sea level
NM - not monitored

Table 6
Leachate Management Summary
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Month	Maximum Head on Liner (feet)					Precipitation (inches)
	MW-9	MW-10	UL-1	UL-2R	UL-3R	
February 2023	Dry	2.42	Dry	2.11	1.44	3.47
March 2023	1.82	0.8	Dry	2.75	2.67	1.91
April 2023	1.81	Dry	Dry	2.75	3.00	1.49
May 2023	1.68	Dry	Dry	1.66	Dry	1.38
June 2023	1.82	Dry	Dry	0.60	Dry	1.91
July 2023	1.91	Dry	Dry	1.77	0.11	2.63
August 2023	0.72	Dry	Dry	1.87	Dry	2.35
September 2023	0.29	Dry	Dry	1.32	Dry	5.01
October 2023	0.62	Dry	0.36	1.40	Dry	2.93
November 2023	0.59	Dry	Dry	2.00	Dry	0.71
Decemeber 2023	0.30	Dry	Dry	0.72	0.09	2.67
January 2024	0.33	Dry	Dry	2.17	2.43	2.82
February 2024	0.25	Dry	Dry	2.92	3.16	0.26
March 2024	0.25	Dry	Dry	0.75	1.35	2.38
April 2024	NM	NM	0.25	3.09	3.16	6.62
May 2024	1.09	Dry	Dry	2.75	2.83	2.58
June 2024	0.53	Dry	Dry	1.81	1.25	3.86
July 2024	0.27	Dry	Dry	2.58	2.10	4.97
August 2024	0.29	Dry	Dry	3.07	2.26	4.32
September 2024	Dry	Dry	Dry	2.73	0.99	0.42
October 2024	TBD	TBD	TBD	TBD	TBD	TBD
November 2024	TBD	TBD	TBD	TBD	TBD	TBD
12-Month Rolling Total						34.54

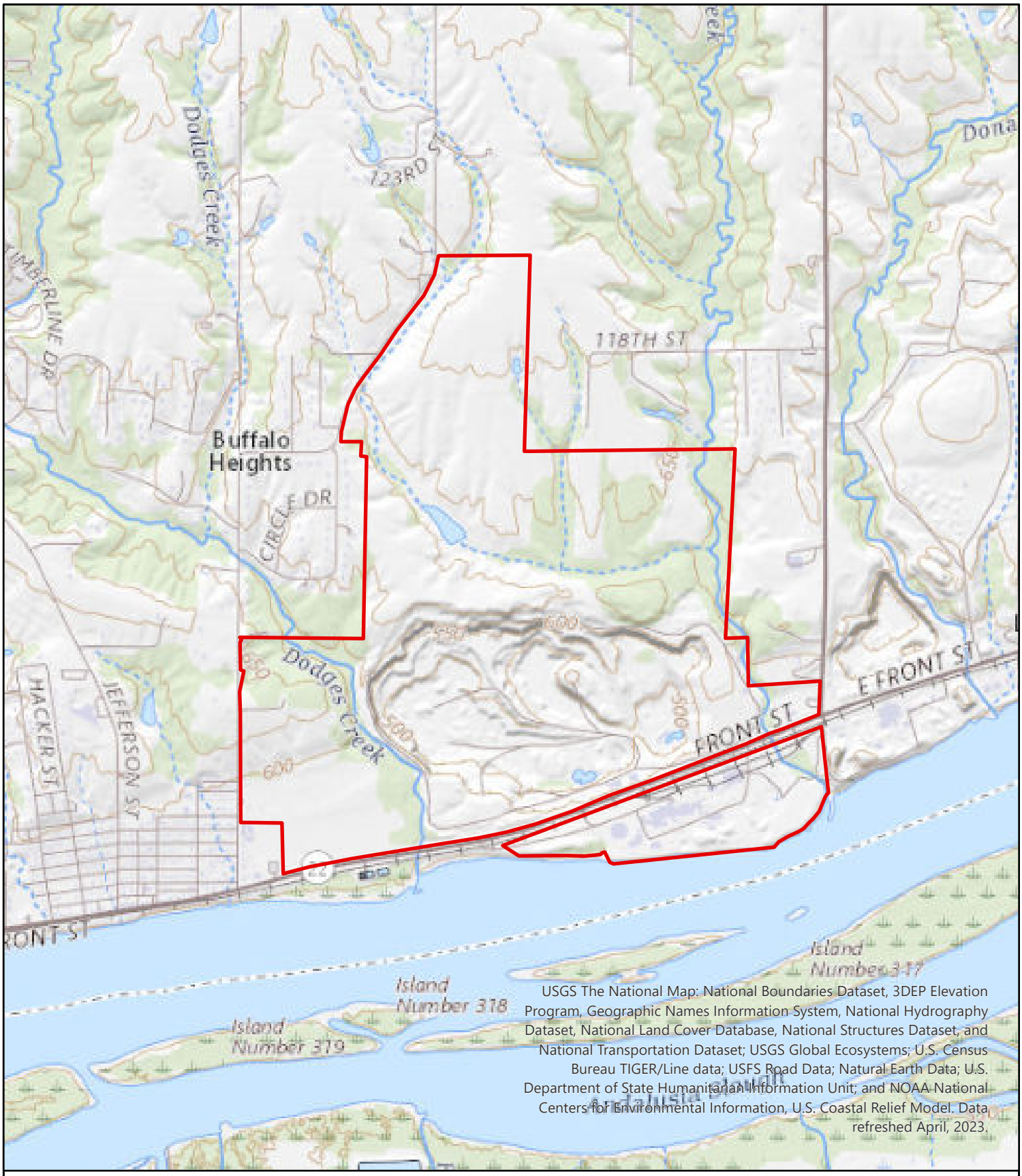
Notes: NM = Not Monitored due to equipment failure.

Table 7
Lower Lysimeter Management Summary
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Month	Maximum Liquid Depth (feet)			Precipitation (inches)
	LL-1	LL-2	LL-3	
January 2023	3.64	2.15	0.88	2.18
February 2023	3.89	1.96	1.10	3.47
March 2023	3.69	2.18	1.04	1.91
April 2023	3.49	2.48	1.56	1.49
May 2023	3.27	2.19	1.36	1.38
June 2023	3.85	2.48	1.53	1.91
July 2023	2.01	3.16	2.01	2.63
August 2023	2.19	3.07	2.01	2.35
September 2023	1.72	3.40	2.20	5.01
October 2023	1.66	3.59	2.35	2.93
November 2023	5.17	0.03	2.31	0.71
December 2023	0.79	3.09	2.02	2.67
January 2024	2.40	3.37	2.28	2.82
February 2024	3.15	3.42	2.24	0.26
March 2024	3.83	2.49	1.95	2.38
April 2024	4.13	3.58	2.38	6.62
May 2024	3.68	3.84	2.38	2.58
June 2024	2.80	3.69	2.23	3.86
July 2024	7.82	4.67	3.45	4.97
August 2024	8.54	4.87	3.40	4.32
September 2024	3.28	4.66	3.39	0.42
October 2024	TBD	TBD	TBD	TBD
November 2024	TBD	TBD	TBD	TBD
12-Month Rolling Total				34.54

FIGURES

Z:\Shared\Clients\Continental Cement\PROJECTS\3066 Landfill Services\WORKING\GIS\Continental



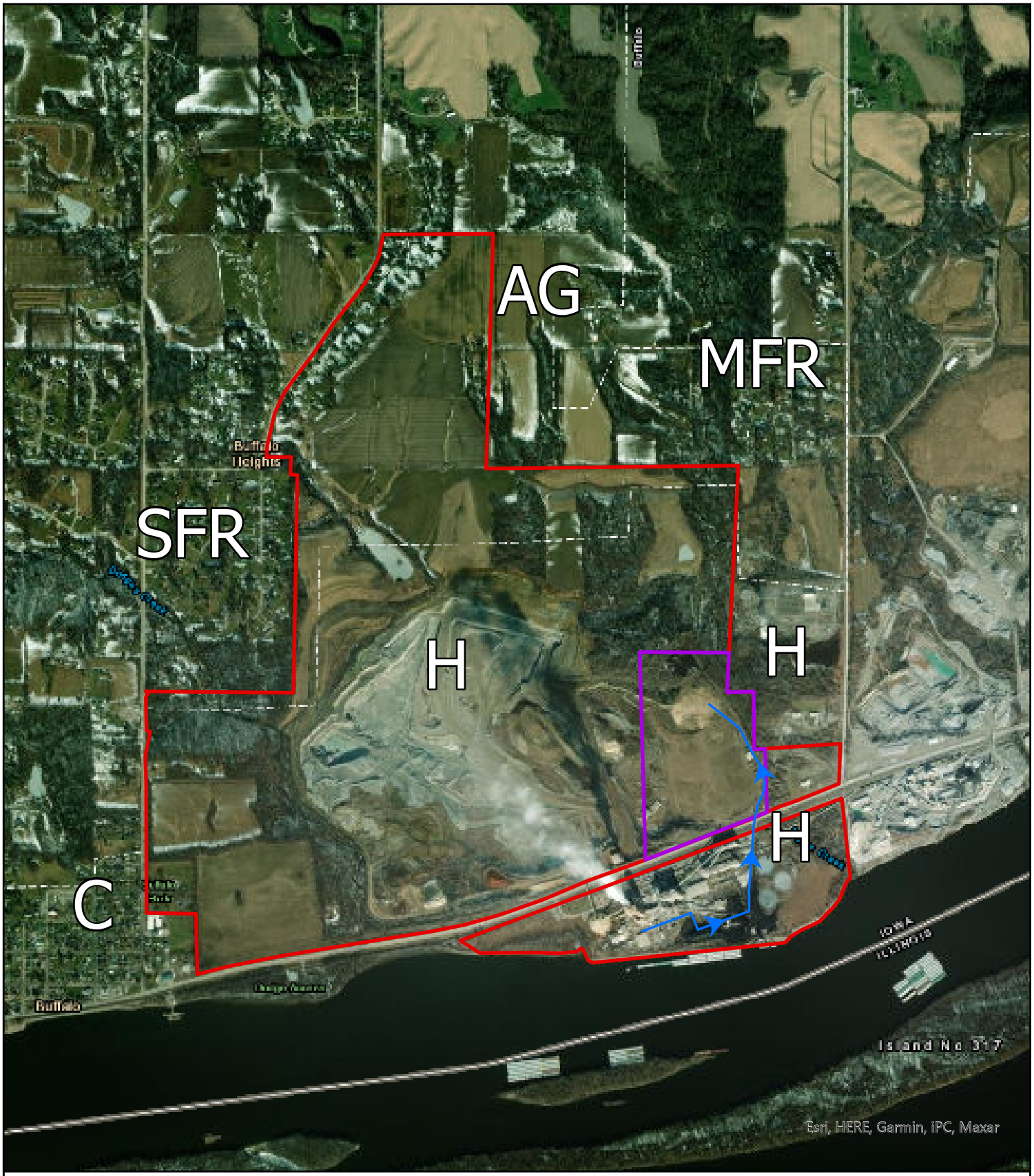
Property Boundary

N

0 2,500 5,000 Feet

FIGURE 1	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Site Topographic Vicinity Map PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

Path: C:\Users\Tyler Sundell\blackstone-env.com\GIS - Documents\DATABASE\Continental GIS\Continental\Continental.aprx



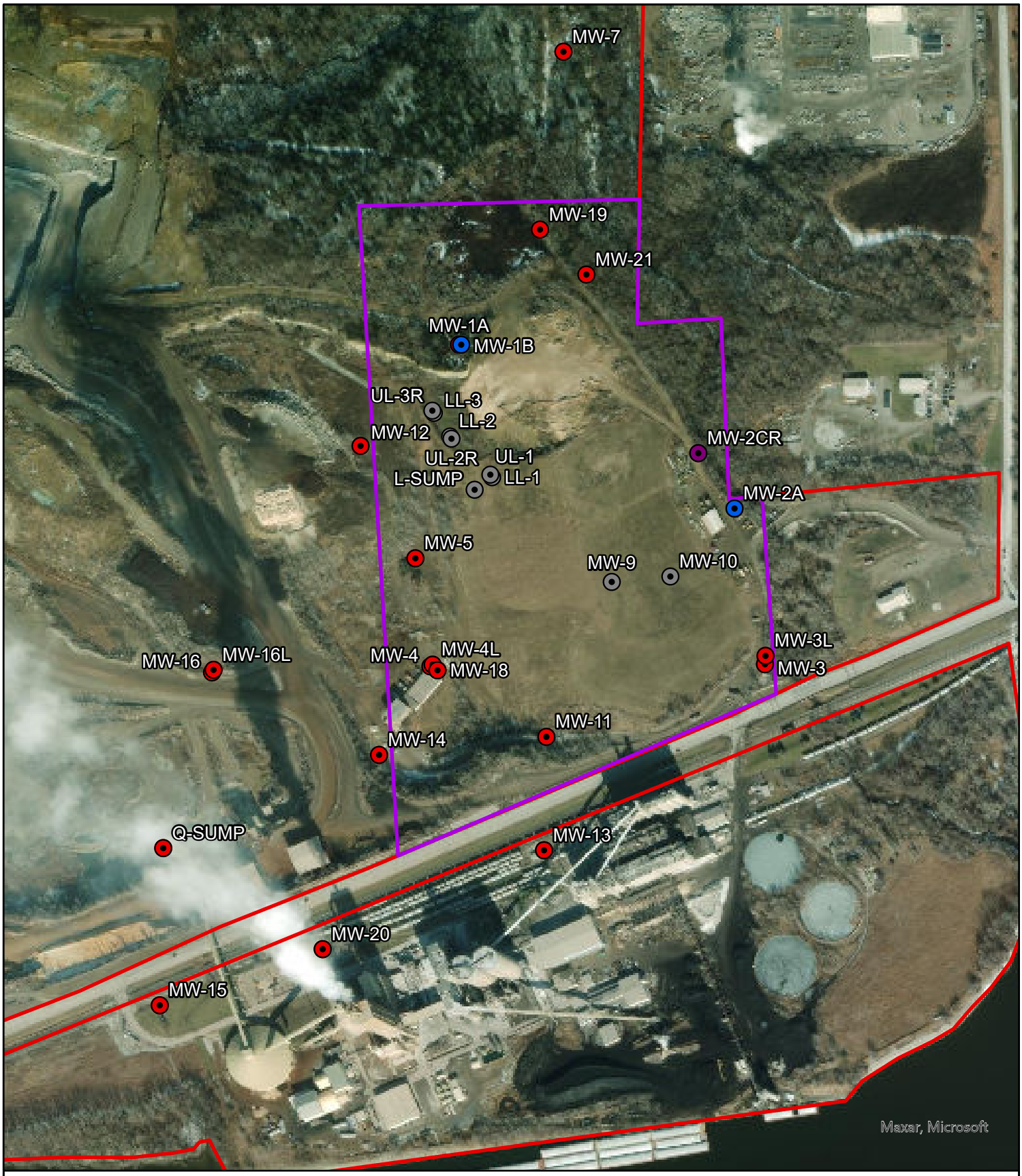
H - Heavy Industrial
C - Two Family
AG - Agricultural - General
Property Boundary
MFR - Multi-Family Residence
SFR - Single-Family Residence
Haul Route
Landfill Boundary

N

0 2,500 5,000 Feet

FIGURE 2A	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Site Plan	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:		PROJECT NAME: Continental Cement Landfill	
	Drawn By: TS	Rev.:		PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

Z:\Shared\Clients\Continental Cement\PROJECTS\3066 Landfill Services\WORKING\GIS\Continental



Shallow
Deep
Leachate
Stope
Landfill Boundary
Property Boundary

N

0 500 1,000 Feet

FIGURE 2B	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA
	Designed By: TS	Rev.:	
	Drawn By: TS	Rev.:	
	Checked By: LJ	Rev.:	
	Job No.: 3433	Rev.:	

SHEET NAME: Monitoring Locations
PROJECT NAME: Continental Cement Landfill
PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa

BLACKSTONE ENVIRONMENTAL