



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	HWB-KP22-05_2025-08-30	----	----	----	----
					Client sampling date / time	30-Aug-2025 17:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500308-011	----	----	----	----	----
					Result	----	----	----	----	----
Physical Tests										
Conductivity	----	E100/WT	1.0	µS/cm	1880	----	----	----	----	----
pH	----	E108/BF	0.10	pH units	6.90	----	----	----	----	----
Solids, total dissolved [TDS]	----	E162/BF	10	mg/L	1230	----	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/BF	1.0	mg/L	6.0	----	----	----	----	----
Turbidity	----	E121/BF	0.10	NTU	24.6	----	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	197	----	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.410	----	----	----	----	----
Bromide	24959-67-9	E235.Br/WT	0.10	mg/L	4.68 ^{DLDS}	----	----	----	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	484 ^{DLDS}	----	----	----	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	<0.100 ^{DLDS}	----	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	0.782	----	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.100 ^{DLDS}	----	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.050 ^{DLDS}	----	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.0269	----	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	9.42 ^{DLDS}	----	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	<0.0100 ^{DLHC}	----	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L	<0.00100 ^{DLHC}	----	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	0.00198 ^{DLHC}	----	----	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.207 ^{DLHC}	----	----	----	----	----



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Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500308-011	----	----	----	----	----
						Result	----	----	----	----
Dissolved Metals										
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L	<0.000200 DLHC	----	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L	<0.000500 DLHC	----	----	----	----	----
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L	<0.100 DLHC	----	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	<0.0000500 DLHC	----	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	177 DLHC	----	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L	<0.000100 DLHC	----	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00500 DLHC	----	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.0121 DLHC	----	----	----	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	<0.00200 DLHC	----	----	----	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	2.51 DLHC	----	----	----	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	<0.000500 DLHC	----	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L	0.0663 DLHC	----	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	99.9 DLHC	----	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	4.58 DLHC	----	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L	<0.0000050	----	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L	0.00108 DLHC	----	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.0443 DLHC	----	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L	<0.500 DLHC	----	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	5.96 DLHC	----	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L	0.0140 DLHC	----	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	<0.000500 DLHC	----	----	----	----	----



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						Result	----	----	----	----
Dissolved Metals										
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L	7.41 DLHC	----	----	----	----	
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000100 DLHC	----	----	----	----	
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	11.7 DLHC	----	----	----	----	
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L	0.580 DLHC	----	----	----	----	
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L	<5.00 DLHC	----	----	----	----	
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L	<0.00200 DLHC	----	----	----	----	
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L	<0.000100 DLHC	----	----	----	----	
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L	<0.00100 DLHC	----	----	----	----	
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L	<0.00100 DLHC	----	----	----	----	
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L	<0.00300 DLHC	----	----	----	----	
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L	<0.00100 DLHC	----	----	----	----	
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L	0.00464 DLHC	----	----	----	----	
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L	<0.00500 DLHC	----	----	----	----	
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	<0.0100 DLHC	----	----	----	----	
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L	<0.00300 DLHC	----	----	----	----	
Dissolved mercury filtration location	----	EP509/WT	-	-	Field	----	----	----	----	
Dissolved metals filtration location	----	EP421/WT	-	-	Field	----	----	----	----	
Aggregate Organics										
Oil & grease (gravimetric)	----	E567/WT	5.0	mg/L	<5.0	----	----	----	----	
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L	<20	----	----	----	----	



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Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500308-011	----	----	----	----	
					Result	----	----	----	----	
Volatile Organic Compounds										
Benzene	71-43-2	E611D/WT	0.50	µg/L	0.82	----	----	----	----	
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Bromoform	75-25-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
BTEX, total	----	E611D/WT	1.0	µg/L	4.3	----	----	----	----	
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	<1.0	----	----	----	----	
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	<0.20	----	----	----	----	
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Chloroform	67-66-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	<2.0	----	----	----	----	
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	<0.20	----	----	----	----	
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	



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						Result	----	----	----	----
Volatile Organic Compounds										
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L	<0.71	----	----	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L	<1.0	----	----	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L	<0.30	----	----	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L	<0.5	----	----	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L	<0.30	----	----	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L	<20	----	----	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L	<20	----	----	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L	<20	----	----	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	----



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					Result	----	----	----	----	
Volatile Organic Compounds										
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L	<1.0	----	----	----	----	
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L	<0.20	----	----	----	----	
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L	<0.40	----	----	----	----	
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L	3.45	----	----	----	----	
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L	3.45	----	----	----	----	
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L/WT	25	µg/L	26	----	----	----	----	
F2 (C10-C16)	----	E601/WT	100	µg/L	210	----	----	----	----	
F3 (C16-C34)	----	E601/WT	250	µg/L	<250	----	----	----	----	
F4 (C34-C50)	----	E601/WT	250	µg/L	<250	----	----	----	----	
F1-BTEX	----	EC580/WT	25	µg/L	<25	----	----	----	----	
Hydrocarbons, total (C6-C50)	n/a	EC581/WT	370	µg/L	<370	----	----	----	----	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/WT	1.0	%	97.5	----	----	----	----	
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	1.0	%	85.1	----	----	----	----	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%	93.1	----	----	----	----	
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%	98.0	----	----	----	----	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A-L/WT	0.010	µg/L	<0.020 ^{DLM}	----	----	----	----	



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Polycyclic Aromatic Hydrocarbons										
Acenaphthylene	208-96-8	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Acridine	260-94-6	E641A-L/WT	0.010	µg/L	<0.012 ^{DLM}	----	----	----	----	----
Anthracene	120-12-7	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Benz(a)anthracene	56-55-3	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Benzo(a)pyrene	50-32-8	E641A-L/WT	0.0050	µg/L	<0.0050	----	----	----	----	----
Benzo(b+j)fluoranthene	n/a	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Benzo(b+j+k)fluoranthene	n/a	E641A-L/WT	0.015	µg/L	<0.015	----	----	----	----	----
Benzo(g,h,i)perylene	191-24-2	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Benzo(k)fluoranthene	207-08-9	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Chrysene	218-01-9	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Dibenz(a,h)anthracene	53-70-3	E641A-L/WT	0.0050	µg/L	<0.0050	----	----	----	----	----
Fluoranthene	206-44-0	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Fluorene	86-73-7	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Methylnaphthalene, 1-	90-12-0	E641A-L/WT	0.010	µg/L	2.92	----	----	----	----	----
Methylnaphthalene, 1+2-	----	E641A-L/WT	0.015	µg/L	5.90	----	----	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A-L/WT	0.010	µg/L	2.98	----	----	----	----	----
Naphthalene	91-20-3	E641A-L/WT	0.010	µg/L	2.69	----	----	----	----	----
Perylene	198-55-0	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Phenanthrene	85-01-8	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----
Pyrene	129-00-0	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	----



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Polycyclic Aromatic Hydrocarbons										
Quinoline	91-22-5	E641A-L/WT	0.010	µg/L	<1.09 ^{DLM}	----	----	----	----	
B(a)P total potency equivalents [B(a)P TPE]	----	E641A-L/WT	0.010	µg/L	<0.010	----	----	----	----	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A-L/WT	0.1	%	101	----	----	----	----	
Naphthalene-d8	1146-65-2	E641A-L/WT	0.1	%	106	----	----	----	----	
Phenanthrene-d10	1517-22-2	E641A-L/WT	0.1	%	102	----	----	----	----	

Please refer to the General Comments section for an explanation of any qualifiers detected.



QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : BF2500308</p> <p>Client : Baffinland Iron Mines Corporation</p> <p>Contact : Environmental Lab Results</p> <p>Address : 360 Oakville Place Dr Suite 300 Oakville ON Canada L6H 6K8</p> <p>Telephone : ----</p> <p>Project : HWB Groundwater</p> <p>PO : 4500156571</p> <p>C-O-C number : 25 08 30_MS_HWB_GW</p> <p>Sampler : AG, JJ, LG</p> <p>Site : MS</p> <p>Quote number : 2024-2025 Scope of Work</p> <p>No. of samples received : 11</p> <p>No. of samples analysed : 11</p>	<p>Page : 1 of 38</p> <p>Laboratory : ALS Environmental - Baffin Island</p> <p>Account Manager : Rick Hawthorne</p> <p>Address : Mary River, Qikqtani Region Baffin Island, Nunavut Canada</p> <p>Telephone : ----</p> <p>Date Samples Received : 01-Sep-2025 17:25</p> <p>Issue Date : 11-Sep-2025 09:45</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Polycyclic Aromatic Hydrocarbons	QC-MRG4-2204975 001	----	Quinoline	91-22-5	E641A-L	0.015 ^{MB-LOR} µg/L	0.01 µg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier Description

MB-LOR *Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.*

Laboratory Control Sample (LCS) Recoveries								
Volatile Organic Compounds	QC-MRG2-2199778 002	----	Acetone	67-64-1	E611D	141 % ^{MES}	70.0-130%	Recovery greater than upper control limit
Volatile Organic Compounds	QC-MRG2-2199778 002	----	Methyl ethyl ketone [MEK]	78-93-3	E611D	131 % ^{MES}	70.0-130%	Recovery greater than upper control limit

Result Qualifiers

Qualifier Description

MES *Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP22-04_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	8 days	✔	08-Sep-2025	28 days	8 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP23-02_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	8 days	✔	08-Sep-2025	28 days	8 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP23-03_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	8 days	✔	08-Sep-2025	28 days	8 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) MS-HWB-GW-REF1_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	8 days	✔	08-Sep-2025	28 days	8 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) QD-CC4_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	8 days	✔	08-Sep-2025	28 days	8 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP22-01_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	9 days	✔	08-Sep-2025	28 days	9 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP22-03_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	9 days	✔	08-Sep-2025	28 days	9 days	✔



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP22-05_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	09-Sep-2025	28 days	9 days	✓
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP23-01_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) MS-HWB-GW5_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) MS-HWB-GW-REF3_2025-08-30	E567	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) HWB-KP22-01_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) HWB-KP22-03_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) HWB-KP22-04_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) HWB-KP22-05_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) HWB-KP23-01_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) HWB-KP23-02_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) HWB-KP23-03_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) MS-HWB-GW5_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) MS-HWB-GW-REF1_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) MS-HWB-GW-REF3_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) QD-CC4_2025-08-30	E298	30-Aug-2025	05-Sep-2025	28 days	6 days	✓	07-Sep-2025	28 days	6 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE HWB-KP22-01_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE HWB-KP22-03_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE HWB-KP22-04_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Bromide in Water by IC											
HDPE HWB-KP22-05_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE HWB-KP23-01_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE HWB-KP23-02_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE HWB-KP23-03_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE MS-HWB-GW5_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE MS-HWB-GW-REF1_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE MS-HWB-GW-REF3_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Bromide in Water by IC											
HDPE QD-CC4_2025-08-30	E235.Br	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE HWB-KP22-01_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Chloride in Water by IC											
HDPE HWB-KP22-03_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE HWB-KP22-04_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE HWB-KP22-05_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE HWB-KP23-01_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE HWB-KP23-02_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE HWB-KP23-03_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE MS-HWB-GW5_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE MS-HWB-GW-REF1_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE MS-HWB-GW-REF3_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE QD-CC4_2025-08-30	E235.Cl	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP22-01_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP22-03_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP22-04_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP22-05_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP23-01_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP23-02_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP23-03_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE MS-HWB-GW5_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Fluoride in Water by IC											
HDPE MS-HWB-GW-REF1_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE MS-HWB-GW-REF3_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE QD-CC4_2025-08-30	E235.F	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Nitrate in Water by IC											
HDPE HWB-KP22-01_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE HWB-KP22-03_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE HWB-KP22-04_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE HWB-KP22-05_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	05-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE HWB-KP23-01_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE HWB-KP23-02_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Nitrate in Water by IC											
HDPE HWB-KP23-03_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	05-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE MS-HWB-GW5_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE MS-HWB-GW-REF1_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	05-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE MS-HWB-GW-REF3_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC											
HDPE QD-CC4_2025-08-30	E235.NO3	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE HWB-KP22-01_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE HWB-KP22-03_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE HWB-KP22-04_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE HWB-KP22-05_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	05-Sep-2025	3 days	5 days	* EHT	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Nitrite in Water by IC											
HDPE HWB-KP23-01_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE HWB-KP23-02_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE HWB-KP23-03_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	05-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE MS-HWB-GW5_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE MS-HWB-GW-REF1_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	05-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE MS-HWB-GW-REF3_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC											
HDPE QD-CC4_2025-08-30	E235.NO2	30-Aug-2025	04-Sep-2025	3 days	5 days	* EHT	08-Sep-2025	3 days	5 days	* EHT	
Anions and Nutrients : Sulfate in Water by IC											
HDPE HWB-KP22-01_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE HWB-KP22-03_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Sulfate in Water by IC											
HDPE HWB-KP22-04_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE HWB-KP22-05_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE HWB-KP23-01_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE HWB-KP23-02_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE HWB-KP23-03_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE MS-HWB-GW5_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE MS-HWB-GW-REF1_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE MS-HWB-GW-REF3_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE QD-CC4_2025-08-30	E235.SO4	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	08-Sep-2025	28 days	5 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) HWB-KP22-01_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) HWB-KP22-03_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) HWB-KP22-04_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) HWB-KP23-01_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) HWB-KP23-02_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) HWB-KP23-03_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) MS-HWB-GW5_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) MS-HWB-GW-REF3_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) QD-CC4_2025-08-30	E318	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)											
Amber glass total (sulfuric acid) HWB-KP22-05_2025-08-30	E318	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)											
Amber glass total (sulfuric acid) MS-HWB-GW-REF1_2025-08-30	E318	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP22-01_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP22-03_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP22-04_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP22-05_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP23-01_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP23-02_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP23-03_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) MS-HWB-GW5_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) MS-HWB-GW-REF1_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) MS-HWB-GW-REF3_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) QD-CC4_2025-08-30	E372-U	30-Aug-2025	06-Sep-2025	28 days	7 days	✓	08-Sep-2025	28 days	7 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP22-01_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP22-03_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP22-04_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP22-05_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	09-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP23-01_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP23-02_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP23-03_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) MS-HWB-GW5_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) MS-HWB-GW-REF1_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	09-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) MS-HWB-GW-REF3_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) QD-CC4_2025-08-30	E509	30-Aug-2025	08-Sep-2025	28 days	9 days	✓	08-Sep-2025	28 days	9 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP22-01_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✓	05-Sep-2025	180 days	6 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP22-03_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✓	05-Sep-2025	180 days	6 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP22-04_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✓	05-Sep-2025	180 days	6 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP22-05_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP23-01_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP23-02_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP23-03_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) MS-HWB-GW5_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) MS-HWB-GW-REF1_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) MS-HWB-GW-REF3_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) QD-CC4_2025-08-30	E421	30-Aug-2025	05-Sep-2025	180 days	6 days	✔	05-Sep-2025	180 days	6 days	✔	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP22-01_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✔	04-Sep-2025	14 days	5 days	✔	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP22-03_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP22-04_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP22-05_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP23-01_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP23-02_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP23-03_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) MS-HWB-GW5_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) MS-HWB-GW-REF1_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) MS-HWB-GW-REF3_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) QD-CC4_2025-08-30	E581.F1-L	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-03_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-04_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-05_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP23-02_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP23-03_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-GW5_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-GW-REF1_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) QD-CC4_2025-08-30	E601	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	



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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-01_2025-08-30	E601	30-Aug-2025	08-Sep-2025	14 days	9 days	✓	09-Sep-2025	40 days	1 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP23-01_2025-08-30	E601	30-Aug-2025	08-Sep-2025	14 days	9 days	✓	09-Sep-2025	40 days	1 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-GW-REF3_2025-08-30	E601	30-Aug-2025	08-Sep-2025	14 days	9 days	✓	09-Sep-2025	40 days	1 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE HWB-KP22-01_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE HWB-KP22-03_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE HWB-KP22-04_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE HWB-KP22-05_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE HWB-KP23-01_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE HWB-KP23-02_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓



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Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Alkalinity Species by Titration											
HDPE HWB-KP23-03_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE MS-HWB-GW5_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE MS-HWB-GW-REF1_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE MS-HWB-GW-REF3_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE QD-CC4_2025-08-30	E290	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	05-Sep-2025	14 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE HWB-KP22-01_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE HWB-KP22-03_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE HWB-KP22-04_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE HWB-KP22-05_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Conductivity in Water											
HDPE HWB-KP23-01_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE HWB-KP23-02_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE HWB-KP23-03_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE MS-HWB-GW5_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE MS-HWB-GW-REF1_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE MS-HWB-GW-REF3_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : Conductivity in Water											
HDPE QD-CC4_2025-08-30	E100	30-Aug-2025	04-Sep-2025	28 days	5 days	✓	05-Sep-2025	28 days	5 days	✓	
Physical Tests : pH by Meter											
HDPE HWB-KP22-05_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	62 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	62 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE MS-HWB-GW-REF1_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	62 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	62 hrs	* EHTR-FM	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : pH by Meter											
HDPE HWB-KP23-03_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	63 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	63 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE HWB-KP22-04_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	64 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	64 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE HWB-KP23-02_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	65 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	65 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE QD-CC4_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	65 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	65 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE HWB-KP22-03_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	66 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	66 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE MS-HWB-GW5_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	67 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	67 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE HWB-KP22-01_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	68 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	68 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE HWB-KP23-01_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	69 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	69 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE MS-HWB-GW-REF3_2025-08-30	E108	30-Aug-2025	02-Sep-2025	0.25 hrs	69 hrs	* EHTR-FM	02-Sep-2025	0.25 hrs	69 hrs	* EHTR-FM	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry										
HDPE HWB-KP22-01_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE HWB-KP22-03_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE HWB-KP22-04_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE HWB-KP22-05_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE HWB-KP23-01_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE HWB-KP23-02_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE HWB-KP23-03_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE MS-HWB-GW5_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE MS-HWB-GW-REF1_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry										
HDPE MS-HWB-GW-REF3_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE QD-CC4_2025-08-30	E162	30-Aug-2025	----	----	----		04-Sep-2025	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE HWB-KP22-01_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE HWB-KP22-03_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE HWB-KP22-04_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE HWB-KP22-05_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE HWB-KP23-01_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE HWB-KP23-02_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE HWB-KP23-03_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE MS-HWB-GW5_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE MS-HWB-GW-REF1_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE MS-HWB-GW-REF3_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE QD-CC4_2025-08-30	E160-L	30-Aug-2025	----	----	----		03-Sep-2025	7 days	4 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE HWB-KP22-01_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE HWB-KP22-03_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE HWB-KP22-04_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE HWB-KP22-05_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE HWB-KP23-01_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Turbidity by Nephelometry											
HDPE HWB-KP23-02_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE HWB-KP23-03_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE MS-HWB-GW5_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE MS-HWB-GW-REF1_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE MS-HWB-GW-REF3_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE QD-CC4_2025-08-30	E121	30-Aug-2025	----	----	----		02-Sep-2025	3 days	3 days	✓	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-03_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-04_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-05_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✓	09-Sep-2025	40 days	0 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP23-02_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✔	09-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP23-03_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✔	09-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-GW5_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✔	09-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-GW-REF1_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✔	09-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) QD-CC4_2025-08-30	E641A-L	30-Aug-2025	09-Sep-2025	14 days	10 days	✔	09-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-01_2025-08-30	E641A-L	30-Aug-2025	08-Sep-2025	14 days	9 days	✔	08-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP23-01_2025-08-30	E641A-L	30-Aug-2025	08-Sep-2025	14 days	9 days	✔	08-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-GW-REF3_2025-08-30	E641A-L	30-Aug-2025	08-Sep-2025	14 days	9 days	✔	08-Sep-2025	40 days	0 days	✔	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP22-01_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✔	04-Sep-2025	14 days	5 days	✔	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP22-03_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP22-04_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP22-05_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP23-01_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP23-02_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP23-03_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) MS-HWB-GW5_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) MS-HWB-GW-REF1_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) MS-HWB-GW-REF3_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) QD-CC4_2025-08-30	E611D	30-Aug-2025	04-Sep-2025	14 days	5 days	✓	04-Sep-2025	14 days	5 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2199569	2	22	9.0	5.0	✓
pH by Meter	E108	2193664	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	2193666	1	20	5.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	2193668	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	2193670	1	20	5.0	5.0	✓
Bromide in Water by IC	E235.Br	2199570	2	25	8.0	5.0	✓
Chloride in Water by IC	E235.Cl	2199574	2	38	5.2	5.0	✓
Fluoride in Water by IC	E235.F	2199571	2	30	6.6	5.0	✓
Nitrite in Water by IC	E235.NO2	2199573	2	29	6.9	5.0	✓
Nitrate in Water by IC	E235.NO3	2199572	2	29	6.9	5.0	✓
Sulfate in Water by IC	E235.SO4	2199575	2	31	6.4	5.0	✓
Alkalinity Species by Titration	E290	2199568	2	34	5.8	5.0	✓
Ammonia by Fluorescence	E298	2201872	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2201870	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2201871	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2201064	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	2201321	2	40	5.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2199634	2	30	6.6	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2199633	2	35	5.7	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2199569	2	22	9.0	5.0	✓
pH by Meter	E108	2193664	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	2193666	1	20	5.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	2193668	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	2193670	1	20	5.0	5.0	✓
Bromide in Water by IC	E235.Br	2199570	2	25	8.0	5.0	✓
Chloride in Water by IC	E235.Cl	2199574	2	38	5.2	5.0	✓
Fluoride in Water by IC	E235.F	2199571	2	30	6.6	5.0	✓
Nitrite in Water by IC	E235.NO2	2199573	2	29	6.9	5.0	✓
Nitrate in Water by IC	E235.NO3	2199572	2	29	6.9	5.0	✓
Sulfate in Water by IC	E235.SO4	2199575	2	31	6.4	5.0	✓
Alkalinity Species by Titration	E290	2199568	2	34	5.8	5.0	✓
Ammonia by Fluorescence	E298	2201872	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2201870	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2201871	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2201064	1	20	5.0	5.0	✓



Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
Dissolved Mercury in Water by CVAAS	E509	2201321	2	40	5.0	5.0	✔
Oil & Grease by Gravimetry	E567	2204946	2	22	9.0	5.0	✔
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2199634	2	30	6.6	5.0	✔
CCME PHCs - F2-F4 by GC-FID	E601	2204975	2	25	8.0	5.0	✔
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2199633	2	35	5.7	5.0	✔
PAHs in Water by Hexane LVI GC-MS (Low Level)	E641A-L	2204976	2	23	8.7	5.0	✔
Method Blanks (MB)							
Conductivity in Water	E100	2199569	2	22	9.0	5.0	✔
Turbidity by Nephelometry	E121	2193666	1	20	5.0	5.0	✔
TSS by Gravimetry (Low Level)	E160-L	2193668	1	20	5.0	5.0	✔
TDS by Gravimetry	E162	2193670	1	20	5.0	5.0	✔
Bromide in Water by IC	E235.Br	2199570	2	25	8.0	5.0	✔
Chloride in Water by IC	E235.Cl	2199574	2	38	5.2	5.0	✔
Fluoride in Water by IC	E235.F	2199571	2	30	6.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2199573	2	29	6.9	5.0	✔
Nitrate in Water by IC	E235.NO3	2199572	2	29	6.9	5.0	✔
Sulfate in Water by IC	E235.SO4	2199575	2	31	6.4	5.0	✔
Alkalinity Species by Titration	E290	2199568	2	34	5.8	5.0	✔
Ammonia by Fluorescence	E298	2201872	2	40	5.0	5.0	✔
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2201870	2	37	5.4	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2201871	2	40	5.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	2201064	1	20	5.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	2201321	2	40	5.0	5.0	✔
Oil & Grease by Gravimetry	E567	2204946	2	22	9.0	5.0	✔
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2199634	2	30	6.6	5.0	✔
CCME PHCs - F2-F4 by GC-FID	E601	2204975	2	25	8.0	5.0	✔
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2199633	2	35	5.7	5.0	✔
PAHs in Water by Hexane LVI GC-MS (Low Level)	E641A-L	2204976	2	23	8.7	5.0	✔
Matrix Spikes (MS)							
Bromide in Water by IC	E235.Br	2199570	2	25	8.0	5.0	✔
Chloride in Water by IC	E235.Cl	2199574	2	38	5.2	5.0	✔
Fluoride in Water by IC	E235.F	2199571	2	30	6.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2199573	2	29	6.9	5.0	✔
Nitrate in Water by IC	E235.NO3	2199572	2	29	6.9	5.0	✔
Sulfate in Water by IC	E235.SO4	2199575	2	31	6.4	5.0	✔
Ammonia by Fluorescence	E298	2201872	2	40	5.0	5.0	✔
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2201870	2	37	5.4	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2201871	2	40	5.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	2201064	1	20	5.0	5.0	✔



Matrix: **Water** Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS) - Continued							
Dissolved Mercury in Water by CVAAS	E509	2201321	2	40	5.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2199634	2	30	6.6	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2199633	2	35	5.7	5.0	✓



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Baffin Island	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Baffin Island	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Baffin Island	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Baffin Island	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC	E235.Br ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Oil & Grease by Gravimetry	E567 ALS Environmental - Waterloo	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane and the extract is evaporated to dryness. The residue is then weighed to determine Oil and Grease.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4). Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
PAHs in Water by Hexane LVI GC-MS (Low Level)	E641A-L ALS Environmental - Waterloo	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
F1-BTEX	EC580 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
Sum F1 to F4 (C6-C50)	EC581 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Oil & Grease Extraction for Gravimetry	EP567 ALS Environmental - Waterloo	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane by liquid-liquid extraction.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Waterloo	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

QUALITY CONTROL REPORT

Work Order	: BF2500308	Page	: 1 of 29
Client	: Baffinland Iron Mines Corporation	Laboratory	: ALS Environmental - Baffin Island
Contact	: Environmental Lab Results	Account Manager	: Rick Hawthorne
Address	: 360 Oakville Place Dr Suite 300 Oakville ON Canada L6H 6K8	Address	: Mary River, Qikqtani Region Baffin Island, Nunavut Canada
Telephone	: ----	Telephone	:
Project	: HWB Groundwater	Date Samples Received	: 01-Sep-2025 17:25
PO	: 4500156571	Date Analysis Commenced	: 02-Sep-2025
C-O-C number	: 25 08 30_MS_HWB_GW	Issue Date	: 11-Sep-2025 09:45
Sampler	: AG, JJ, LG		
Site	: MS		
Quote number	: 2024-2025 Scope of Work		
No. of samples received	: 11		
No. of samples analysed	: 11		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Amaninder Dhillon	Team Lead - Semi-Volatile Instrumentation	Waterloo Organics, Waterloo, Ontario
Cedrick Velasco	Lab Manager	Baffin Island Inorganics, Baffin Island, Nunavut
Danielle Gravel	Supervisor - Semi-Volatile Instrumentation	Waterloo Organics, Waterloo, Ontario
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Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation	Waterloo Organics, Waterloo, Ontario
Rachel Cameron	Supervisor - Semi-Volatile Extractions	Waterloo Organics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Metals, Waterloo, Ontario



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2193664)											
BF2500308-001	MS-HWB-GW-REF3_2025-08-30	pH	----	E108	0.10	pH units	7.25	7.28	0.413%	4%	---
Physical Tests (QC Lot: 2193666)											
BF2500308-001	MS-HWB-GW-REF3_2025-08-30	Turbidity	----	E121	0.10	NTU	1.92	1.78	7.57%	15%	---
Physical Tests (QC Lot: 2193668)											
BF2500308-002	HWB-KP23-01_2025-08-30	Solids, total suspended [TSS]	----	E160-L	1.3	mg/L	3.4	3.2	0.2	Diff <2x LOR	---
Physical Tests (QC Lot: 2193670)											
BF2500308-001	MS-HWB-GW-REF3_2025-08-30	Solids, total dissolved [TDS]	----	E162	18	mg/L	2000	1980	0.980%	20%	---
Physical Tests (QC Lot: 2199568)											
BF2500299-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	153	153	0.0782%	20%	---
Physical Tests (QC Lot: 2199569)											
BF2500299-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	345	347	0.578%	10%	---
Physical Tests (QC Lot: 2199618)											
BF2500298-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	166	165	0.784%	10%	---
Physical Tests (QC Lot: 2199619)											
BF2500298-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	71.5	71.4	0.140%	20%	---
Anions and Nutrients (QC Lot: 2199570)											
BF2500299-001	Anonymous	Bromide	24959-67-9	E235.Br	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	---
Anions and Nutrients (QC Lot: 2199571)											
BF2500299-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.085	0.081	0.004	Diff <2x LOR	---
Anions and Nutrients (QC Lot: 2199572)											
BF2500299-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.210	0.206	1.78%	20%	---
Anions and Nutrients (QC Lot: 2199573)											
BF2500299-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	---
Anions and Nutrients (QC Lot: 2199574)											
BF2500299-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	4.21	3.99	0.22	Diff <2x LOR	---
Anions and Nutrients (QC Lot: 2199575)											
BF2500299-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	20.4	20.2	0.788%	20%	---
Anions and Nutrients (QC Lot: 2199612)											



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Anions and Nutrients (QC Lot: 2199612) - continued											
BF2500308-009	HWB-KP23-03_2025-08-30	Bromide	24959-67-9	E235.Br	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2199613)											
BF2500308-009	HWB-KP23-03_2025-08-30	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2199614)											
BF2500308-009	HWB-KP23-03_2025-08-30	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2199615)											
BF2500308-009	HWB-KP23-03_2025-08-30	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	10.9	11.1	1.83%	20%	----
Anions and Nutrients (QC Lot: 2199616)											
BF2500308-009	HWB-KP23-03_2025-08-30	Chloride	16887-00-6	E235.Cl	0.50	mg/L	40.5	41.1	1.45%	20%	----
Anions and Nutrients (QC Lot: 2199617)											
BF2500308-009	HWB-KP23-03_2025-08-30	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.085	0.086	0.0007	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2201870)											
BF2500303-002	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	2.17	2.13	2.05%	20%	----
Anions and Nutrients (QC Lot: 2201871)											
BF2500303-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0050	0.0051	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2201872)											
BF2500304-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0500	mg/L	2.20	2.28	3.29%	20%	----
Anions and Nutrients (QC Lot: 2201885)											
BF2500308-011	HWB-KP22-05_2025-08-30	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.782	0.825	5.34%	20%	----
Anions and Nutrients (QC Lot: 2201887)											
BF2500308-010	MS-HWB-GW-REF1_2025-08-30	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0083	0.0096	0.0013	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2201891)											
BF2500311-008	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2201064)											
BF2500308-001	MS-HWB-GW-REF3_2025-08-30	Aluminum, dissolved	7429-90-5	E421	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00100	mg/L	0.100	0.102	1.91%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000200	mg/L	<0.000200	<0.000200	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000500	mg/L	0.0000670	0.0000620	0.0000050	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.500	mg/L	197	192	2.77%	20%	----



Sub-Matrix: Water

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Dissolved Metals (QC Lot: 2201064) - continued											
BF2500308-001	MS-HWB-GW-REF3_2025-08-30	Cesium, dissolved	7440-46-2	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Chromium, dissolved	7440-47-3	E421	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	---
		Cobalt, dissolved	7440-48-4	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	---
		Copper, dissolved	7440-50-8	E421	0.00200	mg/L	0.00274	0.00255	0.00019	Diff <2x LOR	---
		Iron, dissolved	7439-89-6	E421	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	---
		Lead, dissolved	7439-92-1	E421	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	---
		Lithium, dissolved	7439-93-2	E421	0.0100	mg/L	0.0123	0.0117	0.0006	Diff <2x LOR	---
		Magnesium, dissolved	7439-95-4	E421	0.0500	mg/L	217	215	0.890%	20%	---
		Manganese, dissolved	7439-96-5	E421	0.00100	mg/L	0.216	0.215	0.156%	20%	---
		Molybdenum, dissolved	7439-98-7	E421	0.000500	mg/L	0.000540	0.000570	0.000030	Diff <2x LOR	---
		Nickel, dissolved	7440-02-0	E421	0.00500	mg/L	0.0215	0.0208	0.00068	Diff <2x LOR	---
		Phosphorus, dissolved	7723-14-0	E421	0.500	mg/L	<0.500	<0.500	0	Diff <2x LOR	---
		Potassium, dissolved	7440-09-7	E421	0.500	mg/L	9.82	9.62	2.01%	20%	---
		Rubidium, dissolved	7440-17-7	E421	0.00200	mg/L	0.0132	0.0132	0.000003	Diff <2x LOR	---
		Selenium, dissolved	7782-49-2	E421	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	---
		Silicon, dissolved	7440-21-3	E421	0.500	mg/L	5.74	5.67	1.19%	20%	---
		Silver, dissolved	7440-22-4	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Sodium, dissolved	7440-23-5	E421	0.500	mg/L	15.7	15.6	1.15%	20%	---
		Strontium, dissolved	7440-24-6	E421	0.00200	mg/L	0.349	0.351	0.617%	20%	---
		Sulfur, dissolved	7704-34-9	E421	5.00	mg/L	8.75	8.20	0.55	Diff <2x LOR	---
		Tellurium, dissolved	13494-80-9	E421	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	---
		Thallium, dissolved	7440-28-0	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Thorium, dissolved	7440-29-1	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	---
		Tin, dissolved	7440-31-5	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	---
Titanium, dissolved	7440-32-6	E421	0.00300	mg/L	<0.00300	<0.00300	0	Diff <2x LOR	---		
Tungsten, dissolved	7440-33-7	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	---		
Uranium, dissolved	7440-61-1	E421	0.000100	mg/L	0.00585	0.00584	0.171%	20%	---		
Vanadium, dissolved	7440-62-2	E421	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	---		
Zinc, dissolved	7440-66-6	E421	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	---		
Zirconium, dissolved	7440-67-7	E421	0.00300	mg/L	<0.00300	<0.00300	0	Diff <2x LOR	---		
Dissolved Metals (QC Lot: 2201321)											
BF2500303-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	---
Dissolved Metals (QC Lot: 2201328)											
BF2500277-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	---



Sub-Matrix: Water

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Volatile Organic Compounds (QC Lot: 2199633)											
BF2500303-001	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	---
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	---
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	---
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	---
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	---
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	0.94	0.92	0.02	Diff <2x LOR	---
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	---
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	---
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	---
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	---
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	---
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	---
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Volatile Organic Compounds (QC Lot: 2199633) - continued											
BF2500303-001	Anonymous	Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	<0.30	0	Diff <2x LOR	----	
Volatile Organic Compounds (QC Lot: 2199778)											
WT2524196-019	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	<1.0	0	Diff <2x LOR



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Volatile Organic Compounds (QC Lot: 2199778) - continued											
WT2524196-019	Anonymous	Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----		
Hydrocarbons (QC Lot: 2199634)											
BF2500303-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	<25	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 2199779)											
WT2524196-019	Anonymous	F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	<25	0	Diff <2x LOR	----



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2193666)						
Turbidity	---	E121	0.1	NTU	<0.10	---
Physical Tests (QCLot: 2193668)						
Solids, total suspended [TSS]	---	E160-L	1	mg/L	<1.0	---
Physical Tests (QCLot: 2193670)						
Solids, total dissolved [TDS]	---	E162	10	mg/L	<10	---
Physical Tests (QCLot: 2199568)						
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	1.5	---
Physical Tests (QCLot: 2199569)						
Conductivity	---	E100	1	µS/cm	1.4	---
Physical Tests (QCLot: 2199618)						
Conductivity	---	E100	1	µS/cm	<1.0	---
Physical Tests (QCLot: 2199619)						
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	<1.0	---
Anions and Nutrients (QCLot: 2199570)						
Bromide	24959-67-9	E235.Br	0.1	mg/L	<0.10	---
Anions and Nutrients (QCLot: 2199571)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 2199572)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 2199573)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	---
Anions and Nutrients (QCLot: 2199574)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 2199575)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 2199612)						
Bromide	24959-67-9	E235.Br	0.1	mg/L	<0.10	---
Anions and Nutrients (QCLot: 2199613)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 2199614)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	---
Anions and Nutrients (QCLot: 2199615)						



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2199615) - continued						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2199616)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2199617)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2201870)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2201871)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2201872)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2201885)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2201887)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2201891)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Dissolved Metals (QCLot: 2201064)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2201064) - continued						
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 2201321)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 2201328)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Aggregate Organics (QCLot: 2204946)						
Oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----
Aggregate Organics (QCLot: 2206490)						
Oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----
Volatile Organic Compounds (QCLot: 2199633)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2199633) - continued						
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2199633) - continued						
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 2199778)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2199778) - continued						
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 2199634)						
F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	----
Hydrocarbons (QCLot: 2199779)						
F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	----
Hydrocarbons (QCLot: 2204975)						
F2 (C10-C16)	----	E601	100	µg/L	<100	----
F3 (C16-C34)	----	E601	250	µg/L	<250	----
F4 (C34-C50)	----	E601	250	µg/L	<250	----
Hydrocarbons (QCLot: 2205708)						
F2 (C10-C16)	----	E601	100	µg/L	<100	----
F3 (C16-C34)	----	E601	250	µg/L	<250	----
F4 (C34-C50)	----	E601	250	µg/L	<250	----
Polycyclic Aromatic Hydrocarbons (QCLot: 2204976)						
Acenaphthene	83-32-9	E641A-L	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A-L	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A-L	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A-L	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A-L	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A-L	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A-L	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 2204976) - continued						
Benzo(g,h,i)perylene	191-24-2	E641A-L	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A-L	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A-L	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A-L	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A-L	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A-L	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A-L	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A-L	0.01	µg/L	<0.010	----
Naphthalene	91-20-3	E641A-L	0.01	µg/L	<0.010	----
Perylene	198-55-0	E641A-L	0.01	µg/L	<0.010	----
Phenanthrene	85-01-8	E641A-L	0.01	µg/L	<0.010	----
Pyrene	129-00-0	E641A-L	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A-L	0.01	µg/L	# 0.015	MB-LOR
Polycyclic Aromatic Hydrocarbons (QCLot: 2205709)						
Acenaphthene	83-32-9	E641A-L	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A-L	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A-L	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A-L	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A-L	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A-L	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A-L	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A-L	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A-L	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A-L	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A-L	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A-L	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A-L	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A-L	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A-L	0.01	µg/L	<0.010	----
Naphthalene	91-20-3	E641A-L	0.01	µg/L	<0.010	----
Perylene	198-55-0	E641A-L	0.01	µg/L	<0.010	----
Phenanthrene	85-01-8	E641A-L	0.01	µg/L	<0.010	----
Pyrene	129-00-0	E641A-L	0.01	µg/L	<0.010	----

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Work Order : BF2500308
Client : Baffinland Iron Mines Corporation
Project : HWB Groundwater



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 2205709) - continued						
Quinoline	91-22-5	E641A-L	0.01	µg/L	<0.010	----

Qualifiers

Qualifier	Description
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2193664)									
pH	---	E108	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 2193666)									
Turbidity	---	E121	0.1	NTU	200 NTU	102	85.0	115	---
Physical Tests (QCLot: 2193668)									
Solids, total suspended [TSS]	---	E160-L	1	mg/L	250 mg/L	99.0	85.0	115	---
Physical Tests (QCLot: 2193670)									
Solids, total dissolved [TDS]	---	E162	10	mg/L	850 mg/L	100	85.0	115	---
Physical Tests (QCLot: 2199568)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	150 mg/L	102	85.0	115	---
Physical Tests (QCLot: 2199569)									
Conductivity	---	E100	1	µS/cm	1410 µS/cm	99.0	90.0	110	---
Physical Tests (QCLot: 2199618)									
Conductivity	---	E100	1	µS/cm	1410 µS/cm	98.9	90.0	110	---
Physical Tests (QCLot: 2199619)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	150 mg/L	100	85.0	115	---
Anions and Nutrients (QCLot: 2199570)									
Bromide	24959-67-9	E235.Br	0.1	mg/L	0.5 mg/L	97.2	85.0	115	---
Anions and Nutrients (QCLot: 2199571)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	101	90.0	110	---
Anions and Nutrients (QCLot: 2199572)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.8	90.0	110	---
Anions and Nutrients (QCLot: 2199573)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	94.8	90.0	110	---
Anions and Nutrients (QCLot: 2199574)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.1	90.0	110	---
Anions and Nutrients (QCLot: 2199575)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	---
Anions and Nutrients (QCLot: 2199612)									
Bromide	24959-67-9	E235.Br	0.1	mg/L	0.5 mg/L	97.3	85.0	115	---
Anions and Nutrients (QCLot: 2199613)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.6	90.0	110	---



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2199614)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 2199615)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2199616)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 2199617)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2201870)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 2201871)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	99.6	80.0	120	----
Anions and Nutrients (QCLot: 2201872)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.5	85.0	115	----
Anions and Nutrients (QCLot: 2201885)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	109	75.0	125	----
Anions and Nutrients (QCLot: 2201887)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.033 mg/L	116	80.0	120	----
Anions and Nutrients (QCLot: 2201891)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.6	85.0	115	----
Dissolved Metals (QCLot: 2201064)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	0.05 mg/L	105	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	103	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.005 mg/L	100	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	0.05 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	0.05 mg/L	100	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.002 mg/L	110	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	103	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	104	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	105	80.0	120	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2201064) - continued									
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.012 mg/L	97.5	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.012 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	0.5 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.005 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	103	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	0.5 mg/L	98.2	60.0	140	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.012 mg/L	104	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	2.5 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.005 mg/L	103	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.005 mg/L	101	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.025 mg/L	103	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.012 mg/L	99.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.005 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.025 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	101	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.005 mg/L	97.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	91.0	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.1	80.0	120	----
Aggregate Organics (QCLot: 2204946)									
Oil & grease (gravimetric)	---	E567	5	mg/L	200 mg/L	81.9	70.0	130	----
Aggregate Organics (QCLot: 2206490)									
Oil & grease (gravimetric)	---	E567	5	mg/L	200 mg/L	105	70.0	130	----
Volatile Organic Compounds (QCLot: 2199633)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	127	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----



Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2199633) - continued									
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	76.2	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	92.9	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	102	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	100	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	104	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	89.4	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	94.5	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	98.0	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	98.0	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	97.1	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	91.4	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	116	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	91.5	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	98.3	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	99.6	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	96.5	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	97.8	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	92.5	70.0	130	----



Sub-Matrix: Water

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2199633) - continued									
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	101	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	101	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	104	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	106	70.0	130	----
Volatile Organic Compounds (QCLot: 2199778)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	# 141	70.0	130	MES
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	99.6	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	73.7	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	86.3	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	91.0	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	97.1	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	92.7	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	97.3	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	98.5	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	95.3	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	99.1	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	95.6	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	97.9	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	87.3	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	98.2	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	92.6	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	98.0	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	96.3	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	97.1	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	99.5	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	102	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	102	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	96.5	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	96.7	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	107	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	# 131	70.0	130	MES



Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2199778) - continued									
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	104	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	97.3	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	95.4	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	92.2	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	114	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	91.1	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	97.3	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	88.3	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	95.9	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	94.3	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	89.0	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	92.0	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	93.4	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	97.1	70.0	130	----
Hydrocarbons (QCLot: 2199634)									
F1 (C6-C10)	---	E581.F1-L	25	µg/L	2000 µg/L	97.7	80.0	120	----
Hydrocarbons (QCLot: 2199779)									
F1 (C6-C10)	---	E581.F1-L	25	µg/L	2000 µg/L	101	80.0	120	----
Hydrocarbons (QCLot: 2204975)									
F2 (C10-C16)	---	E601	100	µg/L	3770 µg/L	110	70.0	130	----
F3 (C16-C34)	---	E601	250	µg/L	7760 µg/L	120	70.0	130	----
F4 (C34-C50)	---	E601	250	µg/L	4200 µg/L	109	70.0	130	----
Hydrocarbons (QCLot: 2205708)									
F2 (C10-C16)	---	E601	100	µg/L	3770 µg/L	97.8	70.0	130	----
F3 (C16-C34)	---	E601	250	µg/L	7760 µg/L	106	70.0	130	----
F4 (C34-C50)	---	E601	250	µg/L	4200 µg/L	113	70.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 2204976)									
Acenaphthene	83-32-9	E641A-L	0.01	µg/L	0.526 µg/L	96.8	50.0	140	----
Acenaphthylene	208-96-8	E641A-L	0.01	µg/L	0.526 µg/L	89.5	50.0	140	----
Acridine	260-94-6	E641A-L	0.01	µg/L	0.526 µg/L	109	50.0	140	----
Anthracene	120-12-7	E641A-L	0.01	µg/L	0.526 µg/L	86.4	50.0	140	----
Benz(a)anthracene	56-55-3	E641A-L	0.01	µg/L	0.526 µg/L	106	50.0	140	----
Benzo(a)pyrene	50-32-8	E641A-L	0.005	µg/L	0.526 µg/L	86.1	50.0	140	----
Benzo(b+j)fluoranthene	n/a	E641A-L	0.01	µg/L	0.526 µg/L	79.5	50.0	140	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 2204976) - continued									
Benzo(g,h,i)perylene	191-24-2	E641A-L	0.01	µg/L	0.526 µg/L	109	50.0	140	----
Benzo(k)fluoranthene	207-08-9	E641A-L	0.01	µg/L	0.526 µg/L	83.2	50.0	140	----
Chrysene	218-01-9	E641A-L	0.01	µg/L	0.526 µg/L	104	50.0	140	----
Dibenz(a,h)anthracene	53-70-3	E641A-L	0.005	µg/L	0.526 µg/L	113	50.0	140	----
Fluoranthene	206-44-0	E641A-L	0.01	µg/L	0.526 µg/L	100	50.0	140	----
Fluorene	86-73-7	E641A-L	0.01	µg/L	0.526 µg/L	96.7	50.0	140	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L	0.01	µg/L	0.526 µg/L	121	50.0	140	----
Methylnaphthalene, 1-	90-12-0	E641A-L	0.01	µg/L	0.526 µg/L	94.5	50.0	140	----
Methylnaphthalene, 2-	91-57-6	E641A-L	0.01	µg/L	0.526 µg/L	99.7	50.0	140	----
Naphthalene	91-20-3	E641A-L	0.01	µg/L	0.526 µg/L	94.8	50.0	140	----
Perylene	198-55-0	E641A-L	0.01	µg/L	0.526 µg/L	97.2	50.0	140	----
Phenanthrene	85-01-8	E641A-L	0.01	µg/L	0.526 µg/L	102	50.0	140	----
Pyrene	129-00-0	E641A-L	0.01	µg/L	0.526 µg/L	100	50.0	140	----
Quinoline	91-22-5	E641A-L	0.01	µg/L	0.526 µg/L	108	50.0	140	----
Polycyclic Aromatic Hydrocarbons (QCLot: 2205709)									
Acenaphthene	83-32-9	E641A-L	0.01	µg/L	0.526 µg/L	103	50.0	140	----
Acenaphthylene	208-96-8	E641A-L	0.01	µg/L	0.526 µg/L	95.5	50.0	140	----
Acridine	260-94-6	E641A-L	0.01	µg/L	0.526 µg/L	122	50.0	140	----
Anthracene	120-12-7	E641A-L	0.01	µg/L	0.526 µg/L	88.7	50.0	140	----
Benz(a)anthracene	56-55-3	E641A-L	0.01	µg/L	0.526 µg/L	102	50.0	140	----
Benzo(a)pyrene	50-32-8	E641A-L	0.005	µg/L	0.526 µg/L	82.5	50.0	140	----
Benzo(b+j)fluoranthene	n/a	E641A-L	0.01	µg/L	0.526 µg/L	76.0	50.0	140	----
Benzo(g,h,i)perylene	191-24-2	E641A-L	0.01	µg/L	0.526 µg/L	102	50.0	140	----
Benzo(k)fluoranthene	207-08-9	E641A-L	0.01	µg/L	0.526 µg/L	87.3	50.0	140	----
Chrysene	218-01-9	E641A-L	0.01	µg/L	0.526 µg/L	111	50.0	140	----
Dibenz(a,h)anthracene	53-70-3	E641A-L	0.005	µg/L	0.526 µg/L	89.5	50.0	140	----
Fluoranthene	206-44-0	E641A-L	0.01	µg/L	0.526 µg/L	107	50.0	140	----
Fluorene	86-73-7	E641A-L	0.01	µg/L	0.526 µg/L	104	50.0	140	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L	0.01	µg/L	0.526 µg/L	95.4	50.0	140	----
Methylnaphthalene, 1-	90-12-0	E641A-L	0.01	µg/L	0.526 µg/L	100	50.0	140	----
Methylnaphthalene, 2-	91-57-6	E641A-L	0.01	µg/L	0.526 µg/L	105	50.0	140	----
Naphthalene	91-20-3	E641A-L	0.01	µg/L	0.526 µg/L	100	50.0	140	----
Perylene	198-55-0	E641A-L	0.01	µg/L	0.526 µg/L	91.8	50.0	140	----
Phenanthrene	85-01-8	E641A-L	0.01	µg/L	0.526 µg/L	109	50.0	140	----
Pyrene	129-00-0	E641A-L	0.01	µg/L	0.526 µg/L	107	50.0	140	----
Quinoline	91-22-5	E641A-L	0.01	µg/L	0.526 µg/L	107	50.0	140	----



Sub-Matrix: **Water**

<i>Laboratory Control Sample (LCS) Report</i>			
<i>Spike</i>	<i>Recovery (%)</i>	<i>Recovery Limits (%)</i>	
<i>Target Concentration</i>	<i>LCS</i>	<i>Low</i>	<i>High</i>

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>

Qualifiers

<i>Qualifier</i>	<i>Description</i>
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2199570)										
BF2500299-001	Anonymous	Bromide	24959-67-9	E235.Br	0.46 mg/L	0.5 mg/L	91.3	75.0	125	----
Anions and Nutrients (QCLot: 2199571)										
BF2500299-001	Anonymous	Fluoride	16984-48-8	E235.F	0.901 mg/L	1 mg/L	90.1	75.0	125	----
Anions and Nutrients (QCLot: 2199572)										
BF2500299-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.40 mg/L	2.5 mg/L	96.1	75.0	125	----
Anions and Nutrients (QCLot: 2199573)										
BF2500299-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.466 mg/L	0.5 mg/L	93.3	75.0	125	----
Anions and Nutrients (QCLot: 2199574)										
BF2500299-001	Anonymous	Chloride	16887-00-6	E235.Cl	97.0 mg/L	100 mg/L	97.0	75.0	125	----
Anions and Nutrients (QCLot: 2199575)										
BF2500299-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	96.4 mg/L	100 mg/L	96.4	75.0	125	----
Anions and Nutrients (QCLot: 2199612)										
BF2500308-009	HWB-KP23-03_2025-08-30	Bromide	24959-67-9	E235.Br	0.42 mg/L	0.5 mg/L	84.6	75.0	125	----
Anions and Nutrients (QCLot: 2199613)										
BF2500308-009	HWB-KP23-03_2025-08-30	Nitrate (as N)	14797-55-8	E235.NO3	2.39 mg/L	2.5 mg/L	95.8	75.0	125	----
Anions and Nutrients (QCLot: 2199614)										
BF2500308-009	HWB-KP23-03_2025-08-30	Nitrite (as N)	14797-65-0	E235.NO2	0.470 mg/L	0.5 mg/L	94.0	75.0	125	----
Anions and Nutrients (QCLot: 2199615)										
BF2500308-009	HWB-KP23-03_2025-08-30	Sulfate (as SO4)	14808-79-8	E235.SO4	99.1 mg/L	100 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 2199616)										
BF2500308-009	HWB-KP23-03_2025-08-30	Chloride	16887-00-6	E235.Cl	99.3 mg/L	100 mg/L	99.3	75.0	125	----
Anions and Nutrients (QCLot: 2199617)										
BF2500308-009	HWB-KP23-03_2025-08-30	Fluoride	16984-48-8	E235.F	0.850 mg/L	1 mg/L	85.0	75.0	125	----
Anions and Nutrients (QCLot: 2201870)										
BF2500303-002	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	2.62 mg/L	2.5 mg/L	105	70.0	130	----
Anions and Nutrients (QCLot: 2201871)										
BF2500303-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0965 mg/L	0.1 mg/L	96.5	70.0	130	----
Anions and Nutrients (QCLot: 2201872)										
BF2500304-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2201885)										



Sub-Matrix: Water

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2201885) - continued										
BF2500308-011	HWB-KP22-05_2025-08-30	Kjeldahl nitrogen, total [TKN]	---	E318	3.08 mg/L	2.5 mg/L	123	70.0	130	---
Anions and Nutrients (QCLot: 2201887)										
BF2500308-010	MS-HWB-GW-REF1_2025-08-30	Phosphorus, total	7723-14-0	E372-U	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	---
Anions and Nutrients (QCLot: 2201891)										
BF2500311-008	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.107 mg/L	0.1 mg/L	107	75.0	125	---
Dissolved Metals (QCLot: 2201064)										
BF2500308-004	MS-HWB-GW5_2025-08-30	Aluminum, dissolved	7429-90-5	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	---
		Antimony, dissolved	7440-36-0	E421	0.0502 mg/L	0.05 mg/L	100	70.0	130	---
		Arsenic, dissolved	7440-38-2	E421	0.0568 mg/L	0.05 mg/L	114	70.0	130	---
		Barium, dissolved	7440-39-3	E421	ND mg/L	---	ND	70.0	130	---
		Beryllium, dissolved	7440-41-7	E421	0.00500 mg/L	0.005 mg/L	100	70.0	130	---
		Bismuth, dissolved	7440-69-9	E421	0.0447 mg/L	0.05 mg/L	89.3	70.0	130	---
		Boron, dissolved	7440-42-8	E421	0.044 mg/L	0.05 mg/L	87.9	70.0	130	---
		Cadmium, dissolved	7440-43-9	E421	0.00533 mg/L	0.005 mg/L	106	70.0	130	---
		Calcium, dissolved	7440-70-2	E421	ND mg/L	---	ND	70.0	130	---
		Cesium, dissolved	7440-46-2	E421	0.00263 mg/L	0.002 mg/L	105	70.0	130	---
		Chromium, dissolved	7440-47-3	E421	0.0125 mg/L	0.012 mg/L	100	70.0	130	---
		Cobalt, dissolved	7440-48-4	E421	0.0122 mg/L	0.012 mg/L	97.8	70.0	130	---
		Copper, dissolved	7440-50-8	E421	0.0121 mg/L	0.012 mg/L	96.9	70.0	130	---
		Iron, dissolved	7439-89-6	E421	0.049 mg/L	0.05 mg/L	97.5	70.0	130	---
		Lead, dissolved	7439-92-1	E421	0.0243 mg/L	0.025 mg/L	97.1	70.0	130	---
		Lithium, dissolved	7439-93-2	E421	0.0125 mg/L	0.012 mg/L	99.7	70.0	130	---
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	---	ND	70.0	130	---
		Manganese, dissolved	7439-96-5	E421	ND mg/L	---	ND	70.0	130	---
		Molybdenum, dissolved	7439-98-7	E421	0.0135 mg/L	0.012 mg/L	108	70.0	130	---
		Nickel, dissolved	7440-02-0	E421	0.0232 mg/L	0.025 mg/L	92.8	70.0	130	---
		Phosphorus, dissolved	7723-14-0	E421	0.577 mg/L	0.5 mg/L	115	70.0	130	---
		Potassium, dissolved	7440-09-7	E421	2.57 mg/L	2.5 mg/L	103	70.0	130	---
		Rubidium, dissolved	7440-17-7	E421	ND mg/L	---	ND	70.0	130	---
		Selenium, dissolved	7782-49-2	E421	0.0604 mg/L	0.05 mg/L	121	70.0	130	---
		Silicon, dissolved	7440-21-3	E421	ND mg/L	---	ND	70.0	130	---
		Silver, dissolved	7440-22-4	E421	0.00500 mg/L	0.005 mg/L	99.9	70.0	130	---
		Sodium, dissolved	7440-23-5	E421	ND mg/L	---	ND	70.0	130	---
		Strontium, dissolved	7440-24-6	E421	ND mg/L	---	ND	70.0	130	---
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	---	ND	70.0	130	---
		Tellurium, dissolved	13494-80-9	E421	0.00542 mg/L	0.005 mg/L	108	70.0	130	---
		Thallium, dissolved	7440-28-0	E421	0.0473 mg/L	0.05 mg/L	94.7	70.0	130	---
		Thorium, dissolved	7440-29-1	E421	0.00466 mg/L	0.005 mg/L	93.2	70.0	130	---
		Tin, dissolved	7440-31-5	E421	0.0255 mg/L	0.025 mg/L	102	70.0	130	---
		Titanium, dissolved	7440-32-6	E421	0.0123 mg/L	0.012 mg/L	98.4	70.0	130	---
		Tungsten, dissolved	7440-33-7	E421	0.00503 mg/L	0.005 mg/L	101	70.0	130	---
		Uranium, dissolved	7440-61-1	E421	ND mg/L	---	ND	70.0	130	---



Sub-Matrix: Water

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 2201064) - continued										
BF2500308-004	MS-HWB-GW5_2025-08-30	Vanadium, dissolved	7440-62-2	E421	0.0258 mg/L	0.025 mg/L	103	70.0	130	---
		Zinc, dissolved	7440-66-6	E421	0.0262 mg/L	0.025 mg/L	105	70.0	130	---
		Zirconium, dissolved	7440-67-7	E421	0.00497 mg/L	0.005 mg/L	99.4	70.0	130	---
Dissolved Metals (QCLot: 2201321)										
BF2500303-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000899 mg/L	0 mg/L	89.9	70.0	130	---
Dissolved Metals (QCLot: 2201328)										
BF2500278-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000828 mg/L	0 mg/L	82.8	70.0	130	---
Volatile Organic Compounds (QCLot: 2199633)										
BF2500303-001	Anonymous	Acetone	67-64-1	E611D	110 µg/L	100 µg/L	110	60.0	140	---
		Benzene	71-43-2	E611D	95.1 µg/L	100 µg/L	95.1	60.0	140	---
		Bromodichloromethane	75-27-4	E611D	86.9 µg/L	100 µg/L	86.9	60.0	140	---
		Bromoform	75-25-2	E611D	94.0 µg/L	100 µg/L	94.0	60.0	140	---
		Bromomethane	74-83-9	E611D	63.0 µg/L	100 µg/L	63.0	60.0	140	---
		Carbon disulfide	75-15-0	E611D	80.5 µg/L	100 µg/L	80.5	60.0	140	---
		Carbon tetrachloride	56-23-5	E611D	92.8 µg/L	100 µg/L	92.8	60.0	140	---
		Chlorobenzene	108-90-7	E611D	91.6 µg/L	100 µg/L	91.6	60.0	140	---
		Chloroethane	75-00-3	E611D	84.5 µg/L	100 µg/L	84.5	60.0	140	---
		Chloroform	67-66-3	E611D	89.6 µg/L	100 µg/L	89.6	60.0	140	---
		Chloromethane	74-87-3	E611D	82.7 µg/L	100 µg/L	82.7	60.0	140	---
		Dibromochloromethane	124-48-1	E611D	88.8 µg/L	100 µg/L	88.8	60.0	140	---
		Dibromoethane, 1,2-	106-93-4	E611D	74.6 µg/L	100 µg/L	74.6	60.0	140	---
		Dichlorobenzene, 1,2-	95-50-1	E611D	94.1 µg/L	100 µg/L	94.1	60.0	140	---
		Dichlorobenzene, 1,3-	541-73-1	E611D	96.1 µg/L	100 µg/L	96.1	60.0	140	---
		Dichlorobenzene, 1,4-	106-46-7	E611D	96.7 µg/L	100 µg/L	96.7	60.0	140	---
		Dichlorodifluoromethane	75-71-8	E611D	72.2 µg/L	100 µg/L	72.2	60.0	140	---
		Dichloroethane, 1,1-	75-34-3	E611D	88.9 µg/L	100 µg/L	88.9	60.0	140	---
		Dichloroethane, 1,2-	107-06-2	E611D	84.0 µg/L	100 µg/L	84.0	60.0	140	---
		Dichloroethylene, 1,1-	75-35-4	E611D	90.6 µg/L	100 µg/L	90.6	60.0	140	---
		Dichloroethylene, cis-1,2-	156-59-2	E611D	89.0 µg/L	100 µg/L	89.0	60.0	140	---
		Dichloroethylene, trans-1,2-	156-60-5	E611D	91.6 µg/L	100 µg/L	91.6	60.0	140	---
		Dichloromethane	75-09-2	E611D	83.4 µg/L	100 µg/L	83.4	60.0	140	---
		Dichloropropane, 1,2-	78-87-5	E611D	86.6 µg/L	100 µg/L	86.6	60.0	140	---
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	82.4 µg/L	100 µg/L	82.4	60.0	140	---
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	82.8 µg/L	100 µg/L	82.8	60.0	140	---
		Ethylbenzene	100-41-4	E611D	97.2 µg/L	100 µg/L	97.2	60.0	140	---
		Hexane, n-	110-54-3	E611D	90.3 µg/L	100 µg/L	90.3	60.0	140	---
		Hexanone, 2-	591-78-6	E611D	70 µg/L	100 µg/L	69.8	60.0	140	---
		Methyl ethyl ketone [MEK]	78-93-3	E611D	89 µg/L	100 µg/L	89.1	60.0	140	---
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	70 µg/L	100 µg/L	69.6	60.0	140	---
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	92.1 µg/L	100 µg/L	92.1	60.0	140	---
		Styrene	100-42-5	E611D	87.5 µg/L	100 µg/L	87.5	60.0	140	---
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	85.1 µg/L	100 µg/L	85.1	60.0	140	---
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	93.3 µg/L	100 µg/L	93.3	60.0	140	---



Sub-Matrix: Water

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2199633) - continued										
BF2500303-001	Anonymous	Tetrachloroethylene	127-18-4	E611D	95.8 µg/L	100 µg/L	95.8	60.0	140	----
		Toluene	108-88-3	E611D	95.7 µg/L	100 µg/L	95.7	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	87.8 µg/L	100 µg/L	87.8	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	78.0 µg/L	100 µg/L	78.0	60.0	140	----
		Trichloroethylene	79-01-6	E611D	91.8 µg/L	100 µg/L	91.8	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	87.3 µg/L	100 µg/L	87.3	60.0	140	----
		Vinyl chloride	75-01-4	E611D	82.8 µg/L	100 µg/L	82.8	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	191 µg/L	200 µg/L	95.6	60.0	140	----
		Xylene, o-	95-47-6	E611D	95.8 µg/L	100 µg/L	95.8	60.0	140	----
Volatile Organic Compounds (QCLot: 2199778)										
WT2524196-019	Anonymous	Acetone	67-64-1	E611D	138 µg/L	100 µg/L	138	60.0	140	----
		Benzene	71-43-2	E611D	97.3 µg/L	100 µg/L	97.3	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	95.6 µg/L	100 µg/L	95.6	60.0	140	----
		Bromoform	75-25-2	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Bromomethane	74-83-9	E611D	67.7 µg/L	100 µg/L	67.7	60.0	140	----
		Carbon disulfide	75-15-0	E611D	79.5 µg/L	100 µg/L	79.5	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	86.0 µg/L	100 µg/L	86.0	60.0	140	----
		Chlorobenzene	108-90-7	E611D	92.3 µg/L	100 µg/L	92.3	60.0	140	----
		Chloroethane	75-00-3	E611D	85.9 µg/L	100 µg/L	85.9	60.0	140	----
		Chloroform	67-66-3	E611D	93.2 µg/L	100 µg/L	93.2	60.0	140	----
		Chloromethane	74-87-3	E611D	89.1 µg/L	100 µg/L	89.1	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	99.8 µg/L	100 µg/L	99.8	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	90.8 µg/L	100 µg/L	90.8	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	94.2 µg/L	100 µg/L	94.2	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	90.9 µg/L	100 µg/L	90.9	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	93.0 µg/L	100 µg/L	93.0	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	75.0 µg/L	100 µg/L	75.0	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	90.5 µg/L	100 µg/L	90.5	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	86.8 µg/L	100 µg/L	86.8	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	93.9 µg/L	100 µg/L	93.9	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	90.8 µg/L	100 µg/L	90.8	60.0	140	----
		Dichloromethane	75-09-2	E611D	92.7 µg/L	100 µg/L	92.7	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	94.8 µg/L	100 µg/L	94.8	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	94.9 µg/L	100 µg/L	94.9	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	95.4 µg/L	100 µg/L	95.4	60.0	140	----
		Ethylbenzene	100-41-4	E611D	91.4 µg/L	100 µg/L	91.4	60.0	140	----
		Hexane, n-	110-54-3	E611D	83.4 µg/L	100 µg/L	83.4	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	98 µg/L	100 µg/L	98.6	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	127 µg/L	100 µg/L	127	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	100 µg/L	100 µg/L	99.7	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	92.0 µg/L	100 µg/L	92.0	60.0	140	----
		Styrene	100-42-5	E611D	90.0 µg/L	100 µg/L	90.0	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	87.5 µg/L	100 µg/L	87.5	60.0	140	----



Sub-Matrix: Water

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2199778) - continued										
WT2524196-019	Anonymous	Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	108 µg/L	100 µg/L	108	60.0	140	---
		Tetrachloroethylene	127-18-4	E611D	86.2 µg/L	100 µg/L	86.2	60.0	140	----
		Toluene	108-88-3	E611D	92.3 µg/L	100 µg/L	92.3	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	83.4 µg/L	100 µg/L	83.4	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	91.3 µg/L	100 µg/L	91.3	60.0	140	----
		Trichloroethylene	79-01-6	E611D	89.1 µg/L	100 µg/L	89.1	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	82.2 µg/L	100 µg/L	82.2	60.0	140	----
		Vinyl chloride	75-01-4	E611D	83.6 µg/L	100 µg/L	83.6	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	178 µg/L	200 µg/L	89.0	60.0	140	----
Xylene, o-	95-47-6	E611D	92.5 µg/L	100 µg/L	92.5	60.0	140	----		
Hydrocarbons (QCLot: 2199634)										
BF2500303-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	1780 µg/L	2000 µg/L	88.8	60.0	140	----
Hydrocarbons (QCLot: 2199779)										
WT2524196-019	Anonymous	F1 (C6-C10)	----	E581.F1-L	1660 µg/L	2000 µg/L	83.1	60.0	140	----

Sample Details				Field Data			Analysis Requested													
Sample ID (sys_sample_code)	Location (sys_loc_code)	Sample Date and Time	Matrix	Temperature, Field (deg C)	pH, Field	Total # of Containers (pH units)	ALS_GW_HWB													
HWB-KP23-03_2025-08-30	HWB-KP23-03	8/30/2025 3:30:00 PM	WG	1.3	7.14	11	X													
MS-HWB-GW-REF1_2025-08-30	MS-HWB-GW-REF1	8/30/2025 4:45:00 PM	WG	2.1	7.28	11	X													
HWB-KP22-05_2025-08-30	HWB-KP22-05	8/30/2025 5:00:00 PM	WG	2.2	7	11	X													

Relinquished by:	Bradley Rasmussen	Date:	
Additional Comments			
Initial Shipment Reception (lab use only)		Final Shipment Reception (lab use only)	
Received by:		Received by:	
Date/Time:		Date/Time:	

Sample Details				Field Data			Analysis Requested													
Sample ID (sys_sample_code)	Location (sys_loc_code)	Sample Date and Time	Matrix	Temperature, Field (deg C)	pH, Field (pH units)	Total # of Containers	ALS_GW_HWB													
HWB-KP23-03_2025-08-30	HWB-KP23-03	8/30/2025 3:30:00 PM	WG	1.3	7.14	11	X													
MS-HWB-GW-REF1_2025-08-30	MS-HWB-GW-REF1	8/30/2025 4:45:00 PM	WG	2.1	7.28	11	X													
HWB-KP22-05_2025-08-30	HWB-KP22-05	8/30/2025 5:00:00 PM	WG	2.2	7	11	X													

Relinquished by:	Bradley Rasmussen	Date:	
Additional Comments			
Initial Shipment Reception (lab use only)		Final Shipment Reception (lab use only)	
Received by:		Received by:	<i>[Signature]</i>
Date/Time:		Date/Time:	Sept 25 9:00 15.3°C

CERTIFICATE OF ANALYSIS (GUIDELINE EVALUATION)

Work Order	: BF2500317		
Client	: Baffinland Iron Mines Corporation	Laboratory	: ALS Environmental - Baffin Island
Contact	: Environmental Lab Results	Account Manager	: Rick Hawthorne
Address	: 360 Oakville Place Dr Suite 300 Oakville Ontario Canada L6H 6K8	Address	: Mary River, Qikqtani Region Baffin Island NU Canada
Telephone	: ----	Telephone	:
Project	: HWB Groundwater	Date Samples Received	: 04-Sep-2025 11:57
PO	: 4500156571	Date Analysis Commenced	: 05-Sep-2025
C-O-C number	: 25 09 02 - MS_HWB_GW	Issue Date	: 24-Sep-2025 13:24
Sampler	: ET, LG		
Site	: ----		
Quote number	: 2024-2025 Scope of Work		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Guideline Comparison

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Amaninder Dhillon	Team Lead - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Cedrick Velasco	Lab Manager	Inorganics, Baffin Island, Nunavut
Danielle Gravel	Supervisor - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
David Tremblett	VOC Section Supervisor	VOC, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Rachel Cameron	Supervisor - Semi-Volatile Extractions	Organics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Metals, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario



No Breaches Found

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guidelines are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.

Key: LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	no units
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

>: greater than.

<: less than.

Red shading is applied where the result or the LOR is greater than the Guideline Upper Limit (or lower than the Guideline Lower Limit, if applicable).
For drinking water samples, Red shading is applied where the result for E.coli, fecal or total coliforms is greater than or equal to the Guideline Upper Limit.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).



Analytical Results Evaluation

Matrix: Water

				Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----
				Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----	----	----
				Sub-Matrix	Water	Water	Water	----	----	----	----
Analyte	CAS Number	Method/Lab	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----	----
				Result	Result	Result	----	----	----	----	----
Physical Tests											
Conductivity	----	E100/WT	µS/cm	409	353	324	----	----	----	----	----
pH	----	E108/BF	pH units	7.82	8.07	8.00	----	----	----	----	----
Solids, total dissolved [TDS]	----	E162/BF	mg/L	163	200	178	----	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/BF	mg/L	<1.0	1.4	1.9	----	----	----	----	----
Turbidity	----	E121/BF	NTU	0.79	2.06	2.21	----	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	mg/L	197	155	153	----	----	----	----	----
Anions and Nutrients											
Ammonia, total (as N)	7664-41-7	E298/WT	mg/L	<0.0050	<0.0050	0.0082	----	----	----	----	----
Bromide	24959-67-9	E235.Br/WT	mg/L	<0.10	<0.10	<0.10	----	----	----	----	----
Chloride	16887-00-6	E235.Cl/WT	mg/L	15.3	6.80	5.04	----	----	----	----	----
Fluoride	16984-48-8	E235.F/WT	mg/L	0.032	0.049	0.042	----	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	mg/L	0.112	0.175	0.136	----	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	mg/L	0.082	1.00	0.573	----	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	mg/L	<0.010	<0.010	<0.010	----	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	mg/L	0.0071	0.0070	0.0053	----	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	mg/L	9.65	23.7	16.3	----	----	----	----	----
Dissolved Metals											
Aluminum, dissolved	7429-90-5	E421/WT	mg/L	0.0024	0.0019	0.0017	----	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WT	mg/L	<0.00010	<0.00010	<0.00010	----	----	----	----	----



Matrix: Water

				MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----	
				Client sample ID	----	----	----	----	----	----	
				Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----	----	----
				Sub-Matrix	Water	Water	Water	----	----	----	----
Analyte	CAS Number	Method/Lab	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----	
				Result	Result	Result	----	----	----	----	
Dissolved Metals											
Arsenic, dissolved	7440-38-2	E421/WT	mg/L	0.00026	0.00032	0.00022	----	----	----	----	
Barium, dissolved	7440-39-3	E421/WT	mg/L	0.0195	0.0198	0.0198	----	----	----	----	
Beryllium, dissolved	7440-41-7	E421/WT	mg/L	<0.000020	<0.000020	<0.000020	----	----	----	----	
Bismuth, dissolved	7440-69-9	E421/WT	mg/L	<0.000050	<0.000050	<0.000050	----	----	----	----	
Boron, dissolved	7440-42-8	E421/WT	mg/L	0.029	0.026	0.018	----	----	----	----	
Cadmium, dissolved	7440-43-9	E421/WT	mg/L	0.0000060	<0.0000050	<0.0000050	----	----	----	----	
Calcium, dissolved	7440-70-2	E421/WT	mg/L	29.7	21.0	21.9	----	----	----	----	
Cesium, dissolved	7440-46-2	E421/WT	mg/L	<0.000010	<0.000010	<0.000010	----	----	----	----	
Chromium, dissolved	7440-47-3	E421/WT	mg/L	0.00051	0.00088	0.00118	----	----	----	----	
Cobalt, dissolved	7440-48-4	E421/WT	mg/L	<0.00010	<0.00010	<0.00010	----	----	----	----	
Copper, dissolved	7440-50-8	E421/WT	mg/L	0.00203	0.00153	0.00138	----	----	----	----	
Iron, dissolved	7439-89-6	E421/WT	mg/L	<0.010	<0.010	<0.010	----	----	----	----	
Lead, dissolved	7439-92-1	E421/WT	mg/L	0.000056	<0.000050	0.000491	----	----	----	----	
Lithium, dissolved	7439-93-2	E421/WT	mg/L	0.0032	0.0030	0.0023	----	----	----	----	
Magnesium, dissolved	7439-95-4	E421/WT	mg/L	33.2	21.7	19.6	----	----	----	----	
Manganese, dissolved	7439-96-5	E421/WT	mg/L	0.00223	0.00217	<0.00010	----	----	----	----	
Mercury, dissolved	7439-97-6	E509/WT	mg/L	<0.0000050	<0.0000050	<0.0000050	----	----	----	----	
Molybdenum, dissolved	7439-98-7	E421/WT	mg/L	0.00191	0.00154	0.00110	----	----	----	----	
Nickel, dissolved	7440-02-0	E421/WT	mg/L	0.00615	0.00498	0.00460	----	----	----	----	



Matrix: Water

				MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----	
				Client sample ID	----	----	----	----	----	----	
				Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----	----	----
				Sub-Matrix	Water	Water	Water	----	----	----	----
Analyte	CAS Number	Method/Lab	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----	
				Result	Result	Result	----	----	----	----	
Dissolved Metals											
Phosphorus, dissolved	7723-14-0	E421/WT	mg/L	<0.050	<0.050	<0.050	----	----	----	----	
Potassium, dissolved	7440-09-7	E421/WT	mg/L	2.02	3.10	2.43	----	----	----	----	
Rubidium, dissolved	7440-17-7	E421/WT	mg/L	0.00369	0.00274	0.00539	----	----	----	----	
Selenium, dissolved	7782-49-2	E421/WT	mg/L	0.000072	0.000169	0.000109	----	----	----	----	
Silicon, dissolved	7440-21-3	E421/WT	mg/L	4.71	5.41	4.89	----	----	----	----	
Silver, dissolved	7440-22-4	E421/WT	mg/L	<0.000010	<0.000010	<0.000010	----	----	----	----	
Sodium, dissolved	7440-23-5	E421/WT	mg/L	4.07	18.7	15.7	----	----	----	----	
Strontium, dissolved	7440-24-6	E421/WT	mg/L	0.0211	0.0192	0.0141	----	----	----	----	
Sulfur, dissolved	7704-34-9	E421/WT	mg/L	3.91	8.82	5.91	----	----	----	----	
Tellurium, dissolved	13494-80-9	E421/WT	mg/L	<0.00020	<0.00020	<0.00020	----	----	----	----	
Thallium, dissolved	7440-28-0	E421/WT	mg/L	0.000012	<0.000010	0.000011	----	----	----	----	
Thorium, dissolved	7440-29-1	E421/WT	mg/L	<0.00010	<0.00010	<0.00010	----	----	----	----	
Tin, dissolved	7440-31-5	E421/WT	mg/L	0.00029	0.00036	0.00017	----	----	----	----	
Titanium, dissolved	7440-32-6	E421/WT	mg/L	<0.00030	<0.00030	<0.00030	----	----	----	----	
Tungsten, dissolved	7440-33-7	E421/WT	mg/L	<0.00010	<0.00010	<0.00010	----	----	----	----	
Uranium, dissolved	7440-61-1	E421/WT	mg/L	0.00109	0.000696	0.000662	----	----	----	----	
Vanadium, dissolved	7440-62-2	E421/WT	mg/L	<0.00050	<0.00050	<0.00050	----	----	----	----	
Zinc, dissolved	7440-66-6	E421/WT	mg/L	<0.0010	<0.0010	<0.0010	----	----	----	----	
Zirconium, dissolved	7440-67-7	E421/WT	mg/L	0.00040	<0.00030	<0.00030	----	----	----	----	



Matrix: Water

				MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----
<i>Client sample ID</i>				----	----	----	----	----	----	----
<i>Client sampling date / time</i>				02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----	----	----
<i>Sub-Matrix</i>				Water	Water	Water	----	----	----	----
<i>Analyte</i>	<i>CAS Number</i>	<i>Method/Lab</i>	<i>Unit</i>	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----
				Result	Result	Result	----	----	----	----
Dissolved Metals										
Dissolved mercury filtration location	----	EP509/WT	-	Field	Field	Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WT	-	Field	Field	Field	----	----	----	----
Aggregate Organics										
Oil & grease (gravimetric)	----	E567/WT	mg/L	<5.0	<5.0	<5.0	----	----	----	----
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	µg/L	<20	<20	<20	----	----	----	----
Benzene	71-43-2	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
Bromoform	75-25-2	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
Bromomethane	74-83-9	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
BTEX, total	----	E611D/WT	µg/L	<1.0	<1.0	<1.0	----	----	----	----
Carbon disulfide	75-15-0	E611D/WT	µg/L	<1.0	<1.0	<1.0	----	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	µg/L	<0.20	<0.20	<0.20	----	----	----	----
Chlorobenzene	108-90-7	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
Chloroethane	75-00-3	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
Chloroform	67-66-3	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
Chloromethane	74-87-3	E611D/WT	µg/L	<2.0	<2.0	<2.0	----	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	µg/L	<0.20	<0.20	<0.20	----	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----



Matrix: Water

				MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----	
				Client sample ID	----	----	----	----	----	----	
				Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----	----	----
				Sub-Matrix	Water	Water	Water	----	----	----	----
Analyte	CAS Number	Method/Lab	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----	
				Result	Result	Result	----	----	----	----	
Volatile Organic Compounds											
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichlorodifluoromethane	75-71-8	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichloroethane, 1,1-	75-34-3	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichloroethane, 1,2-	107-06-2	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichloroethylene, 1,1-	75-35-4	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	µg/L	<0.71	<0.71	<0.71	----	----	----	----	
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichloromethane	75-09-2	E611D/WT	µg/L	<1.0	<1.0	<1.0	----	----	----	----	
Dichloropropane, 1,2-	78-87-5	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	µg/L	<0.30	<0.30	<0.30	----	----	----	----	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	µg/L	<0.5	<0.5	<0.5	----	----	----	----	
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	µg/L	<0.30	<0.30	<0.30	----	----	----	----	
Ethylbenzene	100-41-4	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Hexane, n-	110-54-3	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Hexanone, 2-	591-78-6	E611D/WT	µg/L	<20	<20	<20	----	----	----	----	
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	µg/L	<20	<20	<20	----	----	----	----	
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	µg/L	<20	<20	<20	----	----	----	----	



Matrix: Water

				MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----	
				Client sample ID	----	----	----	----	----	----	
				Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----	----	----
				Sub-Matrix	Water	Water	Water	----	----	----	----
Analyte	CAS Number	Method/Lab	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----	
				Result	Result	Result	----	----	----	----	
Volatile Organic Compounds											
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Styrene	100-42-5	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Tetrachloroethylene	127-18-4	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Toluene	108-88-3	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Trichloroethylene	79-01-6	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Trichlorofluoromethane	75-69-4	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Trihalomethanes [THMs], total	----	E611D/WT	µg/L	<1.0	<1.0	<1.0	----	----	----	----	
Vinyl chloride	75-01-4	E611D/WT	µg/L	<0.20	<0.20	<0.20	----	----	----	----	
Xylene, m+p-	179601-23-1	E611D/WT	µg/L	<0.40	<0.40	<0.40	----	----	----	----	
Xylene, o-	95-47-6	E611D/WT	µg/L	<0.30	<0.30	<0.30	----	----	----	----	
Xylenes, total	1330-20-7	E611D/WT	µg/L	<0.50	<0.50	<0.50	----	----	----	----	
Hydrocarbons											
F1 (C6-C10)	----	E581.F1-L/WT	µg/L	<25	<25	<25	----	----	----	----	
F2 (C10-C16)	----	E601/WT	µg/L	<100	<100	<100	----	----	----	----	
F3 (C16-C34)	----	E601/WT	µg/L	<250	<250	<250	----	----	----	----	
F4 (C34-C50)	----	E601/WT	µg/L	<250	<250	<250	----	----	----	----	



Matrix: Water

				MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----
				Client sample ID	Client sample ID	Client sample ID				
				Client sampling date / time	Client sampling date / time	Client sampling date / time				
				Sub-Matrix	Sub-Matrix	Sub-Matrix				
Analyte	CAS Number	Method/Lab	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----
				Result	Result	Result	----	----	----	----
Hydrocarbons										
F1-BTEX	----	EC580/WT	µg/L	<25	<25	<25	----	----	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581/WT	µg/L	<370	<370	<370	----	----	----	----
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/WT	%	94.4	88.9	90.1	----	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	%	94.4	92.9	94.0	----	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	%	106	105	105	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	%	102	101	101	----	----	----	----
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Acenaphthylene	208-96-8	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Acridine	260-94-6	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Anthracene	120-12-7	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Benz(a)anthracene	56-55-3	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Benzo(a)pyrene	50-32-8	E641A-L/WT	µg/L	<0.0050	<0.0050	<0.0050	----	----	----	----
Benzo(b+j)fluoranthene	n/a	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Benzo(b+j+k)fluoranthene	n/a	E641A-L/WT	µg/L	<0.015	<0.015	<0.015	----	----	----	----
Benzo(g,h,i)perylene	191-24-2	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Benzo(k)fluoranthene	207-08-9	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----



Matrix: Water

				MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----	----	----
				Client sample ID	----	----	----	----	----	----
				Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----	----
				Sub-Matrix	Water	Water	Water	----	----	----
Analyte	CAS Number	Method/Lab	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	----	----
				Result	Result	Result	----	----	----	----
Polycyclic Aromatic Hydrocarbons										
Chrysene	218-01-9	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Dibenz(a,h)anthracene	53-70-3	E641A-L/WT	µg/L	<0.0050	<0.0050	<0.0050	----	----	----	----
Fluoranthene	206-44-0	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Fluorene	86-73-7	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Methylnaphthalene, 1-	90-12-0	E641A-L/WT	µg/L	0.155	<0.010	<0.010	----	----	----	----
Methylnaphthalene, 1+2-	----	E641A-L/WT	µg/L	0.155	<0.015	<0.015	----	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Naphthalene	91-20-3	E641A-L/WT	µg/L	<0.024 ^{DLM}	<0.010	<0.010	----	----	----	----
Perylene	198-55-0	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Phenanthrene	85-01-8	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Pyrene	129-00-0	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Quinoline	91-22-5	E641A-L/WT	µg/L	<0.072 ^{DLM}	<0.010	<0.010	----	----	----	----
B(a)P total potency equivalents [B(a)P TPE]	----	E641A-L/WT	µg/L	<0.010	<0.010	<0.010	----	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A-L/WT	%	96.7	94.2	95.6	----	----	----	----
Naphthalene-d8	1146-65-2	E641A-L/WT	%	98.1	95.0	98.7	----	----	----	----
Phenanthrene-d10	1517-22-2	E641A-L/WT	%	108	103	107	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.



Summary of Guideline Limits



CERTIFICATE OF ANALYSIS

Work Order	: BF2500317	Laboratory	: ALS Environmental - Baffin Island
Client	: Baffinland Iron Mines Corporation	Account Manager	: Rick Hawthorne
Contact	: Environmental Lab Results	Address	: Mary River, Qikqtani Region Baffin Island NU Canada
Address	: 360 Oakville Place Dr Suite 300 Oakville Ontario Canada L6H 6K8	E-mail	: Rick.Hawthorne@ALSGlobal.com
Telephone	: ----	Telephone	:
Project	: HWB Groundwater	Date Samples Received	: 04-Sep-2025 11:57
PO	: 4500156571	Date Analysis Commenced	: 05-Sep-2025
C-O-C number	: 25 09 02 - MS_HWB_GW	Issue Date	: 24-Sep-2025 13:24
Sampler	: ET, LG		
Site	: ----		
Quote number	: 2024-2025 Scope of Work		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Amaninder Dhillon	Team Lead - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Cedrick Velasco	Lab Manager	Inorganics, Baffin Island, Nunavut
Danielle Gravel	Supervisor - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
David Tremblett	VOC Section Supervisor	VOC, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Rachel Cameron	Supervisor - Semi-Volatile Extractions	Organics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Metals, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	no units
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Physical Tests										
Conductivity	----	E100/WT	1.0	µS/cm	409	353	324	----	----	
pH	----	E108/BF	0.10	pH units	7.82	8.07	8.00	----	----	
Solids, total dissolved [TDS]	----	E162/BF	10	mg/L	163	200	178	----	----	
Solids, total suspended [TSS]	----	E160-L/BF	1.0	mg/L	<1.0	1.4	1.9	----	----	
Turbidity	----	E121/BF	0.10	NTU	0.79	2.06	2.21	----	----	
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	197	155	153	----	----	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	<0.0050	<0.0050	0.0082	----	----	
Bromide	24959-67-9	E235.Br/WT	0.10	mg/L	<0.10	<0.10	<0.10	----	----	
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	15.3	6.80	5.04	----	----	
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.032	0.049	0.042	----	----	
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	0.112	0.175	0.136	----	----	
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	0.082	1.00	0.573	----	----	
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.010	<0.010	<0.010	----	----	
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.0071	0.0070	0.0053	----	----	
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	9.65	23.7	16.3	----	----	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	0.0024	0.0019	0.0017	----	----	
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	0.00026	0.00032	0.00022	----	----	
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.0195	0.0198	0.0198	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Dissolved Metals										
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L	<0.000020	<0.000020	<0.000020	----	----	
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L	0.029	0.026	0.018	----	----	
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	0.0000060	<0.0000050	<0.0000050	----	----	
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	29.7	21.0	21.9	----	----	
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	0.00051	0.00088	0.00118	----	----	
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	0.00203	0.00153	0.00138	----	----	
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	<0.010	<0.010	<0.010	----	----	
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	0.000056	<0.000050	0.000491	----	----	
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L	0.0032	0.0030	0.0023	----	----	
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	33.2	21.7	19.6	----	----	
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.00223	0.00217	<0.00010	----	----	
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	----	----	
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L	0.00191	0.00154	0.00110	----	----	
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.00615	0.00498	0.00460	----	----	
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L	<0.050	<0.050	<0.050	----	----	
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	2.02	3.10	2.43	----	----	
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L	0.00369	0.00274	0.00539	----	----	
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	0.000072	0.000169	0.000109	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Dissolved Metals										
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L	4.71	5.41	4.89	----	----	
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	4.07	18.7	15.7	----	----	
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L	0.0211	0.0192	0.0141	----	----	
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L	3.91	8.82	5.91	----	----	
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	----	----	
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L	0.000012	<0.000010	0.000011	----	----	
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L	0.00029	0.00036	0.00017	----	----	
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L	<0.00030	<0.00030	<0.00030	----	----	
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L	0.00109	0.000696	0.000662	----	----	
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----	
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L	0.00040	<0.00030	<0.00030	----	----	
Dissolved mercury filtration location	----	EP509/WT	-	-	Field	Field	Field	----	----	
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	----	----	
Aggregate Organics										
Oil & grease (gravimetric)	----	E567/WT	5.0	mg/L	<5.0	<5.0	<5.0	----	----	
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L	<20	<20	<20	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Volatile Organic Compounds										
Benzene	71-43-2	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Bromoform	75-25-2	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
BTEX, total	----	E611D/WT	1.0	µg/L	<1.0	<1.0	<1.0	----	----	
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	<1.0	<1.0	<1.0	----	----	
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	<0.20	<0.20	<0.20	----	----	
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Chloroform	67-66-3	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	<2.0	<2.0	<2.0	----	----	
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	<0.20	<0.20	<0.20	----	----	
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Volatile Organic Compounds										
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L	<0.71	<0.71	<0.71	----	----	
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L	<1.0	<1.0	<1.0	----	----	
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L	<0.30	<0.30	<0.30	----	----	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L	<0.5	<0.5	<0.5	----	----	
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L	<0.30	<0.30	<0.30	----	----	
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L	<20	<20	<20	----	----	
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L	<20	<20	<20	----	----	
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L	<20	<20	<20	----	----	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Styrene	100-42-5	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Toluene	108-88-3	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Volatile Organic Compounds										
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L	<1.0	<1.0	<1.0	----	----	
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L	<0.20	<0.20	<0.20	----	----	
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L	<0.40	<0.40	<0.40	----	----	
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L	<0.30	<0.30	<0.30	----	----	
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L	<0.50	<0.50	<0.50	----	----	
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L/WT	25	µg/L	<25	<25	<25	----	----	
F2 (C10-C16)	----	E601/WT	100	µg/L	<100	<100	<100	----	----	
F3 (C16-C34)	----	E601/WT	250	µg/L	<250	<250	<250	----	----	
F4 (C34-C50)	----	E601/WT	250	µg/L	<250	<250	<250	----	----	
F1-BTEX	----	EC580/WT	25	µg/L	<25	<25	<25	----	----	
Hydrocarbons, total (C6-C50)	n/a	EC581/WT	370	µg/L	<370	<370	<370	----	----	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/WT	1.0	%	94.4	88.9	90.1	----	----	
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	1.0	%	94.4	92.9	94.0	----	----	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%	106	105	105	----	----	
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%	102	101	101	----	----	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Polycyclic Aromatic Hydrocarbons										
Acenaphthylene	208-96-8	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Acridine	260-94-6	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Anthracene	120-12-7	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Benz(a)anthracene	56-55-3	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Benzo(a)pyrene	50-32-8	E641A-L/WT	0.0050	µg/L	<0.0050	<0.0050	<0.0050	----	----	
Benzo(b+j)fluoranthene	n/a	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Benzo(b+j+k)fluoranthene	n/a	E641A-L/WT	0.015	µg/L	<0.015	<0.015	<0.015	----	----	
Benzo(g,h,i)perylene	191-24-2	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Benzo(k)fluoranthene	207-08-9	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Chrysene	218-01-9	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Dibenz(a,h)anthracene	53-70-3	E641A-L/WT	0.0050	µg/L	<0.0050	<0.0050	<0.0050	----	----	
Fluoranthene	206-44-0	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Fluorene	86-73-7	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Methylnaphthalene, 1-	90-12-0	E641A-L/WT	0.010	µg/L	0.155	<0.010	<0.010	----	----	
Methylnaphthalene, 1+2-	----	E641A-L/WT	0.015	µg/L	0.155	<0.015	<0.015	----	----	
Methylnaphthalene, 2-	91-57-6	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Naphthalene	91-20-3	E641A-L/WT	0.010	µg/L	<0.024 ^{DLM}	<0.010	<0.010	----	----	
Perylene	198-55-0	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Phenanthrene	85-01-8	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Pyrene	129-00-0	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	MS-HWB-25-01_2025-09-02	MS-HWB-25-03_2025-09-02	HWB-KP22-06_2025-09-02	----	----
					Client sampling date / time	02-Sep-2025 08:45	02-Sep-2025 10:25	02-Sep-2025 11:20	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	BF2500317-001	BF2500317-002	BF2500317-003	----	----	
					Result	Result	Result	----	----	
Polycyclic Aromatic Hydrocarbons										
Quinoline	91-22-5	E641A-L/WT	0.010	µg/L	<0.072 ^{DLM}	<0.010	<0.010	----	----	
B(a)P total potency equivalents [B(a)P TPE]	----	E641A-L/WT	0.010	µg/L	<0.010	<0.010	<0.010	----	----	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A-L/WT	0.1	%	96.7	94.2	95.6	----	----	
Naphthalene-d8	1146-65-2	E641A-L/WT	0.1	%	98.1	95.0	98.7	----	----	
Phenanthrene-d10	1517-22-2	E641A-L/WT	0.1	%	108	103	107	----	----	

Please refer to the General Comments section for an explanation of any qualifiers detected.



QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : BF2500317</p> <p>Client : Baffinland Iron Mines Corporation</p> <p>Contact : Environmental Lab Results</p> <p>Address : 360 Oakville Place Dr Suite 300 Oakville ON Canada L6H 6K8</p> <p>Telephone : ----</p> <p>Project : HWB Groundwater</p> <p>PO : 4500156571</p> <p>C-O-C number : 25 09 02 - MS_HWB_GW</p> <p>Sampler : ET, LG</p> <p>Site : ----</p> <p>Quote number : 2024-2025 Scope of Work</p> <p>No. of samples received : 3</p> <p>No. of samples analysed : 3</p>	<p>Page : 1 of 17</p> <p>Laboratory : ALS Environmental - Baffin Island</p> <p>Account Manager : Rick Hawthorne</p> <p>Address : Mary River, Qikqtani Region Baffin Island, Nunavut Canada</p> <p>Telephone : ----</p> <p>Date Samples Received : 04-Sep-2025 11:57</p> <p>Issue Date : 24-Sep-2025 13:24</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) HWB-KP22-06_2025-09-02	E567	02-Sep-2025	18-Sep-2025	28 days	16 days	✔	18-Sep-2025	28 days	16 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) MS-HWB-25-01_2025-09-02	E567	02-Sep-2025	18-Sep-2025	28 days	16 days	✔	18-Sep-2025	28 days	16 days	✔
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) MS-HWB-25-03_2025-09-02	E567	02-Sep-2025	18-Sep-2025	28 days	16 days	✔	18-Sep-2025	28 days	16 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) HWB-KP22-06_2025-09-02	E298	02-Sep-2025	16-Sep-2025	28 days	14 days	✔	16-Sep-2025	28 days	14 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) MS-HWB-25-01_2025-09-02	E298	02-Sep-2025	16-Sep-2025	28 days	14 days	✔	16-Sep-2025	28 days	14 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) MS-HWB-25-03_2025-09-02	E298	02-Sep-2025	16-Sep-2025	28 days	14 days	✔	16-Sep-2025	28 days	14 days	✔
Anions and Nutrients : Bromide in Water by IC										
HDPE HWB-KP22-06_2025-09-02	E235.Br	02-Sep-2025	11-Sep-2025	28 days	9 days	✔	15-Sep-2025	28 days	9 days	✔



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Bromide in Water by IC										
HDPE MS-HWB-25-01_2025-09-02	E235.Br	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC										
HDPE MS-HWB-25-03_2025-09-02	E235.Br	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE HWB-KP22-06_2025-09-02	E235.Cl	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE MS-HWB-25-01_2025-09-02	E235.Cl	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE MS-HWB-25-03_2025-09-02	E235.Cl	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HWB-KP22-06_2025-09-02	E235.F	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE MS-HWB-25-01_2025-09-02	E235.F	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE MS-HWB-25-03_2025-09-02	E235.F	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	15-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE HWB-KP22-06_2025-09-02	E235.NO3	02-Sep-2025	11-Sep-2025	3 days	9 days	* EHT	15-Sep-2025	3 days	9 days	* EHT



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis					
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval		
				Rec	Actual			Rec	Actual			
Anions and Nutrients : Nitrate in Water by IC												
HDPE MS-HWB-25-01_2025-09-02	E235.NO3	02-Sep-2025	11-Sep-2025	3 days	9 days	*	EHT	15-Sep-2025	3 days	9 days	*	EHT
Anions and Nutrients : Nitrate in Water by IC												
HDPE MS-HWB-25-03_2025-09-02	E235.NO3	02-Sep-2025	11-Sep-2025	3 days	9 days	*	EHT	15-Sep-2025	3 days	9 days	*	EHT
Anions and Nutrients : Nitrite in Water by IC												
HDPE HWB-KP22-06_2025-09-02	E235.NO2	02-Sep-2025	11-Sep-2025	3 days	9 days	*	EHT	15-Sep-2025	3 days	9 days	*	EHT
Anions and Nutrients : Nitrite in Water by IC												
HDPE MS-HWB-25-01_2025-09-02	E235.NO2	02-Sep-2025	11-Sep-2025	3 days	9 days	*	EHT	15-Sep-2025	3 days	9 days	*	EHT
Anions and Nutrients : Nitrite in Water by IC												
HDPE MS-HWB-25-03_2025-09-02	E235.NO2	02-Sep-2025	11-Sep-2025	3 days	9 days	*	EHT	15-Sep-2025	3 days	9 days	*	EHT
Anions and Nutrients : Sulfate in Water by IC												
HDPE HWB-KP22-06_2025-09-02	E235.SO4	02-Sep-2025	11-Sep-2025	28 days	9 days	✓		15-Sep-2025	28 days	9 days	✓	
Anions and Nutrients : Sulfate in Water by IC												
HDPE MS-HWB-25-01_2025-09-02	E235.SO4	02-Sep-2025	11-Sep-2025	28 days	9 days	✓		15-Sep-2025	28 days	9 days	✓	
Anions and Nutrients : Sulfate in Water by IC												
HDPE MS-HWB-25-03_2025-09-02	E235.SO4	02-Sep-2025	11-Sep-2025	28 days	9 days	✓		15-Sep-2025	28 days	9 days	✓	
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)												
Amber glass total (sulfuric acid) HWB-KP22-06_2025-09-02	E318	02-Sep-2025	16-Sep-2025	28 days	14 days	✓		16-Sep-2025	28 days	14 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)											
Amber glass total (sulfuric acid) MS-HWB-25-01_2025-09-02	E318	02-Sep-2025	16-Sep-2025	28 days	14 days	✓	16-Sep-2025	28 days	14 days	✓	
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)											
Amber glass total (sulfuric acid) MS-HWB-25-03_2025-09-02	E318	02-Sep-2025	16-Sep-2025	28 days	14 days	✓	16-Sep-2025	28 days	14 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) HWB-KP22-06_2025-09-02	E372-U	02-Sep-2025	16-Sep-2025	28 days	14 days	✓	17-Sep-2025	28 days	14 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) MS-HWB-25-01_2025-09-02	E372-U	02-Sep-2025	16-Sep-2025	28 days	14 days	✓	17-Sep-2025	28 days	14 days	✓	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid) MS-HWB-25-03_2025-09-02	E372-U	02-Sep-2025	16-Sep-2025	28 days	14 days	✓	17-Sep-2025	28 days	14 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) HWB-KP22-06_2025-09-02	E509	02-Sep-2025	15-Sep-2025	28 days	13 days	✓	16-Sep-2025	28 days	13 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) MS-HWB-25-01_2025-09-02	E509	02-Sep-2025	15-Sep-2025	28 days	13 days	✓	16-Sep-2025	28 days	13 days	✓	
Dissolved Metals : Dissolved Mercury in Water by CVAAS											
Glass vial dissolved (hydrochloric acid) MS-HWB-25-03_2025-09-02	E509	02-Sep-2025	15-Sep-2025	28 days	13 days	✓	16-Sep-2025	28 days	13 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) HWB-KP22-06_2025-09-02	E421	02-Sep-2025	12-Sep-2025	180 days	10 days	✓	12-Sep-2025	180 days	10 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) MS-HWB-25-03_2025-09-02	E421	02-Sep-2025	12-Sep-2025	180 days	10 days	✓	12-Sep-2025	180 days	10 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE dissolved (nitric acid) MS-HWB-25-01_2025-09-02	E421	02-Sep-2025	12-Sep-2025	180 days	11 days	✓	12-Sep-2025	180 days	11 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) HWB-KP22-06_2025-09-02	E581.F1-L	02-Sep-2025	15-Sep-2025	14 days	13 days	✓	15-Sep-2025	14 days	13 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) MS-HWB-25-01_2025-09-02	E581.F1-L	02-Sep-2025	15-Sep-2025	14 days	13 days	✓	15-Sep-2025	14 days	13 days	✓	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)											
Glass vial (sodium bisulfate) MS-HWB-25-03_2025-09-02	E581.F1-L	02-Sep-2025	15-Sep-2025	14 days	13 days	✓	15-Sep-2025	14 days	13 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-06_2025-09-02	E601	02-Sep-2025	15-Sep-2025	14 days	13 days	✓	17-Sep-2025	40 days	2 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-25-01_2025-09-02	E601	02-Sep-2025	15-Sep-2025	14 days	13 days	✓	17-Sep-2025	40 days	2 days	✓	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-25-03_2025-09-02	E601	02-Sep-2025	15-Sep-2025	14 days	13 days	✓	17-Sep-2025	40 days	2 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE HWB-KP22-06_2025-09-02	E290	02-Sep-2025	11-Sep-2025	14 days	9 days	✓	13-Sep-2025	14 days	9 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Alkalinity Species by Titration											
HDPE MS-HWB-25-01_2025-09-02	E290	02-Sep-2025	11-Sep-2025	14 days	9 days	✓	13-Sep-2025	14 days	9 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE MS-HWB-25-03_2025-09-02	E290	02-Sep-2025	11-Sep-2025	14 days	9 days	✓	13-Sep-2025	14 days	9 days	✓	
Physical Tests : Conductivity in Water											
HDPE HWB-KP22-06_2025-09-02	E100	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	13-Sep-2025	28 days	9 days	✓	
Physical Tests : Conductivity in Water											
HDPE MS-HWB-25-01_2025-09-02	E100	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	13-Sep-2025	28 days	9 days	✓	
Physical Tests : Conductivity in Water											
HDPE MS-HWB-25-03_2025-09-02	E100	02-Sep-2025	11-Sep-2025	28 days	9 days	✓	13-Sep-2025	28 days	9 days	✓	
Physical Tests : pH by Meter											
HDPE HWB-KP22-06_2025-09-02	E108	02-Sep-2025	05-Sep-2025	0.25 hrs	68 hrs	* EHTR-FM	05-Sep-2025	0.25 hrs	68 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE MS-HWB-25-03_2025-09-02	E108	02-Sep-2025	05-Sep-2025	0.25 hrs	69 hrs	* EHTR-FM	05-Sep-2025	0.25 hrs	69 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE MS-HWB-25-01_2025-09-02	E108	02-Sep-2025	05-Sep-2025	0.25 hrs	70 hrs	* EHTR-FM	05-Sep-2025	0.25 hrs	70 hrs	* EHTR-FM	
Physical Tests : TDS by Gravimetry											
HDPE HWB-KP22-06_2025-09-02	E162	02-Sep-2025	----	----	----		05-Sep-2025	7 days	3 days	✓	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : TDS by Gravimetry											
HDPE MS-HWB-25-01_2025-09-02	E162	02-Sep-2025	----	----	----		05-Sep-2025	7 days	3 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE MS-HWB-25-03_2025-09-02	E162	02-Sep-2025	----	----	----		05-Sep-2025	7 days	3 days	✓	
Physical Tests : TSS by Gravimetry (Low Level)											
HDPE HWB-KP22-06_2025-09-02	E160-L	02-Sep-2025	----	----	----		05-Sep-2025	7 days	3 days	✓	
Physical Tests : TSS by Gravimetry (Low Level)											
HDPE MS-HWB-25-01_2025-09-02	E160-L	02-Sep-2025	----	----	----		05-Sep-2025	7 days	3 days	✓	
Physical Tests : TSS by Gravimetry (Low Level)											
HDPE MS-HWB-25-03_2025-09-02	E160-L	02-Sep-2025	----	----	----		05-Sep-2025	7 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE HWB-KP22-06_2025-09-02	E121	02-Sep-2025	----	----	----		05-Sep-2025	3 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE MS-HWB-25-01_2025-09-02	E121	02-Sep-2025	----	----	----		05-Sep-2025	3 days	3 days	✓	
Physical Tests : Turbidity by Nephelometry											
HDPE MS-HWB-25-03_2025-09-02	E121	02-Sep-2025	----	----	----		05-Sep-2025	3 days	3 days	✓	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) HWB-KP22-06_2025-09-02	E641A-L	02-Sep-2025	15-Sep-2025	14 days	13 days	✓	15-Sep-2025	40 days	0 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-25-01_2025-09-02	E641A-L	02-Sep-2025	15-Sep-2025	14 days	13 days	✔	15-Sep-2025	40 days	0 days	✔	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS (Low Level)											
Amber glass/Teflon lined cap (sodium bisulfate) MS-HWB-25-03_2025-09-02	E641A-L	02-Sep-2025	15-Sep-2025	14 days	13 days	✔	15-Sep-2025	40 days	0 days	✔	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) HWB-KP22-06_2025-09-02	E611D	02-Sep-2025	15-Sep-2025	14 days	13 days	✔	15-Sep-2025	14 days	13 days	✔	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) MS-HWB-25-01_2025-09-02	E611D	02-Sep-2025	15-Sep-2025	14 days	13 days	✔	15-Sep-2025	14 days	13 days	✔	
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS											
Glass vial (sodium bisulfate) MS-HWB-25-03_2025-09-02	E611D	02-Sep-2025	15-Sep-2025	14 days	13 days	✔	15-Sep-2025	14 days	13 days	✔	

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended
 EHT: Exceeded ALS recommended hold time prior to analysis.
 Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2213246	1	14	7.1	5.0	✔
pH by Meter	E108	2201030	1	6	16.6	5.0	✔
Turbidity by Nephelometry	E121	2201034	1	6	16.6	5.0	✔
TSS by Gravimetry (Low Level)	E160-L	2201038	1	14	7.1	5.0	✔
TDS by Gravimetry	E162	2201039	1	6	16.6	5.0	✔
Bromide in Water by IC	E235.Br	2213244	1	7	14.2	5.0	✔
Chloride in Water by IC	E235.Cl	2213242	1	20	5.0	5.0	✔
Fluoride in Water by IC	E235.F	2213243	1	13	7.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2213245	1	9	11.1	5.0	✔
Nitrate in Water by IC	E235.NO3	2213240	1	11	9.0	5.0	✔
Sulfate in Water by IC	E235.SO4	2213241	1	15	6.6	5.0	✔
Alkalinity Species by Titration	E290	2213247	1	15	6.6	5.0	✔
Ammonia by Fluorescence	E298	2220666	1	18	5.5	5.0	✔
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2220667	1	20	5.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2220665	1	18	5.5	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	2216499	1	20	5.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	2218532	1	20	5.0	5.0	✔
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2219301	1	5	20.0	5.0	✔
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2219300	1	20	5.0	5.0	✔
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2213246	1	14	7.1	5.0	✔
pH by Meter	E108	2201030	1	6	16.6	5.0	✔
Turbidity by Nephelometry	E121	2201034	1	6	16.6	5.0	✔
TSS by Gravimetry (Low Level)	E160-L	2201038	1	14	7.1	5.0	✔
TDS by Gravimetry	E162	2201039	1	6	16.6	5.0	✔
Bromide in Water by IC	E235.Br	2213244	1	7	14.2	5.0	✔
Chloride in Water by IC	E235.Cl	2213242	1	20	5.0	5.0	✔
Fluoride in Water by IC	E235.F	2213243	1	13	7.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2213245	1	9	11.1	5.0	✔
Nitrate in Water by IC	E235.NO3	2213240	1	11	9.0	5.0	✔
Sulfate in Water by IC	E235.SO4	2213241	1	15	6.6	5.0	✔
Alkalinity Species by Titration	E290	2213247	1	15	6.6	5.0	✔
Ammonia by Fluorescence	E298	2220666	1	18	5.5	5.0	✔
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2220667	1	20	5.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2220665	1	18	5.5	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	2216499	1	20	5.0	5.0	✔



Matrix: **Water**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
Dissolved Mercury in Water by CVAAS	E509	2218532	1	20	5.0	5.0	✔
Oil & Grease by Gravimetry	E567	2225601	1	20	5.0	5.0	✔
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2219301	1	5	20.0	5.0	✔
CCME PHCs - F2-F4 by GC-FID	E601	2219268	1	3	33.3	5.0	✔
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2219300	1	20	5.0	5.0	✔
PAHs in Water by Hexane LVI GC-MS (Low Level)	E641A-L	2219269	1	6	16.6	5.0	✔
Method Blanks (MB)							
Conductivity in Water	E100	2213246	1	14	7.1	5.0	✔
Turbidity by Nephelometry	E121	2201034	1	6	16.6	5.0	✔
TSS by Gravimetry (Low Level)	E160-L	2201038	1	14	7.1	5.0	✔
TDS by Gravimetry	E162	2201039	1	6	16.6	5.0	✔
Bromide in Water by IC	E235.Br	2213244	1	7	14.2	5.0	✔
Chloride in Water by IC	E235.Cl	2213242	1	20	5.0	5.0	✔
Fluoride in Water by IC	E235.F	2213243	1	13	7.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2213245	1	9	11.1	5.0	✔
Nitrate in Water by IC	E235.NO3	2213240	1	11	9.0	5.0	✔
Sulfate in Water by IC	E235.SO4	2213241	1	15	6.6	5.0	✔
Alkalinity Species by Titration	E290	2213247	1	15	6.6	5.0	✔
Ammonia by Fluorescence	E298	2220666	1	18	5.5	5.0	✔
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2220667	1	20	5.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2220665	1	18	5.5	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	2216499	1	20	5.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	2218532	1	20	5.0	5.0	✔
Oil & Grease by Gravimetry	E567	2225601	1	20	5.0	5.0	✔
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2219301	1	5	20.0	5.0	✔
CCME PHCs - F2-F4 by GC-FID	E601	2219268	1	3	33.3	5.0	✔
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2219300	1	20	5.0	5.0	✔
PAHs in Water by Hexane LVI GC-MS (Low Level)	E641A-L	2219269	1	6	16.6	5.0	✔
Matrix Spikes (MS)							
Bromide in Water by IC	E235.Br	2213244	1	7	14.2	5.0	✔
Chloride in Water by IC	E235.Cl	2213242	1	20	5.0	5.0	✔
Fluoride in Water by IC	E235.F	2213243	1	13	7.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2213245	1	9	11.1	5.0	✔
Nitrate in Water by IC	E235.NO3	2213240	1	11	9.0	5.0	✔
Sulfate in Water by IC	E235.SO4	2213241	1	15	6.6	5.0	✔
Ammonia by Fluorescence	E298	2220666	1	18	5.5	5.0	✔
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2220667	1	20	5.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2220665	1	18	5.5	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	2216499	1	20	5.0	5.0	✔



Matrix: **Water** Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS) - Continued							
Dissolved Mercury in Water by CVAAS	E509	2218532	1	20	5.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	2219301	1	5	20.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2219300	1	20	5.0	5.0	✓



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Baffin Island	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Baffin Island	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Baffin Island	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Baffin Island	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC	E235.Br ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Oil & Grease by Gravimetry	E567 ALS Environmental - Waterloo	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane and the extract is evaporated to dryness. The residue is then weighed to determine Oil and Grease.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4). Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
PAHs in Water by Hexane LVI GC-MS (Low Level)	E641A-L ALS Environmental - Waterloo	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
F1-BTEX	EC580 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
Sum F1 to F4 (C6-C50)	EC581 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Oil & Grease Extraction for Gravimetry	EP567 ALS Environmental - Waterloo	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane by liquid-liquid extraction.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Waterloo	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

QUALITY CONTROL REPORT

Work Order	: BF2500317	Page	: 1 of 19
Client	: Baffinland Iron Mines Corporation	Laboratory	: ALS Environmental - Baffin Island
Contact	: Environmental Lab Results	Account Manager	: Rick Hawthorne
Address	: 360 Oakville Place Dr Suite 300 Oakville ON Canada L6H 6K8	Address	: Mary River, Qikqtani Region Baffin Island, Nunavut Canada
Telephone	: ----	Telephone	:
Project	: HWB Groundwater	Date Samples Received	: 04-Sep-2025 11:57
PO	: 4500156571	Date Analysis Commenced	: 05-Sep-2025
C-O-C number	: 25 09 02 - MS_HWB_GW	Issue Date	: 24-Sep-2025 13:23
Sampler	: ET, LG		
Site	: ----		
Quote number	: 2024-2025 Scope of Work		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
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Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Metals, Waterloo, Ontario

Page : 2 of 19
Work Order : BF2500317
Client : Baffinland Iron Mines Corporation
Project : HWB Groundwater



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2201030)											
BF2500316-001	Anonymous	pH	----	E108	0.10	pH units	8.09	8.02	0.869%	4%	----
Physical Tests (QC Lot: 2201034)											
BF2500316-001	Anonymous	Turbidity	----	E121	0.10	NTU	1.87	1.88	0.534%	15%	----
Physical Tests (QC Lot: 2201038)											
BF2500313-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.2	mg/L	17.8	18.6	4.75%	20%	----
Physical Tests (QC Lot: 2201039)											
BF2500316-001	Anonymous	Solids, total dissolved [TDS]	----	E162	19	mg/L	100	95	5	Diff <2x LOR	----
Physical Tests (QC Lot: 2213246)											
WT2525276-013	Anonymous	Conductivity	----	E100	2.0	µS/cm	1080	1040	3.95%	10%	----
Physical Tests (QC Lot: 2213247)											
WT2525276-013	Anonymous	Alkalinity, total (as CaCO ₃)	----	E290	2.0	mg/L	142	149	5.05%	20%	----
Anions and Nutrients (QC Lot: 2213240)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.082	0.082	0.0007	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2213241)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Sulfate (as SO ₄)	14808-79-8	E235.SO4	0.30	mg/L	9.65	9.64	0.0922%	20%	----
Anions and Nutrients (QC Lot: 2213242)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Chloride	16887-00-6	E235.Cl	0.50	mg/L	15.3	15.2	0.107%	20%	----
Anions and Nutrients (QC Lot: 2213243)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.032	0.031	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2213244)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Bromide	24959-67-9	E235.Br	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2213245)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2220665)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0071	0.0068	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2220666)											



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Anions and Nutrients (QC Lot: 2220666) - continued											
BF2500317-002	MS-HWB-25-03_2025-09-02	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2220667)											
BF2500317-003	HWB-KP22-06_2025-09-02	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.136	0.131	0.005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2216499)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0024	0.0024	0.00004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00026	0.00026	0.000006	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0195	0.0200	2.65%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.029	0.030	0.0008	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000060	0.0000061	0.0000001	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	29.7	30.0	1.06%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.000050	mg/L	0.00051	0.00052	0.000006	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00203	0.00205	0.696%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000056	0.000056	0.0000004	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0032	0.0032	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	33.2	34.4	3.44%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00223	0.00230	3.01%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00191	0.00185	3.12%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00615	0.00618	0.451%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.02	2.06	2.12%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00369	0.00358	3.10%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000072	0.000070	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.71	4.79	1.70%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.07	4.08	0.342%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0211	0.0209	0.827%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.91	4.05	0.14	Diff <2x LOR	----



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Dissolved Metals (QC Lot: 2216499) - continued											
BF2500317-001	MS-HWB-25-01_2025-09-02	Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	---
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000012	<0.000010	0.000002	Diff <2x LOR	---
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00029	0.00030	0.000010	Diff <2x LOR	---
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	---
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	---
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00109	0.00109	0.302%	20%	---
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	---
Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00040	0.00038	0.00002	Diff <2x LOR	---		
Dissolved Metals (QC Lot: 2218532)											
BF2500301-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	---
Volatile Organic Compounds (QC Lot: 2219300)											
BF2500317-001	MS-HWB-25-01_2025-09-02	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	---
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	---
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	---
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	---
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	---
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---
Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---		
Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---		
Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	---		



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Volatile Organic Compounds (QC Lot: 2219300) - continued											
BF2500317-001	MS-HWB-25-01_2025-09-02	Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----		
Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----		
Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----		
Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----		
Hydrocarbons (QC Lot: 2219301)											
BF2500317-001	MS-HWB-25-01_2025-09-02	F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	<25	0	Diff <2x LOR	----



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2201034)						
Turbidity	---	E121	0.1	NTU	<0.10	---
Physical Tests (QCLot: 2201038)						
Solids, total suspended [TSS]	---	E160-L	1	mg/L	<1.0	---
Physical Tests (QCLot: 2201039)						
Solids, total dissolved [TDS]	---	E162	10	mg/L	<10	---
Physical Tests (QCLot: 2213246)						
Conductivity	---	E100	1	µS/cm	1.0	---
Physical Tests (QCLot: 2213247)						
Alkalinity, total (as CaCO ₃)	---	E290	1	mg/L	<1.0	---
Anions and Nutrients (QCLot: 2213240)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 2213241)						
Sulfate (as SO ₄)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 2213242)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 2213243)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 2213244)						
Bromide	24959-67-9	E235.Br	0.1	mg/L	<0.10	---
Anions and Nutrients (QCLot: 2213245)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	---
Anions and Nutrients (QCLot: 2220665)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 2220666)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 2220667)						
Kjeldahl nitrogen, total [TKN]	---	E318	0.05	mg/L	<0.050	---
Dissolved Metals (QCLot: 2216499)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2216499) - continued						
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2218532)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Aggregate Organics (QCLot: 2225601)						
Oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----
Volatile Organic Compounds (QCLot: 2219300)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2219300) - continued						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1,-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2,-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 2219268)						
F2 (C10-C16)	----	E601	100	µg/L	<100	----
F3 (C16-C34)	----	E601	250	µg/L	<250	----
F4 (C34-C50)	----	E601	250	µg/L	<250	----
Hydrocarbons (QCLot: 2219301)						
F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	----
Polycyclic Aromatic Hydrocarbons (QCLot: 2219269)						
Acenaphthene	83-32-9	E641A-L	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A-L	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A-L	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A-L	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A-L	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A-L	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A-L	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A-L	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A-L	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A-L	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A-L	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A-L	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A-L	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A-L	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Polycyclic Aromatic Hydrocarbons (QCLot: 2219269) - continued						
Methylnaphthalene, 2-	91-57-6	E641A-L	0.01	µg/L	<0.010	----
Naphthalene	91-20-3	E641A-L	0.01	µg/L	<0.010	----
Perylene	198-55-0	E641A-L	0.01	µg/L	<0.010	----
Phenanthrene	85-01-8	E641A-L	0.01	µg/L	<0.010	----
Pyrene	129-00-0	E641A-L	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A-L	0.01	µg/L	<0.010	----



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2201030)									
pH	---	E108	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 2201034)									
Turbidity	---	E121	0.1	NTU	200 NTU	99.5	85.0	115	---
Physical Tests (QCLot: 2201038)									
Solids, total suspended [TSS]	---	E160-L	1	mg/L	250 mg/L	98.0	85.0	115	---
Physical Tests (QCLot: 2201039)									
Solids, total dissolved [TDS]	---	E162	10	mg/L	850 mg/L	101	85.0	115	---
Physical Tests (QCLot: 2213246)									
Conductivity	---	E100	1	µS/cm	1410 µS/cm	98.2	90.0	110	---
Physical Tests (QCLot: 2213247)									
Alkalinity, total (as CaCO ₃)	---	E290	1	mg/L	150 mg/L	101	85.0	115	---
Anions and Nutrients (QCLot: 2213240)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.1	90.0	110	---
Anions and Nutrients (QCLot: 2213241)									
Sulfate (as SO ₄)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.0	90.0	110	---
Anions and Nutrients (QCLot: 2213242)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	98.5	90.0	110	---
Anions and Nutrients (QCLot: 2213243)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	104	90.0	110	---
Anions and Nutrients (QCLot: 2213244)									
Bromide	24959-67-9	E235.Br	0.1	mg/L	0.5 mg/L	103	85.0	115	---
Anions and Nutrients (QCLot: 2213245)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.2	90.0	110	---
Anions and Nutrients (QCLot: 2220665)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	91.6	80.0	120	---
Anions and Nutrients (QCLot: 2220666)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.5	85.0	115	---
Anions and Nutrients (QCLot: 2220667)									
Kjeldahl nitrogen, total [TKN]	---	E318	0.05	mg/L	4 mg/L	98.2	75.0	125	---
Dissolved Metals (QCLot: 2216499)									



Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2216499) - continued									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	0.05 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	105	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.005 mg/L	98.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	0.05 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	0.05 mg/L	93.9	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	98.8	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.002 mg/L	107	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	97.4	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	96.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	99.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	98.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	103	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.012 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.012 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	99.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	0.5 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	109	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.005 mg/L	106	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	0.5 mg/L	101	60.0	140	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.012 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	2.5 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.005 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.005 mg/L	99.6	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.025 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.012 mg/L	99.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.005 mg/L	103	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0 mg/L	104	80.0	120	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2216499) - continued									
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.025 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	99.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.005 mg/L	100	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	90.9	80.0	120	----
Aggregate Organics (QCLot: 2225601)									
Oil & grease (gravimetric)	---	E567	5	mg/L	200 mg/L	96.4	70.0	130	----
Volatile Organic Compounds (QCLot: 2219300)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	110	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	97.7	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	88.9	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	106	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	101	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	102	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	110	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	110	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	110	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	108	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	109	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	106	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Target Concentration	Recovery (%)	Recovery Limits (%)		Qualifier
					LCS	Low	High		
Volatile Organic Compounds (QCLot: 2219300) - continued									
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	104	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	112	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	107	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	103	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	106	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	109	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	105	70.0	130	----
Hydrocarbons (QCLot: 2219268)									
F2 (C10-C16)	---	E601	100	µg/L	3770 µg/L	83.9	70.0	130	----
F3 (C16-C34)	---	E601	250	µg/L	7760 µg/L	91.6	70.0	130	----
F4 (C34-C50)	---	E601	250	µg/L	4200 µg/L	100	70.0	130	----
Hydrocarbons (QCLot: 2219301)									
F1 (C6-C10)	---	E581.F1-L	25	µg/L	2000 µg/L	113	80.0	120	----
Polycyclic Aromatic Hydrocarbons (QCLot: 2219269)									
Acenaphthene	83-32-9	E641A-L	0.01	µg/L	0.526 µg/L	92.9	50.0	140	----
Acenaphthylene	208-96-8	E641A-L	0.01	µg/L	0.526 µg/L	85.4	50.0	140	----
Acridine	260-94-6	E641A-L	0.01	µg/L	0.526 µg/L	98.8	50.0	140	----
Anthracene	120-12-7	E641A-L	0.01	µg/L	0.526 µg/L	80.6	50.0	140	----
Benz(a)anthracene	56-55-3	E641A-L	0.01	µg/L	0.526 µg/L	107	50.0	140	----
Benzo(a)pyrene	50-32-8	E641A-L	0.005	µg/L	0.526 µg/L	99.2	50.0	140	----
Benzo(b+j)fluoranthene	n/a	E641A-L	0.01	µg/L	0.526 µg/L	89.4	50.0	140	----
Benzo(g,h,i)perylene	191-24-2	E641A-L	0.01	µg/L	0.526 µg/L	88.1	50.0	140	----
Benzo(k)fluoranthene	207-08-9	E641A-L	0.01	µg/L	0.526 µg/L	82.5	50.0	140	----
Chrysene	218-01-9	E641A-L	0.01	µg/L	0.526 µg/L	105	50.0	140	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 2219269) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A-L	0.005	µg/L	0.526 µg/L	77.9	50.0	140	----
Fluoranthene	206-44-0	E641A-L	0.01	µg/L	0.526 µg/L	98.4	50.0	140	----
Fluorene	86-73-7	E641A-L	0.01	µg/L	0.526 µg/L	94.8	50.0	140	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A-L	0.01	µg/L	0.526 µg/L	119	50.0	140	----
Methylnaphthalene, 1-	90-12-0	E641A-L	0.01	µg/L	0.526 µg/L	91.8	50.0	140	----
Methylnaphthalene, 2-	91-57-6	E641A-L	0.01	µg/L	0.526 µg/L	96.2	50.0	140	----
Naphthalene	91-20-3	E641A-L	0.01	µg/L	0.526 µg/L	93.2	50.0	140	----
Perylene	198-55-0	E641A-L	0.01	µg/L	0.526 µg/L	101	50.0	140	----
Phenanthrene	85-01-8	E641A-L	0.01	µg/L	0.526 µg/L	99.6	50.0	140	----
Pyrene	129-00-0	E641A-L	0.01	µg/L	0.526 µg/L	97.9	50.0	140	----
Quinoline	91-22-5	E641A-L	0.01	µg/L	0.526 µg/L	107	50.0	140	----



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2213240)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Nitrate (as N)	14797-55-8	E235.NO3	2.40 mg/L	2.5 mg/L	95.9	75.0	125	----
Anions and Nutrients (QCLot: 2213241)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Sulfate (as SO4)	14808-79-8	E235.SO4	96.5 mg/L	100 mg/L	96.5	75.0	125	----
Anions and Nutrients (QCLot: 2213242)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Chloride	16887-00-6	E235.Cl	97.7 mg/L	100 mg/L	97.7	75.0	125	----
Anions and Nutrients (QCLot: 2213243)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Fluoride	16984-48-8	E235.F	0.941 mg/L	1 mg/L	94.1	75.0	125	----
Anions and Nutrients (QCLot: 2213244)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Bromide	24959-67-9	E235.Br	0.48 mg/L	0.5 mg/L	96.1	75.0	125	----
Anions and Nutrients (QCLot: 2213245)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Nitrite (as N)	14797-65-0	E235.NO2	0.495 mg/L	0.5 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 2220665)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Phosphorus, total	7723-14-0	E372-U	0.101 mg/L	0.1 mg/L	101	70.0	130	----
Anions and Nutrients (QCLot: 2220666)										
BF2500317-002	MS-HWB-25-03_2025-09-02	Ammonia, total (as N)	7664-41-7	E298	0.104 mg/L	0.1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2220667)										
BF2500317-003	HWB-KP22-06_2025-09-02	Kjeldahl nitrogen, total [TKN]	----	E318	2.44 mg/L	2.5 mg/L	97.6	70.0	130	----
Dissolved Metals (QCLot: 2216499)										
BF2500317-003	HWB-KP22-06_2025-09-02	Aluminum, dissolved	7429-90-5	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0547 mg/L	0.05 mg/L	109	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0594 mg/L	0.05 mg/L	119	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.00543 mg/L	0.005 mg/L	108	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0464 mg/L	0.05 mg/L	92.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.049 mg/L	0.05 mg/L	98.5	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00536 mg/L	0.005 mg/L	107	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00281 mg/L	0.002 mg/L	112	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0126 mg/L	0.012 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0122 mg/L	0.012 mg/L	98.0	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0124 mg/L	0.012 mg/L	98.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.050 mg/L	0.05 mg/L	99.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0255 mg/L	0.025 mg/L	102	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0129 mg/L	0.012 mg/L	103	70.0	130	----



Sub-Matrix: Water

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 2216499) - continued										
BF2500317-003	HWB-KP22-06_2025-09-02	Magnesium, dissolved	7439-95-4	E421	ND mg/L	---	ND	70.0	130	---
		Manganese, dissolved	7439-96-5	E421	0.0129 mg/L	0.012 mg/L	103	70.0	130	---
		Molybdenum, dissolved	7439-98-7	E421	0.0134 mg/L	0.012 mg/L	107	70.0	130	---
		Nickel, dissolved	7440-02-0	E421	0.0247 mg/L	0.025 mg/L	98.6	70.0	130	---
		Phosphorus, dissolved	7723-14-0	E421	0.562 mg/L	0.5 mg/L	112	70.0	130	---
		Potassium, dissolved	7440-09-7	E421	2.46 mg/L	2.5 mg/L	98.3	70.0	130	---
		Rubidium, dissolved	7440-17-7	E421	ND mg/L	---	ND	70.0	130	---
		Selenium, dissolved	7782-49-2	E421	0.0624 mg/L	0.05 mg/L	125	70.0	130	---
		Silicon, dissolved	7440-21-3	E421	ND mg/L	---	ND	70.0	130	---
		Silver, dissolved	7440-22-4	E421	0.00546 mg/L	0.005 mg/L	109	70.0	130	---
		Sodium, dissolved	7440-23-5	E421	ND mg/L	---	ND	70.0	130	---
		Strontium, dissolved	7440-24-6	E421	ND mg/L	---	ND	70.0	130	---
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	---	ND	70.0	130	---
		Tellurium, dissolved	13494-80-9	E421	0.00582 mg/L	0.005 mg/L	116	70.0	130	---
		Thallium, dissolved	7440-28-0	E421	0.0491 mg/L	0.05 mg/L	98.1	70.0	130	---
		Thorium, dissolved	7440-29-1	E421	0.00495 mg/L	0.005 mg/L	99.0	70.0	130	---
		Tin, dissolved	7440-31-5	E421	0.0266 mg/L	0.025 mg/L	106	70.0	130	---
		Titanium, dissolved	7440-32-6	E421	0.0126 mg/L	0.012 mg/L	101	70.0	130	---
		Tungsten, dissolved	7440-33-7	E421	0.00531 mg/L	0.005 mg/L	106	70.0	130	---
		Uranium, dissolved	7440-61-1	E421	ND mg/L	---	ND	70.0	130	---
		Vanadium, dissolved	7440-62-2	E421	0.0265 mg/L	0.025 mg/L	106	70.0	130	---
		Zinc, dissolved	7440-66-6	E421	0.0268 mg/L	0.025 mg/L	107	70.0	130	---
		Zirconium, dissolved	7440-67-7	E421	0.00532 mg/L	0.005 mg/L	106	70.0	130	---
Dissolved Metals (QCLot: 2218532)										
BF2500301-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000838 mg/L	0 mg/L	83.8	70.0	130	---
Volatile Organic Compounds (QCLot: 2219300)										
BF2500317-001	MS-HWB-25-01_2025-09-02	Acetone	67-64-1	E611D	107 µg/L	100 µg/L	107	60.0	140	---
		Benzene	71-43-2	E611D	102 µg/L	100 µg/L	102	60.0	140	---
		Bromodichloromethane	75-27-4	E611D	106 µg/L	100 µg/L	106	60.0	140	---
		Bromoform	75-25-2	E611D	93.0 µg/L	100 µg/L	93.0	60.0	140	---
		Bromomethane	74-83-9	E611D	83.0 µg/L	100 µg/L	83.0	60.0	140	---
		Carbon disulfide	75-15-0	E611D	97.4 µg/L	100 µg/L	97.4	60.0	140	---
		Carbon tetrachloride	56-23-5	E611D	93.8 µg/L	100 µg/L	93.8	60.0	140	---
		Chlorobenzene	108-90-7	E611D	104 µg/L	100 µg/L	104	60.0	140	---
		Chloroethane	75-00-3	E611D	95.5 µg/L	100 µg/L	95.5	60.0	140	---
		Chloroform	67-66-3	E611D	104 µg/L	100 µg/L	104	60.0	140	---
		Chloromethane	74-87-3	E611D	99.9 µg/L	100 µg/L	99.9	60.0	140	---
		Dibromochloromethane	124-48-1	E611D	105 µg/L	100 µg/L	105	60.0	140	---
		Dibromoethane, 1,2-	106-93-4	E611D	106 µg/L	100 µg/L	106	60.0	140	---
		Dichlorobenzene, 1,2-	95-50-1	E611D	105 µg/L	100 µg/L	105	60.0	140	---
		Dichlorobenzene, 1,3-	541-73-1	E611D	101 µg/L	100 µg/L	101	60.0	140	---
		Dichlorobenzene, 1,4-	106-46-7	E611D	103 µg/L	100 µg/L	103	60.0	140	---
		Dichlorodifluoromethane	75-71-8	E611D	90.2 µg/L	100 µg/L	90.2	60.0	140	---



Sub-Matrix: Water

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2219300) - continued										
BF2500317-001	MS-HWB-25-01_2025-09-02	Dichloroethane, 1,1-	75-34-3	E611D	99.1 µg/L	100 µg/L	99.1	60.0	140	---
		Dichloroethane, 1,2-	107-06-2	E611D	104 µg/L	100 µg/L	104	60.0	140	---
		Dichloroethylene, 1,1-	75-35-4	E611D	95.9 µg/L	100 µg/L	95.9	60.0	140	---
		Dichloroethylene, cis-1,2-	156-59-2	E611D	103 µg/L	100 µg/L	103	60.0	140	---
		Dichloroethylene, trans-1,2-	156-60-5	E611D	99.7 µg/L	100 µg/L	99.7	60.0	140	---
		Dichloromethane	75-09-2	E611D	104 µg/L	100 µg/L	104	60.0	140	---
		Dichloropropane, 1,2-	78-87-5	E611D	105 µg/L	100 µg/L	105	60.0	140	---
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	105 µg/L	100 µg/L	105	60.0	140	---
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	101 µg/L	100 µg/L	101	60.0	140	---
		Ethylbenzene	100-41-4	E611D	101 µg/L	100 µg/L	101	60.0	140	---
		Hexane, n-	110-54-3	E611D	92.3 µg/L	100 µg/L	92.3	60.0	140	---
		Hexanone, 2-	591-78-6	E611D	101 µg/L	100 µg/L	101	60.0	140	---
		Methyl ethyl ketone [MEK]	78-93-3	E611D	105 µg/L	100 µg/L	105	60.0	140	---
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	106 µg/L	100 µg/L	106	60.0	140	---
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	101 µg/L	100 µg/L	101	60.0	140	---
		Styrene	100-42-5	E611D	100 µg/L	100 µg/L	100	60.0	140	---
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	100 µg/L	100 µg/L	100	60.0	140	---
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	106 µg/L	100 µg/L	106	60.0	140	---
		Tetrachloroethylene	127-18-4	E611D	95.2 µg/L	100 µg/L	95.2	60.0	140	---
		Toluene	108-88-3	E611D	100 µg/L	100 µg/L	100	60.0	140	---
		Trichloroethane, 1,1,1-	71-55-6	E611D	95.4 µg/L	100 µg/L	95.4	60.0	140	---
		Trichloroethane, 1,1,2-	79-00-5	E611D	104 µg/L	100 µg/L	104	60.0	140	---
		Trichloroethylene	79-01-6	E611D	104 µg/L	100 µg/L	104	60.0	140	---
		Trichlorofluoromethane	75-69-4	E611D	91.9 µg/L	100 µg/L	91.9	60.0	140	---
		Vinyl chloride	75-01-4	E611D	94.4 µg/L	100 µg/L	94.4	60.0	140	---
		Xylene, m+p-	179601-23-1	E611D	210 µg/L	200 µg/L	105	60.0	140	---
		Xylene, o-	95-47-6	E611D	102 µg/L	100 µg/L	102	60.0	140	---
Hydrocarbons (QCLot: 2219301)										
BF2500317-001	MS-HWB-25-01_2025-09-02	F1 (C6-C10)	----	E581.F1-L	2020 µg/L	2000 µg/L	101	60.0	140	---

Chain of Custody: 25 09 02 - MS_HWB_GW

Client Info	Project Info	Laboratory Info	
Baffinland Iron Mine Corporation 2275 Upper Middle Rd E, Suite 300 Oakville, ON, L6H 0C3 Phone: 647-253-0596 x6016/6039/4131 Email: environment.coordinators@baffinland.com; environment.superintendents@baffinland.com	Job Reference (Project): MS_HWB_GW Task: , Groundwater_MS_250827 Site: MS	Lab Name: ALS Waterloo Contact: Rick Hawthorne Phone: 519.886.6910 Email: Rick.Hawthorne@ALSGlobal.com	Address: Unit 1 - 60 Northland Road Waterloo, ON,N2V 2B8
Email Invoice: ap@baffinland.com; environment.superintendents@baffinland.com Email EDD: bim.equissa@baffinland.com Email COA: environment.labresults@baffinland.com	Turn around Time: Routine (R) Sampler 1: LG Sampler 2: ET Sampler 3:	ALS Quote #: WT2020BIMC1000001 ALS PO #: 4500156571	Lab Work Order # (lab use only):

Sample Details				Field Data			Analysis Requested													
Sample ID (sys_sample_code)	Location (sys_loc_code)	Sample Date and Time	Matrix	Temperature, Field (deg C)	pH, Field	Total # of Containers (pH units)	ALS_GW_HWB													
MS-HWB-25-01_2025-09-02	MS-HWB-25-01	9/2/2025 8:45:00 AM	WG	0.6	7.44	11	X													
MS-HWB-25-03_2025-09-02	MS-HWB-25-03	9/2/2025 10:25:00 AM	WG	0.3	7.81	11	X													
HWB-KP22-06_2025-09-02	HWB-KP22-06	9/2/2025 11:20:00 AM	WG	1.5	7.68	11	X													

Relinquished by:	Bradley Rasmussen	Date:	9/2/2025 1:32:00 PM
Additional Comments			
Initial Shipment Reception (lab use only)		Final Shipment Reception (lab use only)	
Received by:		Received by:	
Date/Time:		Date/Time:	

APPENDIX F

**2023, 2024 and 2025 Groundwater
Levels and Analytical Result Tables**

Table F-1: 2023, 2024 and 2025 Water level measurements collected at the Landfill Facility, Mary River Mine

Distance from Landfill Qualifier ^(a)	Well Location	Source					Source				
		LF-KP22-01					LF-KP22-03				
Date (M/DD/YYYY)		9/19/2023 ^(d)	9/4/2024 ^(e)	9/7/2024 ^(f)	10/11/2024 ^(g)	8/28/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/4/2024 ^(e)	9/7/2024 ^(f)	10/11/2024 ^(g)	8/27/2025 ^(j)
COA number		-	-	BF2400323	-	BF2500304	-	-	BF2400323	-	BF2500299
Field Observations	Unit										
Weather		na	Sunny, overcast	Cloudy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Sunny, windy	na	Sunny, overcast	Cloudy, windy, rainy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy, rain and snow
Well PVC tubing height	mags	-	0.748	0.748	0.748	0.747	-	1.068	1.068	1.068	1.072
Depth to bottom	mbtPVC	-	3.11	3.015	2.965	3.168	-	3.00	2.95	2.92	2.93
Depth to water	mbtPVC	-	1.720	1.791	0.5	1.939	-	1.74	1.754	1.51	1.848
Well depth from ground surface	mbgs	2.43	2.362	2.267	2.217	2.421	1.95	1.93	1.89	1.85	1.86
Water depth from ground surface	mbgs	1.21	0.972	1.043	-0.248	1.192	0.870	0.672	0.686	0.442	0.776
PVC casing elevation ^(b)	masl	-	180.288	180.288	180.288	180.42	-	179.44	179.44	179.44	179.502
Ground surface elevation ^(c)	masl	179.58	179.54	179.54	179.54	179.612	178.37	178.372	178.372	178.372	178.328
Estimated groundwater elevation	masl	178.370	178.568	178.497	179.788	178.420	177.500	177.700	177.686	177.930	177.552

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.

(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

(e) Water level measurement collected on 4-Sept-2024 by WSP to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and collecting a sample in 2024.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000 year rain event that occurred end of September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on 5-Sept-2024 had not been collected, but used water level measurements from 4-Sept-2024 for purging calculations

(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Table F-1: 2023, 2024 and 2025 Water level measurements collected at the Landfill Facility, Mary River Mine

Distance from Landfill Qualifier ^(a)	Well Location	Source			Source		Source		Source		
		LF-KP23-13			MS-LF-GW1		MS-LF-GW3		MS-LF-GW-REF1		
Date (M/DD/YYYY)		9/4/2024 ^(e)	9/7/2024 ^(f)	8/28/2025 ^(j)	9/19/2023 ^(d)	8/28/2025 ^(j)	9/19/2023 ^(d)	9/4/2024 ^(e)	8/27/2025 ^(j)	9/4/2024 ^(e)	8/28/2025 ^(j)
COA number		-	BF2400323	BF2500303	BF2300307	BF2500303	-	-	BF2500300	-	-
Field Observations	Unit										
Weather		Sunny, overcast	Cloudy, rainy	Sunny, partly cloudy, windy	na	Sunny, windy	na	Sunny, overcast	Rain/snow, windy	Sunny, overcast	Partly cloudy, sunny, windy
Well PVC tubing height	mags	1.078	1.078	1.062	-	0.466	-	0.593	0.828	0.05	0.11
Depth to bottom	mbtPVC	2.725	2.63	2.736	-	1.829	-	1.740	1.749	0.821	0.91
Depth to water	mbtPVC	1.89	1.902	1.915	-	0.922	-	1.190	1.290	0.05	0.10
Well depth from ground surface	mbgs	1.65	1.55	1.67	1.36	1.363	0.98	1.147	0.921	0.77	0.80
Water depth from ground surface	mbgs	0.812	0.824	0.853	0.48	0.456	0.46	0.597	0.462	0.00	-0.01
PVC casing elevation ^(b)	masl	181.015	181.015	181.074	-	179.271	-	178.643	178.655	179.78	179.657
Ground surface elevation ^(c)	masl	179.937	179.937	179.995	179.23	179.19	178.05	178.05	177.966	179.73	179.22
Estimated groundwater elevation	masl	179.125	179.113	179.142	178.750	178.734	177.590	177.453	177.504	179.730	179.232

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.

(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

(e) Water level measurement collected on 4-Sept-2024 by WSP to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and collecting a sample in 2024.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000 year rain event that occurred end of September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on 5-Sept-2024 had not been collected, but used water level measurements from 4-Sept-2024 for purging calculations

(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Distance from Landfill Qualifier ^(a)	Well Location	Proximal					Proximal					Proximal			
		LF-KP22-05					LF-KP23-05					LF-KP23-11			
Date (M/DD/YYYY)		9/19/2023 ^(d)	9/4/2024 ^(e)	9/6/2024 ^(f)	10/11/2024 ^(g)	8/26/2025 ^(j)	9/19/2023 ^(d)	9/4/2024 ^(e)	9/5/2024 ^(f)	10/11/2024 ^(g)	8/27/2025 ^(j)	9/19/2023 ^(d)	9/4/2024 ^(e)	9/6/2024 ^(f)	10/11/2024 ^(g)
COA number		-	-	BF2400320	-	BF2500297	-	-	BF2400320	-	BF2500299	-	-	BF2400320	-
Field Observations	Unit														
Weather		na	Sunny, overcast	Rainy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy, mostly cloudy	na	Sunny, overcast	Sunny	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Cloudy, windy, snowing	na	Sunny, overcast	Rainy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event
Well PVC tubing height	mags	-	1.145	1.145	1.145	1.16	-	1.169	1.169	1.169	1.162	-	1.162	1.162	1.162
Depth to bottom	mbtPVC	-	2.21	2.138	2.12	2.221	-	2.305	2.214	2.21	2.21	-	2.725	2.651	1.76 ^(h)
Depth to water	mbtPVC	-	1.765	1.636	1.475	1.656	-	1.876	1.875	1.61	1.986	-	1.635	1.62	1.415
Well depth from ground surface	mbgs	1.11	1.07	0.99	0.98	1.06	-	1.14	1.05	1.04	1.05	-	1.56	1.49	0.60
Water depth from ground surface	mbgs	0.660	0.620	0.491	0.330	0.496	1.070	0.707	0.706	0.441	0.824	0.690	0.473	0.458	0.253
PVC casing elevation ^(b)	masl	-	188.119	188.119	188.119	188.119	-	180.222	180.222	180.222	180.05	-	189.052	189.052	189.052
Ground surface elevation ^(c)	masl	187.06	186.974	186.974	186.974	186.959	178.99	179.053	179.053	179.053	178.869	187.7	187.89	187.89	187.89
Estimated groundwater elevation	masl	186.400	186.354	186.483	186.644	186.463	177.920	178.346	178.347	178.612	178.045	187.010	187.417	187.432	187.637

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.

(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

(e) Water level measurement collected on 4-Sept-2024 by WSP to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and collecting a sample in 2024.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000 year rain event that occurred end of September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on 5-Sept-2024 had not been collected, but used water level measurements from 4-Sept-2024 for purging calculations

(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Distance from Landfill Qualifier ^(a)		
Well Location		
Date (M/DD/YYYY)		8/26/2025 ^(j)
COA number		BF2500297
Field Observations	Unit	
Weather		Partly cloudy, windy
Well PVC tubing height	mags	1.201
Depth to bottom	mbtPVC	2.839
Depth to water	mbtPVC	1.738
Well depth from ground surface	mbgs	1.64
Water depth from ground surface	mbgs	0.537
PVC casing elevation ^(b)	masl	189.193
Ground surface elevation ^(c)	masl	187.986
Estimated groundwater elevation	masl	187.449

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.

(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

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(f) Water level measurement collected prior to purging and collecting a sample in 2024.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000 year rain event that occurred end of September 2024. No sample collected.

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(i) Water levels on 5-Sept-2024 had not been collected, but used water level measurements from 4-Sept-2024 for purging calculations

(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Table F-1: 2023, 2024 and 2025 Water level measurements collected at the Landfill Facility, Mary River Mine

Distance from Landfill Qualifier ^(a)	Well Location	Proximal					Proximal				Proximal		
		MS-LF-GW2					MS-LF-GW-REF2				LF-KP23-10		
Date (M/DD/YYYY)		9/19/2023 ^(d)	9/4/2024 ^(e)	9/7/2024 ^(f)	10/11/2024 ^(g)	8/29/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/4/2024 ^(e)	9/6/2024 ^(f)	8/27/2025 ^(j)	9/19/2023 ^(d)	9/4/2024 ^(e)	8/26/2025 ⁽ⁱ⁾
COA number		-	-	BF2400323	-	BF2500306	-	-	BF2400320	-	-	-	-
Field Observations	Unit												
Weather		na	Sunny, overcast	Cloudy, 5°C	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy, snowed overnight	na	Sunny, overcast	Cloudy, rainy, snowy, 0°C	Windy, rain and snow	na	Sunny, overcast	Partly cloudy, windy
Well PVC tubing height	mags	na	0.382	0.382	0.382	0.679	-	0.441	0.441	0.401	-	1.098	0.882
Depth to bottom	mbtPVC	na	1.89	1.742	1.74	1.75	-	1.795	1.741	1.872	-	2.655	2.814
Depth to water	mbtPVC	na	1.082	1.08	0.85	1.55	-	1.155	1.155	1.805	-	Dry	Dry
Well depth from ground surface	mbgs	1.23	1.51	1.36	1.36	1.07	1.08	1.35	1.30	1.47	na	1.56	1.93
Water depth from ground surface	mbgs	0.900	0.700	0.698	0.468	0.871	0.830	0.714	0.714	1.404	2.180	Dry	Dry
PVC casing elevation ^(b)	masl	-	178.512	178.512	178.512	178.853	-	179.731	179.731	179.608	-	188.88	188.937
Ground surface elevation ^(c)	masl	178.13	178.13	178.13	178.13	178.107	179.3	179.29	179.29	179.17	187.69	187.782	187.803
Estimated groundwater elevation	masl	177.230	177.430	177.432	177.662	177.236	178.470	178.576	178.576	177.766	185.510	-	-

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

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(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

(e) Water level measurement collected on 4-Sept-2024 by WSP to assess groundwater levels. No sample collected.

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(h) Well is frozen.

(i) Water levels on 5-Sept-2024 had not been collected, but used water level measurements from 4-Sept-2024 for purging calculations

(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Distance from Landfill Qualifier ^(a)	Well Location	Proximal			Downgradient				Downgradient					
		MS-LF-GW-REF3			LF-KP23-01				LF-KP23-04					
Date (M/DD/YYYY)		9/19/2023 ^(d)	9/4/2024 ^(e)	9/2/2025 ^(j)	9/19/2023 ^(d)	9/4/2024 ^(e)	9/7/2024 ^(f)	10/11/2024 ^(g)	8/26/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/4/2024 ^(e)	9/7/2024 ^(f)	10/11/2024 ^(g)	8/29/2025 ⁽ⁱ⁾
COA number		-	-	-	-	-	BF2400323	-	BF2500297	-	-	BF2400323	-	BF2500306
Field Observations	Unit													
Weather		na	Sunny, overcast	Overcast, windy	na	Sunny, overcast	Cloudy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Mostly cloudy, windy	na	Sunny, overcast	Cloudy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy, partly cloudy
Well PVC tubing height	mags	-	1.00	0.87	-	1.075	1.075	1.075	1.093	-	1.135	1.135	1.135	1.121
Depth to bottom	mbtPVC	-	1.74	1.823	-	2.57	2.494	2.49	2.575	-	2.385	2.308	2.3	2.636
Depth to water	mbtPVC	-	1.145	1.341	-	1.505	1.854	1.17	1.576	-	1.505	1.485	1.42	1.568
Well depth from ground surface	mbgs	0.96	0.74	0.95	-	1.50	1.42	1.42	1.48	-	1.25	1.17	1.17	1.52
Water depth from ground surface	mbgs	0.840	0.145	0.467	0.660	0.430	0.779	0.095	0.483	0.470	0.370	0.350	0.285	0.447
PVC casing elevation ^(b)	masl	-	187.98	187.82	-	170.774	170.774	170.774	170.628	-	178.236	178.236	178.236	178.125
Ground surface elevation ^(c)	masl	186.98	186.98	187.358	169.68	169.699	169.699	169.699	169.58	177.31	177.101	177.101	177.101	177.054
Estimated groundwater elevation	masl	186.140	186.835	186.891	169.020	169.269	168.920	169.604	169.097	176.840	176.731	176.751	176.816	176.607

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.

(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

(e) Water level measurement collected on 4-Sept-2024 by WSP to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and collecting a sample in 2024.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000 year rain event that occurred end of September 2024. No sample collected.

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(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Distance from Landfill Qualifier ^(a)	Well Location	Downgradient			Downgradient		Downgradient		Downgradient	Downgradient	Background				
		LF-KP23-03			MS-LF-GW4		MS-LF-GW5		MS-LF-25-01	MS-LF-25-02	LF-KP23-06				
Date (M/DD/YYYY)		9/19/2023 ^(d)	9/4/2024 ^(e)	8/28/2025 ^(j)	9/4/2024 ^(e)	8/29/2025 ^(j)	9/4/2024 ^(e)	8/29/2025 ^(j)	8/29/2025 ^(j)	8/29/2025 ^(j)	9/19/2023 ^(d)	9/4/2024 ^(e)	9/5/2024 ^(j)	10/11/2024 ^(g)	8/26/2025 ^(j)
COA number		-	-	-	-	-	-	-	-	-	-	-	BF2400320	-	BF2500297
Field Observations	Unit														
Weather		na	Sunny, overcast	Partly cloudy	Sunny, overcast	Windy, partly cloudy	Sunny, overcast	Windy, partly cloudy	Wind	Windy, snowing	na	Sunny, overcast	Sunny, overcast	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Partly cloudy, windy
Well PVC tubing height	mags	-	1.096	1.048	0.53	0.539	0.62	0.62	1.303	1.41	-	0.935	0.935	0.935	0.91
Depth to bottom	mbtPVC	-	2.86	2.931	1.735	1.739	1.741	1.741	2.689	4.636	-	2.31	2.213	2.21	2.21
Depth to water	mbtPVC	-	Dry	Dry	1.248	1.599	1.622	Dry/frozen	Frozen	Dry or frozen	-	1.525	1.512	1.41	1.52
Well depth from ground surface	mbgs	-	1.76	1.88	1.21	1.20	1.12	1.12	1.39	3.23	-	1.38	1.28	1.28	1.30
Water depth from ground surface	mbgs	2.340 ^(h)	Dry	Dry	0.718	1.060	1.002	Dry/frozen	Frozen	Dry or frozen	0.610	0.590	0.577	0.475	0.610
PVC casing elevation ^(b)	masl	-	173.844	173.668	175.79	176.266	172.7	173.249	172.07	178.246	-	180.038	180.038	180.038	180.038
Ground surface elevation ^(c)	masl	172.67	172.748	172.637	175.26	175.863	172.08	172.767	171.242	176.675	179.05	179.103	179.103	179.103	179.128
Estimated groundwater elevation	masl	170.330	-	-	174.542	174.803	171.078	-	-	-	178.440	178.513	178.526	178.628	178.518

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.

(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

(e) Water level measurement collected on 4-Sept-2024 by WSP to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and collecting a sample in 2024.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000 year rain event that occurred end of September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on 5-Sept-2024 had not been collected, but used water level measurements from 4-Sept-2024 for purging calculations

(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Distance from Landfill Qualifier ^(a)	Well Location	Background					Background					Background				
		LF-KP23-07					LF-KP23-08					LF-KP23-09				
Date (M/DD/YYYY)		9/19/2023 ^(d)	9/4/2024 ^(e)	9/5/2024 ^(f)	10/11/2024 ^(g)	8/26/2025 ^(h)	9/19/2023 ^(d)	9/4/2024 ^(e)	9/5/2024 ^(f)	10/11/2024 ^(g)	8/25/2025 ^(h)	9/19/2023 ^(d)	9/4/2024 ^(e)	9/6/2024 ^(f)	10/11/2024 ^(g)	8/25/2025 ^(h)
COA number		-	-	BF2400320	-	BF2500297	-	-	BF2400320	-	BF2500296	-	-	BF2400320	-	BF2500296
Field Observations	Unit															
Weather		na	Sunny, overcast	Sunny, overcast	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Partly cloudy, windy	na	Sunny, overcast	Sunny	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy, raining	na	Sunny, overcast	Rainy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy
Well PVC tubing height	mags	-	1.024	1.024	1.024	1.039	-	0.958	0.958 ⁽ⁱ⁾	0.958	0.962	-	0.925	0.925	0.925	0.911
Depth to bottom	mbtPVC	-	2.305	2.229	Frozen	2.31	-	2.305	2.305 ⁽ⁱ⁾	2.225	2.31	-	2.295	2.219	2.22	2.303
Depth to water	mbtPVC	-	1.120	1.093	0.85	1.138	-	1.735	1.735 ⁽ⁱ⁾	1.64	1.76	-	1.206	1.132	0.97	1.445
Well depth from ground surface	mbgs	-	1.28	1.21	-	1.27	-	1.35	1.35	1.27	1.35	-	1.37	1.29	1.30	1.39
Water depth from ground surface	mbgs	-0.160	0.096	0.069	-0.174	0.099	0.890	0.777	0.777	0.682	0.798	0.610	0.281	0.207	0.045	0.534
PVC casing elevation ^(b)	masl	-	179.744	179.744	179.744	179.744	-	180.205	180.205	180.205	180.205	-	187.958	187.958	187.958	187.958
Ground surface elevation ^(c)	masl	179	178.72	178.72	178.72	178.705	179.58	179.247	179.247	179.247	179.243	187.41	187.033	187.033	187.033	187.047
Estimated groundwater elevation	masl	179.160	178.624	178.651	178.894	178.606	178.690	178.470	178.470	178.565	178.445	186.800	186.752	186.826	186.988	186.513

BIM: Baffinland Iron Mines, LF: Landfill Facility, mags: metres above ground surface, masl: meters above sea level, mg/L: milligram per litre, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.

(b) PVC casing elevations surveyed by Baffinland Iron Mines in November 2024, and in November 2025 (with the exception of LF-KP22-05, LF-KP23-06, LF-KP23-07, LF-KP23-08 and LF-KP23-09 in 2025).

(c) Ground surface elevations were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-LF-GW2, MS-LF-GW3, MS-LF-GW-REF3, MS-LF-GW4, MS-LF-GW5, MS-LF-GW-REF1.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024)

(e) Water level measurement collected on 4-Sept-2024 by WSP to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and collecting a sample in 2024.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000 year rain event that occurred end of September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on 5-Sept-2024 had not been collected, but used water level measurements from 4-Sept-2024 for purging calculations

(j) Water level measurement collected prior to purging and collecting a sample in 2025.

Table F-2: 2023, 2024 and 2025 Water level measurements collected at the Hazardous Waste Berm Facility, Mary River Mine

Distance from HWB Facilities Qualifier ^(a)	Station	Source				Source				Source				Source								
		HWB-KP23-01				HWB-KP23-02				HWB-KP23-03				MS-HWB-GW5								
Date (M/DD/YYYY)		9/19/2023 ^(d)	9/5/2024 ^(e)	9/9/2024 ^(f)	10/11/2024 ^(g)	8/30/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/5/2024 ^(e)	9/8/2024 ^(f)	10/11/2024 ^(g)	8/30/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/5/2024 ^(e)	9/8/2024 ^(f)	10/11/2024 ^(g)	8/30/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/5/2024 ^(e)	9/9/2024 ^(f)	10/11/2024 ^(g)	8/30/2025 ⁽ⁱ⁾	
COA number		-	-	BF2400327	-	BF2500308	-	-	BF2400327	-	BF2500308	-	-	BF2400323	-	BF2500308	-	-	BF2400327	-	BF2500308	
Field Observations	Unit																					
Weather		na	Sunny, overcast	Cloudy, very windy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Wind/light snow	na	Sunny, overcast	Cloudy, rainy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Wind/light snow	na	Sunny, overcast	Cloudy, rainy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy, overcast	na	Sunny, overcast	Cloudy, windy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Wind/light snow	
Well PVC tubing height/drive point piezometer riser	mags	-	1.154	1.154	1.154	1.165	-	1.64	1.64	1.64	1.145	-	1.143	1.143	1.143	1.051	-	0.688	0.688 ^(h)	0.688	0.685	
Depth to bottom	mbtPVC	-	2.57	2.475	2.475	2.56	-	2.62	2.542	2.555	2.633	-	2.620	2.548	2.545	2.549	-	1.811	1.811 ^(h)	1.735	1.815	
Depth to water	mbtPVC	-	1.52	1.311	1.4	1.6	-	1.785	1.654	1.74	1.724	-	1.560	1.513	1.325	1.501	-	1.06	1.06 ^(h)	0.83	1.126	
Well depth from ground surface	mbgs	-	1.416	1.321	1.321	1.395	-	0.98	0.902	0.915	1.488	-	1.477	1.405	1.402	1.498	-	1.123	1.123	1.047	1.13	
Water depth from ground surface	mbgs	0.51	0.366	0.157	0.246	0.435	0.53	0.145	0.014	0.1	0.579	0.53	0.417	0.37	0.182	0.45	0.00	0.372	0.372	0.142	0.441	
PVC casing elevation/drive point piezometer riser elevation ^(b)	masl	-	174.588	174.588	174.588	174.829	-	175.263	175.263	175.263	175.554	-	175.465	175.465	175.465	175.429	-	174.358	174.358	174.358	174.425	
Ground surface elevation ^(c)	masl	173.67	173.434	173.434	173.434	173.639	175.07	173.623	173.623	173.623	174.247	174.47	174.322	174.322	174.322	174.158	173.67	173.67	173.67	173.67	173.658	
Estimated groundwater elevation	masl	173.16	173.068	173.277	173.188	173.204	174.54	173.478	173.609	173.523	173.668	173.94	173.905	173.952	174.14	173.708	173.67	173.298	173.298	173.528	173.217	

BIM: Baffinland Iron Mines, HWB: Hazard Waste Berm, GW: Groundwater, mags: metres above ground surface, masl: meters above sea level, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from HWB Facility Qualifiers are defined as: Source = Station is located within HWB Facility limits or less than 20 m from the HWB Facility limits, Proximal = Station is located more than 20 metres from HWB Facility limits, Downgradient = Station is located more than 20 m downgradient from the HWB Facility towards Camp Lake, Background = Station is located upgradient or more than 20 m from HWB Facility limits.

(b) PVC casing elevations/drive point piezometer riser elevations surveyed by Baffinland Iron Mines in November 2024. PVC casing elevations/drive point piezometer riser elevations surveyed in November 2025 at locations where a water level measurement was collected in 2025.

(c) Ground surface elevations for measurements collected prior to 2024 were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-HWB-GW3, MS-HWB-GW4, MS-HWB-GW5, MS-HWB-GW6, HWB-KP23-03, MS-HWB-GW-REF1, MS-HWB-GW-REF2, MS-HWB-GW-REF3). Ground surface elevations surveyed in November 2025 at locations where a water level measurement was collected in 2025.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024).

(e) Water level measurement collected on 5-Sept-2024 to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and sampling.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000-year rain event that occurred end of September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on sampling day had not been collected, but used water level measurements from 5-Sept-2024 for purging calculations.

(j) Water level measurement collected by BIM prior to purging and collecting a sample in 2025.

Table F-2: 2023, 2024 and 2025 Water level measurements collected at the Hazardous Waste Berm Facility, Mary River Mine

Distance from HWB Facilities Qualifier ^(a)	Station	Source				Proximal				Proximal				Proximal				Downgradient					
		MS-HWB-GW4				HWB-KP22-04				HWB-KP23-05				HWB-KP23-03									
	Date (M/DD/YYYY)	9/19/2023 ^(d)	9/5/2024 ^(e)	9/9/2024 ^(f)	10/11/2024 ^(g)	9/19/2023 ^(d)	9/5/2024 ^(e)	9/8/2024 ^(h)	10/11/2024 ^(g)	8/30/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/5/2024 ^(e)	9/8/2024 ^(h)	10/11/2024 ^(g)	8/30/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/5/2024 ^(e)	9/8/2024 ^(h)	10/11/2024 ^(g)	8/30/2025 ⁽ⁱ⁾	9/19/2023 ^(d)	9/5/2024 ^(e)	9/2/2025 ^(j)
COA number		-	-	BF2400327	-	-	-	BF2400323	-	BF2500308	-	-	BF2400327	-	BF2500308	-	-	BF2400327	-	BF2500308	-	-	BF2500317
Field Observations	Unit																						
		na	Sunny, overcast	Cloudy, very windy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	na	Sunny, overcast	Cloudy, rainy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Windy, sun and clouds	na	Sunny, overcast	Cloudy, very windy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Wind/snow	na	Sunny, overcast	Cloudy, rainy, windy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Wind/snow	na	Sunny, overcast	Sunny, windy
Well PVC tubing height/drive point piezometer riser	mags	-	0.538	0.538 ^(f)	0.538	-	1.003	1.003	1.003	0.998	-	0.961	0.961	0.961	0.937	-	1.245	1.245	1.245	1.199	-	0.578	1.328
Depth to bottom	mbtPVC	-	1.811	1.811 ^(f)	1.73	-	2.495	2.42	2.42	2.508	-	2.575	2.465	2.49	2.666	-	2.67	2.575	2.58	2.649	-	1.811	3.261
Depth to water	mbtPVC	-	0.962	0.962 ^(f)	0.53	-	1.275	1.214	1.065	1.345	-	1.48	1.132	1.35	1.498	-	1.585	1.345	1.53	1.565	-	1.06	2.753
Well depth from ground surface	mbgs	-	1.273	1.273	1.192	-	1.492	1.417	1.417	1.51	-	1.614	1.504	1.529	1.729	-	1.425	1.33	1.335	1.45	-	1.233	1.933
Water depth from ground surface	mbgs	0.52	0.424	0.424	-0.008	0.55	0.272	0.211	0.062	0.347	0.71	0.519	0.171	0.389	0.561	0.48	0.34	0.1	0.285	0.366	0.66	0.482	1.425
PVC casing elevation/drive point piezometer riser elevation ^(b)	masl	-	174.808	174.808	174.808	-	174.681	174.681	174.681	175.328	-	174.706	174.706	174.706	175.072	-	175.25	175.25	175.25	175.34	-	174.958	174.826
Ground surface elevation ^(c)	masl	174.27	174.27	174.27	174.27	174.13	173.678	173.678	173.678	174.213	174.12	173.745	173.745	173.745	174.11	174.00	174.00	174.00	174.00	174.11	174.38	174.38	172.734
Estimated groundwater elevation	masl	173.75	173.846	173.846	174.278	173.58	173.406	173.467	173.616	173.866	173.41	173.226	173.574	173.356	173.549	173.52	173.66	173.90	173.72	173.74	173.72	173.898	171.309

BIM: Baffinland Iron Mines, HWB: Hazard Waste Berm, GW: Groundwater, mags: metres above ground surface, masl: meters above sea level, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from HWB Facility Qualifiers are defined as: Source = Station is located within HWB Facility limits or less than 20 m from the HWB Facility limits, Proximal = Station is located more than 20 metres from HWB Facility limits, Downgradient = Station is located more than 20 m downgradient from the HWB Facility towards Camp Lake, Background = Station is located upgradient or more than 20 m from HWB Facility limits.

(b) PVC casing elevations/drive point piezometer riser elevations surveyed by Baffinland Iron Mines in November 2024. PVC casing elevations/drive point piezometer riser elevations surveyed in November 2025 at locations where a water level measurement was collected in 2025.

(c) Ground surface elevations for measurements collected prior to 2024 were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-HWB-GW3, MS-HWB-GW4, MS-HWB-GW5, MS-HWB-GW6, HWB-KP23-03, MS-HWB-GW-REF1, MS-HWB-GW-REF2, MS-HWB-GW-REF3. Ground surface elevations surveyed in November 2025 at locations where a water level measurement was collected in 2025.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024).

(e) Water level measurement collected on 5-Sept-2024 to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and sampling.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000-year rain event that occurred end September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on sampling day had not been collected, but used water level measurements from 5-Sept-2024 for purging calculations.

(j) Water level measurement collected by BIM prior to purging and collecting a sample in 2025.

Table F-2: 2023, 2024 and 2025 Water level measurements collected at the Hazardous Waste Berm Facility, Mary River Mine

Distance from HWB Facilities Qualifier ^(a)	Station	Downgradient			Background				Background				Background			Background		Background		Background		
		MS-HWB-GW6	MS-HWB-25-02	MS-HWB-25-02	HWB-KP22-01				MS-HWB-GW-REF3				MS-HWB-GW-REF1			MS-HWB-GW-REF2		HWB-KP22-06		MS-HWB-25-03		
Date (M/DD/YYYY)		9/5/2024 ^(b)	9/2/2025 ^(b)	8/29/2025 ^(b)	9/19/2023 ^(d)	9/5/2024 ^(e)	9/8/2024 ^(f)	10/11/2024 ^(g)	8/30/2025 ^(h)	9/19/2023 ^(d)	9/5/2024 ^(e)	9/8/2024 ^(f)	10/11/2024 ^(g)	8/30/2025 ^(h)	9/5/2024 ^(e)	9/9/2024 ⁽ⁱ⁾	8/30/2025 ^(j)	9/5/2024 ^(e)	8/30/2025 ^(j)	9/5/2024 ^(e)	9/2/2025 ^(k)	9/2/2025 ^(l)
COA number		-	-	-	-	-	BF2400323	-	BF2500308	-	-	BF2400323	-	BF2500308	-	BF2400330	BF2500308	-	-	-	BF2500317	BF2500317
Field Observations	Unit																					
Weather		Sunny, overcast	Sunny, windy	Wind/snow	na	Sunny, overcast	Rainy, windy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Cloudy, windy	na	Sunny, overcast	Rainy, windy	Unknown the day of measurement, but was collected following the 1 in 1000-year rain event	Cloudy, windy	Sunny, overcast	Cloudy, windy	Windy, sun and clouds	Sunny, overcast	Windy, cloudy	Sunny, overcast	Sunny, windy	Sunny, windy
Well PVC tubing height/drive point piezometer riser	mags	0.405	0.398	1.368	-	1.036	1.036	1.036	1.28	-	0.517	0.517 ^(f)	0.517	0.523	0.665	0.665	0.639	0.628	0.619	1.16	1.118	1.314
Depth to bottom	mbtPVC	1.815	0.927	4.616	-	2.505	2.432	2.43	2.431	-	1.75	1.75 ^(f)	- ^(h)	1.829	1.735	1.747	1.818	1.911	1.742	2.73	2.753	3.41
Depth to water	mbtPVC	Dry	Frozen	Dry	-	1.485	1.412	1.285	1.394	-	0.675	0.675 ^(f)	0.83	0.534	Dry	0.745	0.779	0.931	Dry	Dry	1.929	2.362
Well depth from ground surface	mbgs	1.41	0.529	3.248	-	1.469	1.396	1.394	1.151	-	1.233	1.233	-	1.306	1.07	1.082	1.179	1.283	1.123	1.57	1.635	2.096
Water depth from ground surface	mbgs	Dry	Frozen	Dry	0.5	0.449	0.376	0.249	0.114	0.00	0.158	0.158	0.313	0.011	Dry	0.08	0.14	0.303	Dry	Dry	0.811	1.048
PVC casing elevation/drive point piezometer riser elevation ^(b)	masl	173.425	173.546	175.501	-	175.394	175.394	175.394	175.357	-	174.657	174.657	-	174.536	173.355	173.355	173.151	174.918	174.952	na	174.908	175.405
Ground surface elevation ^(c)	masl	173.02	173.167	174.137	174.36	174.358	174.358	174.358	174.275	174.14	174.14	174.14	174.14	174.253	172.69	172.69	172.602	174.29	174.379	173.74	173.847	173.949
Estimated groundwater elevation	masl	-	-	-	173.86	173.909	173.982	174.109	174.16	174.14	173.982	173.982	173.827	174.242	-	172.61	172.462	173.987	-	-	173.036	172.901

BIM: Baffinland Iron Mines, HWB: Hazard Waste Berm, GW: Groundwater, mags: metres above ground surface, masl: meters above sea level, mbtPVC: metres below top of PVC (or riser for drive point piezometer), na: not available, PVC: Polyvinyl chloride

(a) Distance from HWB Facility Qualifiers are defined as: Source = Station is located within HWB Facility limits or less than 20 m from the HWB Facility limits, Proximal = Station is located more than 20 metres from HWB Facility limits, Downgradient = Station is located more than 20 m downgradient from the HWB Facility towards Camp Lake, Background = Station is located upgradient or more than 20 m from HWB Facility limits.

(b) PVC casing elevations/drive point piezometer riser elevations surveyed by Baffinland Iron Mines in November 2024. PVC casing elevations/drive point piezometer riser elevations surveyed in November 2025 at locations where a water level measurement was collected in 2025.

(c) Ground surface elevations for measurements collected prior to 2024 were calculated based on PVC tubing height and surveyed casing elevations. Ground surface elevations for location that had not been surveyed in 2024 come from previous reports (Tetra Tech 2022, KP 2023, KP 2024) and include: MS-HWB-GW3, MS-HWB-GW4, MS-HWB-GW5, MS-HWB-GW6, HWB-KP23-03, MS-HWB-GW-REF1, MS-HWB-GW-REF2, MS-HWB-GW-REF3). Ground surface elevations surveyed in November 2025 at locations where a water level measurement was collected in 2025.

(d) Water level measurement collected during the 2023 Program by KP (KP, 2024).

(e) Water level measurement collected on 5-Sept-2024 to assess groundwater levels. No sample collected.

(f) Water level measurement collected prior to purging and sampling.

(g) Water level measurement collected on 11-Oct-2024 by Baffinland Iron Mines. This water level measurement was collected after the 1 in a 1000-year rain event that occurred end of September 2024. No sample collected.

(h) Well is frozen.

(i) Water levels on sampling day had not been collected, but used water level measurements from 5-Sept-2024 for purging calculations.

(j) Water level measurement collected by BIM prior to purging and collecting a sample in 2025.

Table F-3: 2023 to 2025 Groundwater and Seep Analytical Results collected at the Landfill Facility, Mary River Mine

Distance from Landfill Facility Qualifier ^(a)	Station Sample Date (M/DD/YYYY)	FIGQ Guideline ^(c) Commercial/Industrial Tier 2 Water Use/Pathway: Protection of Freshwater Aquatic Life (AW-F)	Yukon Contaminated Sites Regulation (CSR) ^(b) Protection of Freshwater Aquatic Life (AW-F)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ^(d)	Water Licence 2AM- MRY2540 Effluent Quality Discharge Limits ^(d)	Source LF-KP22-01				Source LF-KP22-03			Source LF-KP23-13		Source MS-LF-GW1		Source MS-LF-GW3		Source LF-DS-SEEP-01			Source LF-DS-SEEP-02		Proximal LF-KP22-05			
						9/03/2023	9/07/2024	8/28/2025	8/28/2025	9/03/2023	9/07/2024	8/27/2025	9/07/2024	8/28/2025	9/19/2023	8/28/2025	9/12/2023	8/27/2025	8/17/2024	9/07/2024	8/29/2025	8/17/2024	9/07/2024	9/03/2023	9/06/2024	8/26/2025	
						BF2300267	BF2400323	BF2500304	BF2500304	BF2300267	BF2400323	BF2500299	BF2400323	BF2500303	BF2300307	BF2500303	BF2300288	BF2500300	BF2400326	BF2400266	BF2500307	BF2400266	BF2400326	BF2300267	BF2400320	BF2500297	
						GW				GW			GW		GW		GW		SP			SP		GW			
Parameter	Unit	Soil Type: Coarse Grain	Maximum Concentration of Any Grab Sample	Maximum Concentration of Any Grab Sample	-	-	FDA	FD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Tetrachloroethylene (PCE)	µg/L	110	1100	-	-	-	40.8	14.7	14.4	-	1.38	4.64	< 0.5	< 0.50	-	12.0	-	4.52	-	-	< 0.50	-	-	-	< 0.5	< 0.50	
Trichloroethylene (TCE)	µg/L	29	200	-	-	-	3.95	7.53	7.33	-	< 0.5	< 0.5	< 0.5	< 0.5	-	9.74	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
Trichlorofluoromethane	µg/L	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
Trihalomethanes, Total	µg/L	-	-	-	-	-	< 1.0	< 1.0	< 1.0	-	< 1	< 1.0	< 1	< 1.0	-	< 1.0	-	< 1.0	-	-	< 1	-	-	-	< 1	< 1	
Chloroethane	µg/L	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
hexanone, 2-	µg/L	-	-	-	-	-	< 20	< 20	< 20	-	< 20	< 20	< 20	< 20	-	< 20	-	< 20	-	-	< 20	-	-	-	< 20	< 20	
n-Hexane	µg/L	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
Bromodichloromethane	µg/L	8500	-	-	-	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
Vinyl chloride	µg/L	-	-	-	-	-	< 0.5	< 0.2	< 0.2	-	< 0.5	< 0.2	< 0.5	< 0.2	-	< 0.2	-	< 0.2	-	-	< 0.2	-	-	-	< 0.5	< 0.2	
Bromoform	µg/L	3700	-	-	-	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
Chloroform	µg/L	1.8	20	-	-	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
Monochlorobenzene	µg/L	1.3	13	-	-	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	< 0.5	-	-	-	< 0.5	< 0.5	
Carbon tetrachloride	µg/L	13	130	-	-	-	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2	< 0.2	< 0.2	-	< 0.2	-	< 0.2	-	-	< 0.2	-	-	-	< 0.2	< 0.2	
Carbon disulfide	µg/L	-	-	-	-	-	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	-	< 1	-	< 1	-	-	< 1	-	-	-	< 1	< 1	
Polycyclic Aromatic Hydrocarbons (PAHs)																											
Acenaphthene	µg/L	5.8	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.042	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Acenaphthylene	µg/L	46	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.042	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.013	< 0.01	
Acridine	µg/L	0.05	0.5	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Anthracene	µg/L	0.012	1	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
1+2-Methylnaphthalenes	µg/L	180	-	-	-	-	0.04	0.051	0.054	-	< 0.015	< 0.015	0.173	< 0.015	-	< 0.015	-	< 0.015	-	-	< 0.015	-	-	-	< 0.015	< 0.015	
1-Methylnaphthalene	µg/L	-	-	-	-	-	0.027	0.04	0.042	-	< 0.01	< 0.01	0.173	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
2-Methylnaphthalene	µg/L	-	-	-	-	-	0.013	0.011	0.012	-	< 0.01	< 0.01	< 0.042	0.014	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
B(a)P Total Potency Equivalent	µg/L	-	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	0.025	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Benzo(a)anthracene	µg/L	0.018	1	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Benzo(a)pyrene	µg/L	0.015	0.1	-	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005	-	< 0.005	-	-	< 0.005	-	-	-	< 0.005	< 0.005	
Benzo(b&j)fluoranthene	µg/L	0.48	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Benzo(b+k)fluoranthene	µg/L	-	-	-	-	-	< 0.015	< 0.015	< 0.015	-	< 0.015	< 0.015	< 0.015	< 0.015	-	< 0.015	-	< 0.015	-	-	< 0.015	-	-	-	< 0.015	< 0.015	
Benzo(g,h,i)perylene	µg/L	0.17	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	0.016	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Benzo(k)fluoranthene	µg/L	0.48	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Chrysene	µg/L	1.4	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Dibenz(a,h)anthracene	µg/L	0.26	-	-	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	0.0196	< 0.005	-	< 0.005	-	< 0.005	-	-	< 0.005	-	-	-	< 0.005	< 0.005	
Fluoranthene	µg/L	0.04	2	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Fluorene	µg/L	3	120	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.042	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Indeno(1,2,3-cd)pyrene	µg/L	0.21	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	0.016	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Naphthalene	µg/L	1.1	10	-	-	-	< 0.034	< 0.078	< 0.085	-	< 0.01	< 0.01	0.051	0.072	-	< 0.028	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	0.01	
Perylene	µg/L	-	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Phenanthrene	µg/L	0.4	3	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Pyrene	µg/L	0.025	0.2	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	-	< 0.01	-	-	< 0.01	-	-	-	< 0.01	< 0.01	
Quinoline	µg/L	3.4	34	-	-	-	< 0.082	< 0.094	< 0.094	-	< 0.01	< 0.01	< 0.015	< 0.022	-	0.052	-	< 0.01	-	-	< 0.018	-	-	-	< 0.01	< 0.01	
Total Metals																											
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0343	-	-	0.0565	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00032	-	-	0.00155	-	-	-
Arsenic	mg/L	-	0.5	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00031	-	-	< 0.001	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0323	-	-	0.0452	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	< 0.0002	-	-	-
Bismuth																											

Table F-3: 2023 to 2025 Groundwater and Seep Analytical Results collected at the Landfill Facility, Mary River Mine

Parameter	Unit	Distance from Landfill Facility Qualifier ^(a) Station Sample Date (M/DD/YYYY)	FIGQ Guideline ^(c) Commercial/Industrial Tier 2 Water Use/Pathway: Protection of Freshwater Aquatic Life (AW-F)	Yukon Contaminated Sites Regulation (CSR) ^(h) Protection of Freshwater Aquatic Life (AW-F)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ⁽ⁱ⁾	Water Licence 2AM- MRY2540 Effluent Quality Discharge Limits ⁽ⁱ⁾	Source LF-KP22-01				Source LF-KP22-03			Source LF-KP23-13		Source MS-LF-GW1		Source MS-LF-GW3		Source LF-DS-SEEP-01		Source LF-DS-SEEP-02		Proximal LF-KP22-05					
							9/03/2023	9/07/2024	8/28/2025	8/28/2025	9/03/2023	9/07/2024	8/27/2025	9/07/2024	8/28/2025	9/19/2023	8/28/2025	9/12/2023	8/27/2025	8/17/2024	9/07/2024	8/29/2025	8/17/2024	9/07/2024	8/17/2024	9/07/2024	9/03/2023	9/06/2024	8/26/2025
							BF2300267	BF2400323	BF2500304	BF2500304	BF2300267	BF2400323	BF2500299	BF2400323	BF2500303	BF2300307	BF2500303	BF2300288	BF2500300	BF2400326	BF2400266	BF2500307	BF2400266	BF2400326	BF2300267	BF2400320	BF2500297		
							GW				GW			GW		GW		GW		SP		SP		GW					
QA/QC	Soil Type: Coarse Grain			Maximum Concentration of Any Grab Sample	Maximum Concentration of Any Grab Sample																								
Beryllium	mg/L	0.0053	0.053	-	-	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002				
Bismuth	mg/L	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005				
Boron	mg/L	1.5	-	-	-	2.99	2.4	1.8	1.8	0.84	0.54	0.56	0.28	0.02	3.6	1.22	0.879	0.605	0.217	0.184	0.044	1.58	1.9	< 0.1	0.023	0.047			
Cadmium	mg/L	0.240	^(f) 0.00010 - 0.00060	^(g) -	-	0.000086	< 0.00005	0.000062	0.000081	< 0.00005	0.000088	0.000089	0.000081	< 0.00005	0.0000717	0.000135	< 0.00005	0.000088	0.000088	0.000084	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005			
Cesium	mg/L	-	-	-	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.000023	0.000023	< 0.00001	< 0.0001	0.00003	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001			
Chromium	mg/L	0.0089	0.010	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0011	0.0011	< 0.0005	< 0.0005	< 0.005	< 0.005	< 0.005	0.00077	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005			
Cobalt	mg/L	-	0.0090	-	-	0.0172	0.0077	0.00682	0.00668	< 0.001	0.00017	< 0.0001	0.0011	0.00046	0.0126	0.00404	< 0.001	< 0.0001	0.00214	0.00109	0.0001	0.0158	0.00928	0.00983	0.0092	0.00614			
Copper	mg/L	0.0020 - 0.0040	^(g) 0.020 - 0.090	^(g) 0.3	^(m) 0.6	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0017	0.00168	0.0010	0.0016	0.00354	< 0.002	0.00247	0.00206	0.00111	0.00095	0.00092	< 0.002	< 0.002	< 0.002	0.00069	0.00047			
Iron	mg/L	0.30	-	-	-	1.93	0.52	0.242	0.233	< 0.1	< 0.1	< 0.1	0.017	< 0.1	0.247	< 0.1	< 0.1	< 0.1	< 0.1	0.466	0.881	0.016	5.42	0.566	2.01	4.8	5.2		
Lead	mg/L	0.0010 - 0.0070	^(g) 0.040 - 0.16	^(g) 0.2	^(m) 0.2	0.000839	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00032	< 0.00005	0.00014	< 0.00005	< 0.0005	< 0.0005	< 0.0005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005			
Lithium	mg/L	-	-	-	-	0.512	0.28	0.143	0.135	0.0669	0.069	0.0989	0.0015	0.0023	0.766	0.0714	0.0398	0.104	0.0133	0.0119	0.0044	0.241	0.298	< 0.1	0.0021	0.0029			
Manganese	mg/L	-	-	-	-	6.22	3.3	1.76	1.76	0.029	0.030	0.0086	0.47	0.195	4.47	0.997	0.00128	0.00017	0.641	0.363	0.0297	2.91	1.94	2.18	3.0	1.99			
Mercury	mg/L	0.000026	0.0010	-	-	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005			
Molybdenum	mg/L	0.073	10	-	-	0.0226	0.00838	0.00639	0.00639	0.00185	0.00395	0.00688	0.0124	0.00326	0.0118	0.00397	0.00082	0.00239	0.00313	0.00255	0.00128	0.0102	0.00664	< 0.00005	0.00005	0.000463			
Nickel	mg/L	0.025 - 0.15	^(g) 0.25 - 1.5	^(g) 0.5	^(m) 1	0.0949	0.0667	0.0738	0.0742	0.0161	0.0146	0.0115	0.00546	0.00366	0.126	0.0855	0.0176	0.0126	0.00697	0.00503	0.00115	0.0316	0.0238	0.00664	0.0049	0.00384			
Phosphorus	mg/L	-	-	-	-	< 0.5	< 0.05	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 0.5	0.078			
Rubidium	mg/L	-	-	-	-	0.00945	0.00998	0.00972	0.00915	0.01	0.0108	0.0122	0.00508	0.00534	0.0156	0.00756	0.0124	0.0121	0.00653	0.00564	0.00532	0.0054	0.00522	< 0.002	0.00034	0.00034			
Selenium	mg/L	0.0010	0.010	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000124	0.000099	< 0.00005	< 0.00005	< 0.0005	< 0.0005	< 0.0005	0.000054	-	-	< 0.00005	-	-	< 0.0005	0.0017	0.0042			
Silicon	mg/L	-	-	-	-	7.36	6.13	5.63	5.57	5.64	5.86	5.75	2.77	2.15	6.1	5.46	6.23	5.55	2.37	2.52	1.7	6.38	6.47	3.07	3.2	3.15			
Silver	mg/L	0.00025	0.0005 - 0.015	^(g) -	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001			
Strontium	mg/L	-	-	-	-	1.02	1.21	1.38	1.4	0.0527	0.0574	0.0601	0.0487	0.0324	1.18	1.15	0.0391	0.0415	0.521	0.472	0.0562	1.49	1.58	0.0382	0.0465	0.0404			
Sulfur	mg/L	-	-	-	-	349	410	372	367	38.1	30.8	24.1	14.4	6.5	400	246	36.8	23.3	112	96.3	9.21	446	434	13.7	4.91	6.63			
Tellurium	mg/L	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.002	< 0.002	< 0.002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002			
Thallium	mg/L	0.00080	0.0030	-	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.000028	0.000031	0.000018	0.000018	0.000156	0.000128	< 0.0001	0.000044	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001			
Thorium	mg/L	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001			
Tin	mg/L	-	-	-	-	< 0.001	0.00228	< 0.001	< 0.001	< 0.001	0.00025	< 0.0001	0.00049	< 0.0001	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001			
Titanium	mg/L	0.10	1.0	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003			
Tungsten	mg/L	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001			
Uranium	mg/L	0.015	3.0	-	-	0.0208	0.036	0.032	0.032	0.00692	0.00752	0.00761	0.00769	0.00446	0.0408	0.022	0.00629	0.00605	0.00478	0.00343	0.00205	0.0145	0.0107	0.00074	0.000604	0.000416			
Vanadium	mg/L	-	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005			
Zinc	mg/L	0.030	0.075 - 2.4	^(g) 0.5	^(m) 1	0.0146	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.01	< 0.01	< 0.001	0.0528	0.047	0.0031	0.28	0.273	< 0.01	< 0.001	< 0.001			
Zirconium	mg/L	-	-	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.003	< 0.003	< 0.003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.00042	0.00041			

Parameter	Unit	Distance from Landfill Facility Qualifier ^(a)	Station Sample Date (M/DD/YYYY)	FIGQ Guideline ^(c) Commercial/Industrial	Yukon Contaminated Sites Regulation (CSR) ^(b)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ^(d)	Proximal		Proximal		Proximal		Proximal		Downgradient		Downgradient		Background		Background									
							LF-KP23-05		LF-KP23-11		MS-LF-GW2		MS-LF-GW-REF2		LF-KP23-01		LF-KP23-04		LF-KP23-06		LF-KP23-07									
							9/10/2023	9/05/2024	8/27/2025	9/08/2023	9/06/2024	8/26/2025	9/14/2023	9/07/2024	8/29/2025	9/15/2023	9/06/2024	9/11/2023	9/07/2024	8/26/2025	9/14/2023	9/07/2024	8/29/2025	9/10/2023	9/05/2024	8/26/2025	9/07/2023	9/05/2024	8/26/2025	
							BF2300280	BF2400320	BF2500299	BF2300277	BF2400320	BF2500297	BF2300292	BF2400323	BF2500306	BF2300298	BF2400320	BF2300287	BF2400323	BF2500297	BF2300292	BF2400323	BF2500306	BF2300280	BF2400320	BF2500297	BF2300277	BF2400320	BF2500297	
							GW		GW		GW		GW		GW		GW		GW		GW		GW		GW		GW			
							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Matrix																														
QA/QC																														
Soil Type: Coarse Grain																														
Maximum Concentration of Any Grab Sample																														
Tetrachloroethylene (PCE)	µg/L	110	1100	-	-	-	< 0.5	< 0.50	-	< 0.5	< 0.50	-	16.7	13.1	-	< 0.5	-	< 0.5	< 0.50	-	< 0.5	1.59	-	< 0.5	< 0.50	-	< 0.5	< 0.50		
Trichloroethylene (TCE)	µg/L	29	200	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	0.78	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
Trichlorofluoromethane	µg/L	-	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
Trihalomethanes, Total	µg/L	-	-	-	-	-	< 1	< 1	-	< 1	< 1	-	< 1	< 1	-	< 1	-	< 1	< 1	-	< 1	< 1	-	< 1	< 1	-	< 1	< 1		
Chloroethane	µg/L	-	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
hexanone, 2-	µg/L	-	-	-	-	-	< 20	< 20	-	< 20	< 20	-	< 20	< 20	-	< 20	-	< 20	< 20	-	< 20	< 20	-	< 20	< 20	-	< 20	< 20		
n-Hexane	µg/L	-	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
Bromodichloromethane	µg/L	8500	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
Vinyl chloride	µg/L	-	-	-	-	-	< 0.5	< 0.2	-	< 0.5	< 0.2	-	< 0.5	< 0.2	-	< 0.5	-	< 0.5	< 0.2	-	< 0.5	< 0.2	-	< 0.5	< 0.2	-	< 0.5	< 0.2		
Bromoform	µg/L	3700	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
Chloroform	µg/L	1.8	20	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
Monochlorobenzene	µg/L	1.3	13	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	< 0.5	< 0.5		
Carbon tetrachloride	µg/L	13	130	-	-	-	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	-	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	< 0.2		
Carbon disulfide	µg/L	-	-	-	-	-	< 1	< 1	-	< 1	< 1	-	< 1	< 1	-	< 1	-	< 1	< 1	-	< 1	< 1	-	< 1	< 1	-	< 1	< 1		
Polycyclic Aromatic Hydrocarbons (PAHs)																														
Acenaphthene	µg/L	5.8	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Acenaphthylene	µg/L	46	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Acridine	µg/L	0.05	0.5	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Anthracene	µg/L	0.012	1	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
1+2-Methylnaphthalenes	µg/L	180	-	-	-	-	< 0.015	< 0.033	-	< 0.015	< 0.015	-	< 0.015	< 0.015	-	< 0.015	-	< 0.015	< 0.015	-	< 0.015	< 0.015	-	< 0.015	< 0.015	-	< 0.015	< 0.015		
1-Methylnaphthalene	µg/L	-	-	-	-	-	< 0.01	0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
2-Methylnaphthalene	µg/L	-	-	-	-	-	< 0.01	0.023	-	< 0.01	0.013	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	0.013	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
B(a)P Total Potency Equivalent	µg/L	-	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Benzo(a)anthracene	µg/L	0.018	1	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Benzo(a)pyrene	µg/L	0.015	0.1	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005		
Benzo(b&j)fluoranthene	µg/L	0.48	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Benzo(b+k)fluoranthene	µg/L	-	-	-	-	-	< 0.015	< 0.015	-	< 0.015	< 0.015	-	< 0.015	< 0.015	-	< 0.015	-	< 0.015	< 0.015	-	< 0.015	< 0.015	-	< 0.015	< 0.015	-	< 0.015	< 0.015		
Benzo(g,h,i)perylene	µg/L	0.17	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/L	0.48	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Chrysene	µg/L	1.4	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/L	0.26	-	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005		
Fluoranthene	µg/L	0.04	2	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Fluorene	µg/L	3	120	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/L	0.21	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Naphthalene	µg/L	1.1	10	-	-	-	0.021	0.038	-	0.018	0.015	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	0.024	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Perylene	µg/L	-	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Phenanthrene	µg/L	0.4	3	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01		
Pyrene	µg/L	0.025	0.2	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	<												

Table F-3: 2023 to 2025 Groundwater and Seep Analytical Results collected at the Landfill Facility, Mary River Mine

Parameter	Unit	Distance from Landfill Facility Qualifier ^(a)	FIGQ Guideline ^(c) Commercial/Industrial Tier 2 Water Use/Pathway: Protection of Freshwater Aquatic Life (AW-F)	Yukon Contaminated Sites Regulation (CSR) ^(b) Protection of Freshwater Aquatic Life (AW-F)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ^(d)	Background			Background				
						LF-KP23-08			LF-KP23-09				
						9/07/2023	9/05/2024	8/25/2025	9/06/2023	9/06/2024	9/06/2024	8/25/2025	
Station	Sample Date (M/DD/YYYY)	COA number	Matrix	QA/QC	Soil Type: Coarse Grain	Maximum Concentration of Any Grab Sample	BF2300277	BF2400320	BF2500296	BF2300277	BF2400320	BF2400320	BF2500296
							GW	GW	GW	FDA	FD		
Field Observations													
Weather	-	-	-	-	-	na	Sunny	Windy, raining	na	Rainy	Rainy	Windy	
Routine Parameters													
Dissolved Oxygen, Field	mg/L	-	-	-	-	13.5	12.59	-	7.24	-	4.83		
Dissolved Oxygen, Percent, Field	%	-	-	-	-	100.6	93.3	-	52.2	-	34.8		
pH, Field	pH unit	6.5 - 9.0	-	6.5 - 9.0	-	7.53	7.8	-	6.81	-	6.91		
pH, Lab	pH unit	6.5 - 9.0	-	6.5 - 9.0	-	7.68	7.66	7.67	7.98	7.02	6.95	6.94	
Data Quality Objective (DQO) - pH	pH unit	-	-	-	-	0.13	0.13	-	0.21	-	0.03		
Specific Conductivity, Field	µS/cm	-	-	-	-	263.4	271.5	-	309.8	-	304.2		
Conductivity, Lab	µS/cm	-	-	-	-	269.0	275.0	248.0	318.0	348.0	347.0	279.0	
Data Quality Objective (DQO) - Conductivity	µS/cm	-	-	-	-	4.3	9.0	-	11.6	-	8.6		
Temperature, Field	°C	-	-	-	-	2	2.9	-	0.9	-	1.8		
Total Alkalinity	mg/L as CaCO ₃	-	-	-	-	147	131	-	180	186	147		
Total Suspended Solids	mg/L	-	-	-	(k)	24.3	30.4	18	22.9	53.3	25.2	65.4	
Total Dissolved Solids	mg/L	-	-	-	-	156	117	131	181	177	164	138	
Turbidity, Lab	NTU	-	-	-	-	19.3	10	11.7	20.9	37	15	24.7	
Turbidity, Field	NTU	-	-	-	-	30.68	23.91	-	130.7	-	16.6		
Hardness, as CaCO ₃ (calculated) ^(b)	mg/L	-	-	-	-	147	148	140	170	184	183	155	
Major Ions													
Calcium	mg/L	-	-	-	-	27.6	27.6	27.5	31.8	34.2	34.3	31	
Chloride	mg/L	120	-	-	-	0.93	0.94	0.51	0.87	0.93	0.87	< 0.5	
Bromide	mg/L	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Fluoride	mg/L	0.12	2.0 - 3.0	(g)	-	0.047	0.043	0.039	0.083	0.061	0.059	0.06	
Magnesium	mg/L	-	-	-	-	19	19.3	17.3	21.9	23.9	23.7	18.9	
Potassium	mg/L	-	-	-	-	0.848	0.702	0.659	1.03	0.791	0.784	0.731	
Sodium	mg/L	-	-	-	-	2.19	1.39	0.934	5.22	4.81	4.78	2.61	
Sulfate	mg/L	100	1,000	-	-	1.68	1.5	1	0.96	<0.3	<0.3	< 0.3	
Nutrients													
Nitrate	mg/L as N	2.9	400	-	-	0.027	< 0.02	< 0.02	0.047	0.028	0.028	0.056	
Nitrite	mg/L as N	0.060	0.20 - 2.0	(i)	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Total Ammonia	mg/L as N	0.017 - 190	(a)	1.31 - 18.5	(a)	< 0.005	0.0076	< 0.005	0.0073	0.0089	0.0094	0.0108	
Phosphorus, Nutrient	mg/L	-	-	-	-	0.135	0.133	0.0043	0.22	1.23	1.15	0.0115	
Phosphorus, total dissolved	mg/L	-	-	-	-	-	0.0040	0.0842	-	0.0117	0.0085	0.319	
Total Kjeldahl Nitrogen	mg/L	-	-	-	-	0.192	0.218	0.212	0.217	0.169	0.18	0.182	
Organic Carbon													
Dissolved Organic Carbon	mg/L	-	-	-	-	4.45	4.8	3.2	4.33	3.32	3.72	3.04	
Total Organic Carbon	mg/L	-	-	-	-	4.76	-	-	4.06	-	-	-	
Petroleum Hydrocarbons (PHCs) and BTEX													
Benzene	µg/L	690	4000	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Toluene	µg/L	83	390	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Ethylbenzene	µg/L	41000	2000	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Styrene	µg/L	72	720	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
o-Xylene	µg/L	-	-	-	-	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	
m+p-Xylenes	µg/L	-	-	-	-	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	
Total Xylenes	µg/L	18000	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
BTEX, Total	µg/L	-	-	-	-	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
F1 (C6-C10)	µg/L	9800	-	-	-	< 25	< 25	< 25	< 25	< 25	< 25	< 25	
F1(C6-C10)-BTEX	µg/L	-	-	-	-	< 25	< 25	< 25	< 25	< 25	< 25	< 25	
F2 (C10-C16)	µg/L	1300	-	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
F3 (C16-C34)	µg/L	-	-	-	-	< 250	< 250	< 250	< 250	< 250	< 250	< 250	
F4 (C34-C50)	µg/L	-	-	-	-	< 250	< 250	< 250	< 250	< 250	< 250	< 250	
Total Petroleum Hydrocarbons	µg/L	-	-	-	-	< 370	< 370	< 370	< 370	< 370	< 370	< 370	
Oil and Grease													
Total Oil and Grease	mg/L	-	-	-	-	< 5	-	-	< 5	-	-	-	
Volatile Organic Compounds (VOCs)													
1,1,1,2-Tetrachloroethane	µg/L	2500	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,1,1-Trichloroethane	µg/L	1100	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,1,2,2-Tetrachloroethane	µg/L	3000	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,1,2-Trichloroethane	µg/L	12000	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,1-Dichloroethane	µg/L	260000	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,1-Dichloroethylene	µg/L	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,2-Dibromoethane (ethylene dibromide)	µg/L	12000	-	-	-	< 0.2	< 0.2	-	< 0.2	< 0.2	< 0.2	< 0.2	
1,2-Dichlorobenzene	µg/L	0.7	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,2-Dichloroethane	µg/L	100	1000	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,2-Dichloropropane	µg/L	7200	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,3-Dichlorobenzene	µg/L	150	1500	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,3-Dichloropropene (cis & trans)	µg/L	310	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
1,4-Dichlorobenzene	µg/L	26	260	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
Methyl Ethyl Ketone	µg/L	150000	-	-	-	< 20	< 20	-	< 20	< 20	< 20	< 20	
Methyl Isobutyl Ketone	µg/L	58000	-	-	-	< 20	< 20	-	< 20	< 20	< 20	< 20	
Methyl t-butyl ether (MTBE)	µg/L	10000	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
Acetone	µg/L	13000	-	-	-	< 20	< 20	-	< 20	< 20	< 20	< 20	
Bromomethane	µg/L	400	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
cis-1,2-Dichloroethylene	µg/L	18000	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
trans-1,2-Dichloroethylene	µg/L	28000	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
Dichloroethylene, cis+trans-1,2-	µg/L	-	-	-	-	< 0.71	< 0.71	-	< 0.71	< 0.71	< 0.71	< 0.71	
cis-1,3-Dichloropropene	µg/L	-	-	-	-	< 0.3	< 0.3	-	< 0.3	< 0.3	< 0.3	< 0.3	
trans-1,3-Dichloropropene	µg/L	-	-	-	-	< 0.3	< 0.3	-	< 0.3	< 0.3	< 0.3	< 0.3	
Dibromochloromethane	µg/L	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
Dichlorodifluoromethane	µg/L	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	
Dichloromethane	µg/L	98	980	-	-	< 1	< 1	-	< 1	< 1	< 1	< 1	
Chloromethane	µg/L	-	-	-	-	< 2	< 2	-	< 2	< 2	< 2	< 2	

Table F-3: 2023 to 2025 Groundwater and Seep Analytical Results collected at the Landfill Facility, Mary River Mine

Distance from Landfill Facility Qualifier ^(d)		FIGQ Guideline ^(c) Commercial/Industrial	Yukon Contaminated Sites Regulation (CSR) ^(h)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ⁽ⁱ⁾	Background LF-KP23-08			Background LF-KP23-09				
Station Sample Date (M/DD/YYYY)	COA number				Matrix QA/QC	9/07/2023	9/05/2024	8/25/2025	9/06/2023	9/06/2024	9/06/2024	8/25/2025
Parameter	Unit	Soil Type: Coarse Grain	Protection of Freshwater Aquatic Life (AW-F)	Maximum Concentration of Any Grab Sample	GW			GW				
					-	-	-	FDA	FD	-		
Tetrachloroethylene (PCE)	µg/L	110	1100	-	-	< 0.5	<0.50	-	< 0.5	< 0.5	<0.50	
Trichloroethylene (TCE)	µg/L	29	200	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
Trichlorofluoromethane	µg/L	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
Trihalomethanes, Total	µg/L	-	-	-	-	< 1	< 1	-	< 1	< 1	< 1	
Chloroethane	µg/L	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
hexanone, 2-	µg/L	-	-	-	-	< 20	< 20	-	< 20	< 20	< 20	
n-Hexane	µg/L	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	µg/L	8500	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
Vinyl chloride	µg/L	-	-	-	-	< 0.5	< 0.2	-	< 0.5	< 0.5	< 0.2	
Bromoform	µg/L	3700	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
Chloroform	µg/L	1.8	20	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
Monochlorobenzene	µg/L	1.3	13	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	
Carbon tetrachloride	µg/L	13	130	-	-	< 0.2	< 0.2	-	< 0.2	< 0.2	< 0.2	
Carbon disulfide	µg/L	-	-	-	-	< 1	< 1	-	< 1	< 1	< 1	
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene	µg/L	5.8	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Acenaphthylene	µg/L	46	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Acridine	µg/L	0.05	0.5	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Anthracene	µg/L	0.012	1	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
1+2-Methylnaphthalenes	µg/L	180	-	-	-	< 0.015	< 0.015	-	< 0.015	< 0.015	< 0.015	
1-Methylnaphthalene	µg/L	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
2-Methylnaphthalene	µg/L	-	-	-	-	< 0.01	0.011	-	< 0.01	< 0.01	0.014	
B(a)P Total Potency Equivalent	µg/L	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Benzo(a)anthracene	µg/L	0.018	1	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Benzo(a)pyrene	µg/L	0.015	0.1	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	
Benzo(b&j)fluoranthene	µg/L	0.48	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Benzo(b+j+k)fluoranthene	µg/L	-	-	-	-	< 0.015	< 0.015	-	< 0.015	< 0.015	< 0.015	
Benzo(g,h,i)perylene	µg/L	0.17	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Benzo(k)fluoranthene	µg/L	0.48	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Chrysene	µg/L	1.4	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Dibenz(a,h)anthracene	µg/L	0.26	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	
Fluoranthene	µg/L	0.04	2	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Fluorene	µg/L	3	120	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Indeno(1,2,3-cd)pyrene	µg/L	0.21	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Naphthalene	µg/L	1.1	10	-	-	< 0.01	0.011	-	< 0.01	< 0.01	0.014	
Perylene	µg/L	-	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Phenanthrene	µg/L	0.4	3	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Pyrene	µg/L	0.025	0.2	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	
Quinoline	µg/L	3.4	34	-	-	< 0.01	0.019	-	< 0.01	< 0.01	< 0.01	
Total Metals												
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	
Arsenic	mg/L	-	-	0.5	-	-	-	-	-	-	-	
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	
Bismuth	mg/L	-	-	-	-	-	-	-	-	-	-	
Boron	mg/L	-	-	-	-	-	-	-	-	-	-	
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	
Calcium	mg/L	-	-	-	28.5	-	-	34.7	-	-	-	
Cesium	mg/L	-	-	-	-	-	-	-	-	-	-	
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-	
Copper	mg/L	-	-	0.3	-	-	-	-	-	-	-	
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	
Lead	mg/L	-	-	0.2	-	-	-	-	-	-	-	
Lithium	mg/L	-	-	-	-	-	-	-	-	-	-	
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	
Magnesium	mg/L	-	-	-	20.4	-	-	22.6	-	-	-	
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	
Molybdenum	mg/L	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/L	-	-	0.5	-	-	-	-	-	-	-	
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-	
Potassium	mg/L	-	-	-	1.71	-	-	2.6	-	-	-	
Rubidium	mg/L	-	-	-	-	-	-	-	-	-	-	
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	
Silicon	mg/L	-	-	-	-	-	-	-	-	-	-	
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	
Strontium	mg/L	-	-	-	-	-	-	-	-	-	-	
Sodium	mg/L	-	-	-	2.38	-	-	5.19	-	-	-	
Sulfur	mg/L	-	-	-	-	-	-	-	-	-	-	
Tellurium	mg/L	-	-	-	-	-	-	-	-	-	-	
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	
Thorium	mg/L	-	-	-	-	-	-	-	-	-	-	
Tin	mg/L	-	-	-	-	-	-	-	-	-	-	
Titanium	mg/L	-	-	-	-	-	-	-	-	-	-	
Tungsten	mg/L	-	-	-	-	-	-	-	-	-	-	
Uranium	mg/L	-	-	-	-	-	-	-	-	-	-	
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	
Zinc	mg/L	-	-	0.5	-	-	-	-	-	-	-	
Zirconium	mg/L	-	-	-	-	-	-	-	-	-	-	
Dissolved Metals												
Aluminum	mg/L	0.0050 - 0.10	^(e)	-	-	0.0059	0.0044	0.0038	0.0064	0.0038	0.0040	0.0034
Antimony	mg/L	2.0	0.20	-	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Arsenic	mg/L	0.0050	0.050	0.5	^(m)	0.00012	< 0.0001	< 0.0001	0.00016	0.00012	0.00012	0.00012
Barium	mg/L	2.9	10	-	-	0.00867	0.0074	0.00756	0.00682	0.0055	0.0056	0.00482

Table F-3: 2023 to 2025 Groundwater and Seep Analytical Results collected at the Landfill Facility, Mary River Mine

Parameter	Unit	Distance from Landfill Facility Qualifier ^(a)	Station	FIGQ Guideline ^(c) Commercial/Industrial	Yukon Contaminated Sites Regulation (CSR) ^(h)	Water Licence 2AM-MRY1325 Effluent Quality Discharge Limits ⁽ⁱ⁾	Background			Background			
							LF-KP23-08			LF-KP23-09			
							9/07/2023	9/05/2024	8/25/2025	9/06/2023	9/06/2024	9/06/2024	8/25/2025
							BF2300277	BF2400320	BF2500296	BF2300277	BF2400320	BF2400320	BF2500296
COA number	Matrix	QA/QC	Soil Type: Coarse Grain	Protection of Freshwater Aquatic Life (AW-F)	Maximum Concentration of Any Grab Sample	GW			GW				
Sample Date (M/DD/YYYY)	COA number	Matrix	QA/QC	Soil Type: Coarse Grain	Protection of Freshwater Aquatic Life (AW-F)	Maximum Concentration of Any Grab Sample	-	-	-	-	FDA	FD	-
Beryllium	mg/L	0.0053	0.053	-	-	< 0.00002	<0.00002	< 0.00002	< 0.00002	<0.00002	<0.00002	< 0.00002	< 0.00002
Bismuth	mg/L	-	-	-	-	< 0.00005	<0.00005	< 0.00005	< 0.00005	<0.00005	<0.00005	< 0.00005	< 0.00005
Boron	mg/L	1.5	-	-	-	< 0.01	<0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01
Cadmium	mg/L	0.240 ^(f)	0.00010 - 0.00060 ^(g)	-	-	< 0.000005	0.0000066	< 0.000005	0.0000106	0.0000060	0.0000058	< 0.000005	< 0.000005
Cesium	mg/L	-	-	-	-	< 0.00001	<0.00001	< 0.00001	< 0.00001	<0.00001	<0.00001	< 0.00001	< 0.00001
Chromium	mg/L	0.0089	0.010	-	-	< 0.0005	<0.0005	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005
Cobalt	mg/L	-	0.0090	-	-	0.00019	<0.0001	< 0.0001	0.0007	<0.0001	<0.0001	< 0.0001	< 0.0001
Copper	mg/L	0.0020 - 0.0040 ^(j)	0.020 - 0.090 ^(k)	0.3 ^(m)	0.00203	0.0019	0.00164	0.00168	0.0011	0.0011	0.0011	0.00108	0.00108
Iron	mg/L	0.30	-	-	-	< 0.01	<0.01	< 0.01	0.029	<0.01	<0.01	< 0.01	< 0.01
Lead	mg/L	0.0010 - 0.0070 ^(l)	0.040 - 0.16 ^(g)	0.2 ^(m)	< 0.00005	<0.00005	< 0.00005	< 0.00005	0.000099	0.00013	< 0.00005	< 0.00005	< 0.00005
Lithium	mg/L	-	-	-	-	0.0012	<0.001	0.0013	0.0018	0.0012	0.0014	0.0017	0.0017
Manganese	mg/L	-	-	-	-	0.0112	0.00014	0.00012	0.111	0.0020	0.0020	0.00042	0.00042
Mercury	mg/L	0.000026	0.0010	-	-	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
Molybdenum	mg/L	0.073	10	-	-	0.000289	0.000126	0.000123	0.00349	0.00007	0.000075	< 0.00005	< 0.00005
Nickel	mg/L	0.025 - 0.15 ^(g)	0.25 - 1.5 ^(g)	0.5 ^(m)	0.00196	0.00158	0.00106	0.00399	0.00273	0.0027	0.0027	0.00207	0.00207
Phosphorus	mg/L	-	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Rubidium	mg/L	-	-	-	-	0.00191	0.00157	0.00157	0.0006	0.00047	0.00049	0.00049	0.00049
Selenium	mg/L	0.0010	0.010	-	-	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Silicon	mg/L	-	-	-	-	1.77	1.8	1.78	2.27	2.34	2.33	1.97	1.97
Silver	mg/L	0.00025	0.0005 - 0.015 ^(g)	-	-	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Strontium	mg/L	-	-	-	-	0.0152	0.0146	0.0136	0.019	0.021	0.021	0.0172	0.0172
Sulfur	mg/L	-	-	-	-	0.75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tellurium	mg/L	-	-	-	-	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Thallium	mg/L	0.00080	0.0030	-	-	0.000011	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Thorium	mg/L	-	-	-	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Tin	mg/L	-	-	-	-	< 0.0001	< 0.0001	< 0.0001	0.00012	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Titanium	mg/L	0.10	1.0	-	-	< 0.0003	< 0.0003	< 0.0003	0.00033	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Tungsten	mg/L	-	-	-	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Uranium	mg/L	0.015	3.0	-	-	0.000616	0.000429	0.000361	0.000443	0.000342	0.00035	0.000248	0.000248
Vanadium	mg/L	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Zinc	mg/L	0.030	0.075 - 2.4 ^(g)	0.5 ^(m)	0.001	< 0.001	0.0011	0.0022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Zirconium	mg/L	-	-	-	-	0.00055	0.00052	0.00045	0.0004	0.00033	0.00034	0.00031	0.00031

COA = certificate of analysis, as N: as Nitrogen, BIM: Baffinland Iron Mines, BTEX: Benzene Toluene Ethylbenzene Xylenes, CaCO₃: Calcium Carbonate, DQO: Data Quality Objective, FDA: Field Duplicate Available, FD: Field Duplicate, FIGQ: Federal Interim Groundwater Guideline, CSR: Contaminated Sites Regulation, mg/L: milligram per litre, GW: Groundwater, LF: Landfill Facility, na: not available, SP: Seep, T/D/N = Total/Dissolved/Normal, ug/L: microgram per litre, uS/cm: microsiemens per centimetre, °C: degrees Celsius, < = less than

- (a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.
- (b) Hardness not provided by the laboratory. Hardness was calculated based on Magnesium (Mg) and Calcium (Ca) concentrations for each sample.
- (c) Federal Interim Groundwater Quality Guideline from Federal Contaminated Sites Action Plan (FCSAP), 2016 (Rev 4) - Guidance Document on Federal Interim Groundwater Quality Guideline for Federal Contaminated Sites.
- (d) Ammonia guideline is pH and temperature dependent. The guideline is calculated based on the individual field pH and temperature measurements for each sample.
- (e) Guideline is pH dependent. The guideline is calculated based on the individual pH for each sample.
- (f) Cadmium guideline is hardness dependent of the receiving environment and was calculated with the following equation (FIGQ, 2016): $10^{(0.83 \times (\log(\text{hardness}) - 2.46))}$. Hardness used for the calculation is the most conservative median concentration (ie, 51.75 mg/L) between Northwest and Southeast Sheardown Lake available in Table 2.4 of Aquatic Effects Monitoring Plan BIM-5200-PLA-0023 REV 2 (BIM, 2024).
- (g) Guideline is hardness dependent. The guideline is calculated based on the individual hardness value for each sample.
- (h) Yukon Contaminated Sites Regulation (CSR) (Environment Yukon 2002, in accordance with Yukon CSR Protocol 6 (Environment Yukon 2012). Yukon CSR does not apply to Nunavut, and is only used here for comparison purposes.
- (i) Guideline is chloride dependent. The guideline is calculated based on the individual chloride concentration in each sample.
- (j) Guideline from Nunavut Water Board - Water Licence 2AM-MRY1325. Provided for comparison purposes only. Water licence expired on 10-Jun-2025.
- (k) Total Suspended Solids guideline (15 mg/L) does not apply to groundwater and was excluded from this table.
- (l) Guideline from Nunavut Water Board - Water Licence 2AM-MRY2540. Provided for comparison purposes only. New water licence was issued on 28 April 2025. These new limits act as guidelines for the site to be used internally by Baffinland Iron Mines as adaptive management considerations.
- (m) Guideline for total metals, for comparison purposes only.

Value	Value exceeding DQO for either pH or Conductivity
Value	DQO - 1 (pH units) for pH between laboratory and field measurements
Value	DQO - 20% for conductivity between laboratory and field measurements
Value	Result exceeds the FIGQ Commercial/Industrial Land Use - Tier 2 guideline or is outside the recommended
Value	Result exceeds Yukon CSR guideline.
Value	Result exceeds Water Licence 2AM-MRY1325, applicable only on 2023 and 2024 results.
Value	Result exceeds Water Licence 2AM-MRY2540, applicable only on 2025 results.

Table F-4: 2023 to 2025 Groundwater Analytical Results collected at the Hazardous Waste Berm Facility, Mary River Mine

Parameter	Unit	Distance from HWB Facilities Qualifier ^(a) Station Sample Date (M/DD/YYYY)	FIGQ Guideline ^(c) Commercial/Industrial	Yukon Contaminated Sites Regulation (CSR) ^(h) Protection of Freshwater Aquatic Life (AW-F)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ^(d)	Water Licence 2AM- MRY2540 Effluent Quality Discharge Limits ^(d)	Source				Source				Source				Source		
							HWB-KP23-01		HWB-KP23-02		HWB-KP22-03		MS-HWB-GW5		MS-HWB-GW4						
							9/16/2023	9/08/2024	8/30/2025	9/16/2023	9/08/2024	8/30/2025	9/16/2023	9/08/2024	8/30/2025	9/19/2023	9/09/2024	8/30/2025	9/15/2023	9/09/2024	
							BF2300297	BF2400327	BF2500308	BF2300297	BF2400327	BF2500308	BF2300297	BF2400323	BF2500308	BF2300306	BF2400327	BF2500308	BF2300297	BF2400327	
							GW		GW		GW		GW		GW						
							FDA		FD												
Polycyclic Aromatic Hydrocarbons (PAHs)																					
Acenaphthene	µg/L		5.8	-	-	-	<0.015	<0.01	<0.053	0.137	<0.122	<0.089	<0.084	<1.36	<0.852	<0.281	<0.029	<0.01	<0.059	<0.01	<0.07
Acenaphthylene	µg/L		46	-	-	-	<0.010	<0.01	<0.034	<0.037	<0.025	<0.024	<0.147	<0.082	<0.084	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Acridine	µg/L		0.05	0.5	-	-	<0.010	<0.011	<0.033	<0.01	<0.013	<0.013	<0.145	<0.087	<0.054	<0.011	<0.013	<0.035	<0.01	<0.01	<0.012
Anthracene	µg/L		0.012	1	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.058	<0.042	<0.042	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
1+2-Methylnaphthalenes	µg/L		180	-	-	-	0.539	1.08	0.324	44.5	17.1	14.1	2.68	2.23	1.3	0.12	0.38	0.088	0.02	<0.054	<0.01
1-Methylnaphthalene	µg/L		-	-	-	-	0.234	0.549	0.178	18.3	9.44	7.44	6.35	1.7	1.59	0.883	0.061	0.21	0.051	0.02	<0.045
2-Methylnaphthalene	µg/L		-	-	-	-	0.305	0.535	0.146	26.2	11.9	9.63	7.76	0.983	0.641	0.422	0.059	0.17	0.037	<0.011	<0.03
B[a]P Total Potency Equivalent	µg/L		-	-	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)anthracene	µg/L		0.018	1	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.042	<0.042	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	µg/L		0.015	0.1	-	-	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005
Benzo(b)fluoranthene	µg/L		0.48	-	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01
Benzo(k)fluoranthene	µg/L		-	-	-	-	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Benzo(g,h)perylene	µg/L		0.17	-	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(i)fluoranthene	µg/L		0.48	-	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01
Chrysene	µg/L		1.4	-	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	µg/L		0.26	-	-	-	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005
Fluoranthene	µg/L		0.04	2	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.042	<0.042	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	µg/L		3	120	-	-	<0.010	<0.01	<0.01	0.209	0.132	0.122	<0.06	<0.042	<0.042	<0.010	<0.01	<0.011	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L		0.21	-	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Naphthalene	µg/L		1.1	10	-	-	0.312	<0.349	<0.114	11.8	14.8	13.8	1.8	<0.321	<0.316	<0.191	0.069	<0.128	<0.011	0.046	0.232
Perylene	µg/L		-	-	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	µg/L		0.4	3	-	-	<0.010	<0.01	<0.01	0.023	0.024	0.025	0.029	<0.042	<0.042	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	µg/L		0.025	0.2	-	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	0.108	<0.042	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Quinoline	µg/L		3.4	34	-	-	<0.104	<0.279	<0.104	<1.8	<1.36	<0.838	<0.767	<4.91	<3.58	<2.65	<0.082	<0.262	<0.435	<0.527	<0.649
Glycols																					
Diethylene glycol	mg/L		-	-	-	-	<5.0	-	-	<5	-	-	-	<5	-	-	<5.0	-	-	<5	-
Ethylene glycol	mg/L		190	1920	-	-	<5.0	-	-	<5	-	-	-	<5	-	-	<5.0	-	-	<5	-
Propanediol, 1,3-	mg/L		-	-	-	-	<5.0	-	-	<5	-	-	-	<5	-	-	<5.0	-	-	<5	-
Propylene glycol, 1,2-	mg/L		500	5000	-	-	<5.0	-	-	<5	-	-	-	<5	-	-	<5.0	-	-	<5	-
Tetraethylene glycol	mg/L		-	-	-	-	<5.0	-	-	<5	-	-	-	<5	-	-	<5.0	-	-	<5	-
Triethylene glycol	mg/L		-	-	-	-	<5.0	-	-	<5	-	-	-	<5	-	-	<5.0	-	-	<5	-
Glycols, total (EG+DEG+PG)	mg/L		-	-	-	-	<10	-	-	<10	-	-	-	<10	-	-	<10	-	-	<10	-
Total Metals																					
Calcium	mg/L		-	-	-	-	80.5	-	-	82	-	-	-	61.2	-	-	70	-	-	52	-
Magnesium	mg/L		-	-	-	-	59.2	-	-	80.1	-	-	-	89.8	-	-	69.6	-	-	41.5	-
Potassium	mg/L		-	-	-	-	4.09	-	-	5.68	-	-	-	6.24	-	-	3.38	-	-	1.59	-
Sodium	mg/L		-	-	-	-	4.82	-	-	5.38	-	-	-	24.6	-	-	4.48	-	-	3.72	-
Dissolved Metals																					
Aluminum	mg/L		0.0050 - 0.10 ^(a)	-	-	-	<0.0100	0.0063	0.0049	0.0172	0.0152	0.0098	0.0114	0.0221	0.0108	<0.01	0.0028	0.0026	0.0029	0.0108	0.004
Antimony	mg/L		2.0	0.20	-	-	<0.00100	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.001	<0.00010	<0.0001	<0.0001	<0.001	<0.0001
Arsenic	mg/L		0.0050	0.050	0.5 ^(a)	0.6 ^(a)	<0.00100	0.0003	0.00028	<0.001	0.00082	0.00051	0.0006	0.002	0.0024	0.00029	0.00028	0.00028	<0.001	0.00029	<0.0005
Barium	mg/L		2.9	10	-	-	0.0948	0.0529	0.0545	0.104	0.075	0.088	0.0749	0.124	0.0802	0.05	0.0949	0.0527	0.0395	0.0384	0.0394
Beryllium	mg/L		0.0053	0.053	-	-	<0.000200	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.000020	<0.00002	<0.00002	<0.00002	<0.00002
Bismuth	mg/L		-	-	-	-	<0.000500	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000050	<0.00005	<0.00005	<0.00005	<0.00005
Boron	mg/L		1.5	-	-	-	<0.100	0.029	0.03	<0.1	0.016	0.025	0.02	<0.1	<0.1	<0.1	0.018	0.026	0.024	<0.1	0.011
Cadmium	mg/L		0.270 ^(f)	0.00010 - 0.00060 ^(g)	-	-	<0.0000500	0.0000119	<0.00005	0.0000163	0.0000163	0.0000119	<0.00005	<0.00005	0.0000271	0.0000163	0.0000134	<0.00005	0.0000165	0.0000165	0.0000165
Cesium	mg/L		-	-	-	-	<0.000100	0.000015	0.000014	<0.0001	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	0.000019	0.000018	0.000014	<0.0001	<0.0001
Chromium	mg/L		0.0089	0.010	-	-	<0.0050	0.00083	0.00084	<0.005	0.0022	0.0015	<0.005	<0.005	<0.005	0.00136	0.0009	0.00091	<0.005	0.00068	
Cobalt	mg/L		-	0.0090	-	-	0.00167	0.00053	0.00086	0.00922	0.00527	0.00472	0.00442	0.00859	0.00568	0.00246	0.0103	0.00075	0.00069	<0.001	0.00023
Copper	mg/L		0.0020 - 0.0040 ^(a)	0.020 - 0.090 ^(a)	0.3 ^(a)	0.6 ^(a)	0.00358	0.0043	0.0041	0.00389	0.00332	0.00222	0.00213	<0.002	<0.002	0.00463	0.00309	0.00351	0.00426	0.004	
Iron	mg/L		30	0.40	-	-	0.173	0.040	0.025	1.8	1.9	1.8	1.77	<0.1	0.102	<0.010	<0.01	<0.01	<0.01	<0.01	
Lead	mg/L		0.0010 - 0.0070 ^(a)	0.040 - 0.16 ^(a)	0.2 ^(a)	0.2 ^(a)	<0.000500	0.00025	0.000078	<0.0005	0										

Table F-4: 2023 to 2025 Groundwater Analytical Results collected at the Hazardous Waste Berm Facility, Mary River Mine

Parameter	Unit	Distance from HWB Facilities Qualifier ^(a)	Station Sample Date (M/DD/YYYY)	FIGQ Guideline ^(c)	Yukon Contaminated Sites Regulation (CSR) ^(h)	Water Licence ZAM-MRY1525 Effluent Quality Discharge Limits ⁽ⁱ⁾	Proximal		Proximal			Proximal		Downgradient		Background		Background		Background		Background							
							HWB-KP22-04		HWB-KP22-05			HWB-KP23-03		MS-HWB-25-01		HWB-KP22-01		HWB-KP22-06		MS-HWB-25-03		MS-HWB-GW-REF3		MS-HWB-GW-REF1					
							9/16/2023	9/08/2024	8/30/2025	9/16/2023	9/09/2024	8/30/2025	9/16/2023	9/08/2024	8/30/2025	9/02/2025	9/08/2024	8/30/2025	9/02/2025	9/08/2024	8/30/2025	9/02/2025	9/08/2024	8/30/2025	9/02/2025	9/08/2024	8/30/2025		
							BF2300297	BF2400323	BF2500308	BF2300297	BF2400327	BF2500308	BF2300297	BF2400327	BF2500308	BF2500317	BF2300297	BF2400323	BF2500308	BF2500317	BF2300297	BF2400323	BF2500308	BF2500317	BF2300297	BF2400323	BF2500308	BF2400330	BF2500308
Polycyclic Aromatic Hydrocarbons (PAHs)																													
Acenaphthene	µg/L	-	5.8	-	-	-	< 0.042	< 0.078	< 0.01	0.015	0.011	0.013	< 0.02	0.244	< 0.083	< 0.112	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.056	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthylene	µg/L	-	46	-	-	-	< 0.017	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.084	< 0.019	< 0.035	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Acridine	µg/L	-	0.05	0.5	-	-	< 0.036	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.012	< 0.012	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Anthracene	µg/L	-	0.012	1	-	-	< 0.015	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
1+2-Methylnaphthalenes	µg/L	-	180	-	-	-	0.954	0.448	0.411	6.34	5	6.34	5.9	65.3	16.3	40.5	0.155	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	
1-Methylnaphthalene	µg/L	-	-	-	-	-	0.616	0.328	0.231	3.07	2.46	3.14	2.92	25.9	5.28	15.5	0.155	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	
2-Methylnaphthalene	µg/L	-	-	-	-	-	0.338	0.12	0.18	3.27	2.54	3.2	2.98	39.4	11	25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
B[a]P Total Potency Equivalent	µg/L	-	0.48	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(a)anthracene	µg/L	-	0.018	1	-	-	< 0.01	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(a)pyrene	µg/L	-	0.015	0.1	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	
Benzo(b)fluoranthene	µg/L	-	0.48	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/L	-	-	-	-	-	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
Benzo(g,h)perylene	µg/L	-	0.17	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/L	-	0.48	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/L	-	1.4	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/L	-	0.26	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Fluoranthene	µg/L	-	0.04	2	-	-	< 0.01	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/L	-	3	120	-	-	< 0.03	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.343	0.101	0.169	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/L	-	0.21	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	µg/L	-	1.1	10	-	-	< 0.148	< 0.072	< 0.412	5.54	3.55	4.72	2.69	57.8	20.1	36.8	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perylene	µg/L	-	-	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/L	-	0.4	3	-	-	< 0.01	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.024	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/L	-	0.025	0.2	-	-	< 0.01	< 0.042	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Quinoline	µg/L	-	3.4	34	-	-	< 0.224	< 0.448	< 0.081	< 1.03	< 1.15	< 1.05	< 1.09	< 3.49	< 1.85	< 2.11	< 0.072	< 0.052	< 0.01	< 0.019	< 0.01	< 0.01	< 0.01	< 0.198	< 0.036	< 0.01	< 0.01	< 0.01	< 0.01
Glycols																													
Diethylene glycol	mg/L	-	-	-	-	-	< 5	-	-	< 5	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Ethylene glycol	mg/L	-	190	1920	-	-	< 5	-	-	< 5	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Propanediol, 1,3-	mg/L	-	-	-	-	-	< 5	-	-	< 5	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Propylene glycol, 1,2-	mg/L	-	500	5000	-	-	< 5	-	-	< 5	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Tetraethylene glycol	mg/L	-	-	-	-	-	< 5	-	-	< 5	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Triethylene glycol	mg/L	-	-	-	-	-	< 5	-	-	< 5	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Glycols, total (EG+DEG+PG)	mg/L	-	-	-	-	-	< 10	-	-	< 10	-	-	-	< 10	-	-	-	-	-	< 10	-	-	-	-	-	-	-	-	-
Total Metals																													
Calcium	mg/L	-	-	-	-	-	39.4	-	-	60.1	-	-	-	75.4	-	-	-	-	-	78.1	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	60.7	-	-	52	-	-	-	33	-	-	-	-	-	78.6	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	3.69	-	-	3.06	-	-	-	8.08	-	-	-	-	-	6.67	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	3.88	-	-	7.73	-	-	-	11.1	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-
Disolved Metals																													
Aluminum	mg/L	-	0.0050 - 0.10	(a)	-	-	< 0.01	0.0038	0.0032	0.0056	0.0118	< 0.01	< 0.01	0.007	0.0163	0.014	0.0024	0.0209	0.0334										

Distance from Landfill Facility Qualifier ^(a) Station	CCME Water Quality Guideline (WQG) for the Protection of Freshwater Aquatic Life (AW- F) ^(c)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ^(b)	Water Licence 2AM- MRY2540 Effluent Quality Discharge Limits ^(m)	Proximal LF-US-POND-01			Downgradient MS-MRY-13B			Downgradient MS-MRY-13C			
				8/17/2024	9/09/2024	8/29/2025	6/09/2024	7/01/2024	8/04/2024	8/29/2025	8/17/2024	9/07/2024	8/29/2025
Sample Date (M/DD/YYYY)				BF2400266	BF2400326	BF2500307	BF2400096	BF2400155	BF2400225	BF2500307	BF2400266	BF2400326	BF2500307
COA number													
Matrix	Long-term exposure	Maximum Concentration of Grab Sample	Maximum Concentration of Grab Sample	SW			SW			SW			
QA/QC				-	-	-	-	-	-	-	-	-	-
Parameter	Unit												
Styrene	ug/L	72	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5

Distance from Landfill Facility Qualifier ^(a)	Station Sample Date (M/DD/YYYY)	CCME Water Quality Guideline (WQG) for the Protection of Freshwater Aquatic Life (AW- F) ^(c)	Water Licence 2AM- MRY1325 Effluent Quality Discharge Limits ^(k)	Water Licence 2AM- MRY2540 Effluent Quality Discharge Limits ^(m)	Proximal LF-US-POND-01			Downgradient MS-MRY-13B			Downgradient MS-MRY-13C			
					8/17/2024	9/09/2024	8/29/2025	6/09/2024	7/01/2024	8/04/2024	8/29/2025	8/17/2024	9/07/2024	8/29/2025
					COA number	BF2400266	BF2400326	BF2500307	BF2400096	BF2400155	BF2400225	BF2500307	BF2400266	BF2400326
Matrix	QA/QC	Long-term exposure	Maximum Concentration of Grab Sample	Maximum Concentration of Grab Sample	SW			SW			SW			
Parameter	Unit				-	-	-	-	-	-	-	-	-	-
Volatile Organics														
1,2-Dichlorobenzene	µg/L	0.7	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,2-Dichloroethane	µg/L	100	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,3-Dichlorobenzene	µg/L	150	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Chloroform	µg/L	1.8	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Carbon tetrachloride	µg/L	13.3	-	-	-	-	< 0.2	-	-	-	< 0.2	-	-	< 0.2
1,1,1,2-Tetrachloroethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,1,1-Trichloroethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,1,2,2-Tetrachloroethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,1,2-Trichloroethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,1-Dichloroethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,1-Dichloroethylene	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,2-Dibromoethane	µg/L	-	-	-	-	-	< 0.2	-	-	-	< 0.2	-	-	< 0.2
1,2-Dichloropropane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,3-Dichloropropane (cis & trans)	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
1,4-Dichlorobenzene	µg/L	26	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Indeno(1,2,3-cd)pyrene	µg/L	-	-	-	-	-	< 0.01	-	-	-	< 0.01	-	-	< 0.01
Methyl Ethyl Ketone	µg/L	-	-	-	-	-	< 20	-	-	-	< 20	-	-	< 20
Methyl Isobutyl Ketone	µg/L	-	-	-	-	-	< 20	-	-	-	< 20	-	-	< 20
Methyl t-butyl ether (MTBE)	µg/L	10000	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Acetone	µg/L	-	-	-	-	-	< 20	-	-	-	< 20	-	-	< 20
Bromomethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
cis-1,2-Dichloroethylene	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
cis-1,3-Dichloropropene	µg/L	-	-	-	-	-	< 0.3	-	-	-	< 0.3	-	-	< 0.3
Dibenz(a,h)anthracene	µg/L	-	-	-	-	-	< 0.005	-	-	-	< 0.005	-	-	< 0.005
Dibromochloromethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Dichlorodifluoromethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Dichloroethylene, cis+trans-1,2-	µg/L	-	-	-	-	-	< 0.71	-	-	-	< 0.71	-	-	< 0.71
Dichloromethane	µg/L	98.1	-	-	-	-	< 1	-	-	-	< 1	-	-	< 1
Chloromethane	µg/L	-	-	-	-	-	< 2	-	-	-	< 2	-	-	< 2
Tetrachloroethylene (PCE)	µg/L	110	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	0.66
trans-1,2-Dichloroethylene	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
trans-1,3-Dichloropropene	µg/L	-	-	-	-	-	< 0.3	-	-	-	< 0.3	-	-	< 0.3
Trichloroethylene (TCE)	µg/L	21	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Trichlorofluoromethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Trihalomethanes	µg/L	-	-	-	-	-	< 1	-	-	-	< 1	-	-	< 1
Chloroethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
hexanone, 2-	µg/L	-	-	-	-	-	< 20	-	-	-	< 20	-	-	< 20
n-Hexane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Bromodichloromethane	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5
Vinyl chloride	µg/L	-	-	-	-	-	< 0.2	-	-	-	< 0.2	-	-	< 0.2
Bromoform	µg/L	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	-	< 0.5

COA: certificate of analysis, as N: as Nitrogen, BTEX: Benzene Toluene Ethylbenzene Xylenes, CaCO₃: Calcium Carbonate, CCME: Canadian Council of Ministers of the Environment, DOC: Dissolved Organic Carbon, DQO: Data Quality Objective, mg/L: milligram per litre, SW: Surface Water, T/D/N = Total/Dissolved/Normal, µg/L: microgram per litre, µS/cm: microsiemens per centimetre, °C: degrees Celsius, < = less than

- (a) Distance from Landfill Facility Qualifiers are defined as: Source = Station is located within active cells (Cells 1, 2, 3) in the landfill, Proximal= Station is within 20 metres from landfill limits, Downgradient = Station is located more than 20 m downgradient from the landfill's limits towards Sheardown Lake, Background = Station is located in the inactive cells (Cells 4, 5) of the landfill or upgradient of the landfill.
- (b) Hardness not provided by the laboratory at all locations. When not provided, hardness was calculated based on Magnesium (Mg) and Calcium (Ca) concentrations for each sample.
- (c) Canadian Council of Ministers of the Environment, Water Quality Guideline for the Protection of Aquatic Life Freshwater - Long-Term guideline.
- (d) Ammonia guideline is pH and temperature dependent. The guideline is calculated based on the individual field pH and temperature measurements for each sample.
- (e) Guideline is pH dependent. The guideline is calculated based on the individual pH for each sample.
- (f) Cadmium guideline is hardness dependent. The guideline is calculated based on the individual hardness value for each sample.
- (g) The guideline is for chromium VI.
- (h) Guideline is hardness dependent. The guideline is calculated based on the individual hardness value for each sample.
- (i) The chronic dissolved manganese guideline is pH and hardness dependent. The guideline is calculated based on the individual pH and hardness measurements for each sample.
- (j) The chronic dissolved zinc guideline is pH, hardness and DOC dependent. Guidelines calculated with pH, hardness and DOC values falling outside the defined range (i.e., pH 6.5 to 8.13, hardness 23.4 to 399 mg/L, and DOC 0.3 to 22.9 mg/L) should be used with caution, as the Water Quality Guideline does not necessarily accurately reflect toxic effects at the low and high pH, hardness and DOC extremes. Hardness is above the defined range for samples MS-MRY-13B on 7/1/2024 and MS-MRY-13C on 8/17/2025 and 9/7/2024. The guideline is calculated based on the individual pH, hardness and DOC measurements for each sample.
- (k) Guideline from Nunavut Water Board - Water Licence 2AM-MRY1325. Water licence expired on 10-Jun-2025.
- (l) Detection limit is above guideline. This may be caused by sample dilution done by the laboratory to run the analysis.
- (m) Guideline from Nunavut Water Board - Water Licence 2AM-MRY2540, for comparison purposes only. New water licence issued on 28 April 2025. These new limits act as guidelines for the site to be used internally by Baffinland Iron Mines as adaptive management considerations.
- (n) Guideline for total metals, for comparison purposes only.

Value	Value exceeding DQO for either pH or Conductivity
Value	DQO < 1 (pH units) for pH between laboratory and field measurements
Value	DQO < 20% for conductivity between laboratory and field measurements
Value	Result exceeds the CCME Water Quality Guideline for the Protection of Aquatic Life - Freshwater, Long-term or outside the recommended pH
Value	Result exceeds Water Licence 2AM-MRY1325, applicable only on 2023 and 2024 results.
Value	Result exceeds Water Licence 2AM-MRY2540, applicable only on 2025 results.

Table F-6: 2025 Groundwater program QA/QC Results at the Landfill Facility, Mary River Mine

Parameter	Unit	Matrix QA/QC	Detection Limit	5 th Detection Limit	Parent and Duplicate Sample			Travel Blank
					Station Sample Date (M/DD/YYYY)	LF-KP22-01		LF-KP22-03
						8/28/2025	8/28/2025	8/27/2025
						BF2500308	BF2500308	BF2500299
			GW	RPD (%) ^(a)				
		FDA	FD			TB		
Routine Parameters								
Dissolved Oxygen, Field	mg/L	-	-	0.11	-	-	-	
Dissolved Oxygen, Percent, Field	%	-	-	0.8	-	-	-	
pH, Field	pH unit	-	-	7.06	-	-	-	
pH, Lab	pH unit	0.1	0.5	7.06	7.01	1	6.45	
Specific Conductivity, Field	µS/cm	-	-	2440	-	-	-	
Conductivity, Lab	µS/cm	1	5	2430	2410.0	1	1.2	
Temperature, Field	°C	-	-	1.9	-	-	-	
Total Alkalinity	mg/L as CaCO ₃	2	10	325	327	1	< 2	
Total Suspended Solids	mg/L	1	5	< 1.2	< 1.2	n/a	< 1	
Total Dissolved Solids	mg/L	10	50	2020	2100	4	< 20	
Turbidity, Lab	NTU	0.1	0.5	1.4	1.47	5	< 0.1	
Turbidity, Field	NTU	-	-	1.65	-	-	-	
Hardness, as CaCO ₃ (calculated) ^(b)	mg/L	-	-	1400	1415	-	-	
Major Ions								
Calcium	mg/L	0.05	0.25	485	488	1	< 0.05	
Chloride	mg/L	0.5	2.5	88.4	89.6	1	< 0.5	
Bromide	mg/L	0.1	0.5	< 0.5	< 0.5	n/a	< 0.1	
Fluoride	mg/L	0.02	0.1	< 0.1	< 0.1	n/a	< 0.02	
Magnesium	mg/L	0.005	0.025	45.8	47.7	4	< 0.005	
Potassium	mg/L	0.05	0.25	20	20.5	2	< 0.05	
Sodium	mg/L	0.05	0.25	45.5	46.6	2	< 0.05	
Sulfate	mg/L	0.3	1.5	1030	1040	1	< 0.3	
Nutrients								
Nitrate	mg/L as N	0.02	0.1	< 0.1	< 0.1	n/a	< 0.02	
Nitrite	mg/L as N	0.01	0.05	< 0.05	< 0.05	n/a	< 0.01	
Total Ammonia	mg/L as N	0.005	0.025	2.2	2.24	2	< 0.005	
Phosphorus, Nutrient	mg/L	0.002	-	0.0746	0.0754	1	< 0.002	
Phosphorus, total	mg/L	0.002	-	0.0817	0.0804	2	< 0.002	
Total Kjeldahl Nitrogen	mg/L	0.05	0.25	2.99	3.16	6	< 0.05	
Organic Carbon								
Dissolved Organic Carbon	mg/L	0.5	2.5	10.7	10.8	1	0.82	
Petroleum Hydrocarbons (PHCs) and BTEX								
Benzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Toluene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Ethylbenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
o-Xylene	µg/L	0.3	1.5	< 0.3	< 0.3	n/a	< 0.3	
m+p-Xylenes	µg/L	0.4	2	< 0.4	< 0.4	n/a	< 0.4	
Total Xylenes	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
BTEX, Total	µg/L	1	5	< 1	< 1	n/a	< 1	
Monochlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
F1 (C6-C10)	µg/L	25	125	< 25	< 25	n/a	< 25	
F1 (C6-C10)-BTEX	µg/L	25	125	< 25	< 25	n/a	< 25	
F2 (C10-C16)	µg/L	100	500	< 100	< 100	n/a	< 100	
F3 (C16-C34)	µg/L	250	1250	< 250	< 250	n/a	< 250	
F4 (C34-C50)	µg/L	250	1250	< 250	< 250	n/a	< 250	
Total Petroleum Hydrocarbons	µg/L	370	1850	< 370	< 370	n/a	< 370	
Volatile Organic Compounds (VOCs)								
1,1,1,2-Tetrachloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,1,1-Trichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,1,2,2-Tetrachloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,1,2-Trichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,1-Dichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,1-Dichloroethylene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,2-Dibromoethane	µg/L	0.2	1	< 0.2	< 0.2	n/a	< 0.2	
1,2-Dichlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,2-Dichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,2-Dichloropropane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,3-Dichlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,3-Dichloropropene (cis & trans)	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
1,4-Dichlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Methyl Ethyl Ketone	µg/L	20	100	< 20	< 20	n/a	< 20	
Methyl Isobutyl Ketone	µg/L	20	100	< 20	< 20	n/a	< 20	
Methyl t-butyl ether (MTBE)	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Acetone	µg/L	20	100	< 20	< 20	n/a	< 20	
Bromomethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
cis-1,2-Dichloroethylene	µg/L	0.5	2.5	1.04	1.03	n/a	< 0.5	
trans-1,2-Dichloroethylene	µg/L	0.5	2.5	0.66	0.65	n/a	< 0.5	
Dichloroethylene, cis+trans-1,2-	µg/L	0.71	3.55	1.7	1.68	n/a	< 0.71	
cis-1,3-Dichloropropene	µg/L	0.3	1.5	< 0.3	< 0.3	n/a	< 0.3	
trans-1,3-Dichloropropene	µg/L	0.3	1.5	< 0.3	< 0.3	n/a	< 0.3	
Dibromochloromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Dichlorodifluoromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Dichloromethane	µg/L	1	5	< 1	< 1	n/a	< 1	
Chloromethane	µg/L	2	10	< 2	< 2	n/a	< 2	
Tetrachloroethylene (PCE)	µg/L	0.5	2.5	14.7	14.4	2	< 0.5	
Trichloroethylene (TCE)	µg/L	0.5	2.5	7.53	7.33	3	< 0.5	
Trichlorofluoromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Trihalomethanes, Total	µg/L	1	5	< 1.0	< 1.0	n/a	< 1	
Chloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
hexanone, 2-	µg/L	20	100	< 20	< 20	n/a	< 20	
n-Hexane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Bromodichloromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Vinyl chloride	µg/L	0.2	1	< 0.2	< 0.2	n/a	< 0.2	
Bromoform	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Chloroform	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Acenaphthylene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Acridine	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Anthracene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
1+2-Methylnaphthalenes	µg/L	0.015	0.075	0.051	0.054	n/a	< 0.015	
1-Methylnaphthalene	µg/L	0.01	0.05	0.04	0.042	n/a	< 0.01	
2-Methylnaphthalene	µg/L	0.01	0.05	0.011	0.012	n/a	< 0.01	
B(a)P Total Potency Equivalent	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Benzo(a)anthracene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Benzo(a)pyrene	µg/L	0.005	0.025	< 0.005	< 0.005	n/a	< 0.005	
Benzo(b)fluoranthene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Benzo(b)+k)fluoranthene	µg/L	0.015	0.075	< 0.015	< 0.015	n/a	< 0.015	
Benzo(g,h,i)perylene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Benzo(k)fluoranthene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Carbon disulfide	µg/L	1	5	< 1	< 1	n/a	< 1	
Carbon tetrachloride	µg/L	0.2	1	< 0.2	< 0.2	n/a	< 0.2	
Chrysene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Dibenz(a,h)anthracene	µg/L	0.005	0.025	< 0.005	< 0.005	n/a	< 0.005	
Fluoranthene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Fluorene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Indeno(1,2,3-cd)pyrene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Naphthalene	µg/L	0.01	0.05	< 0.078	< 0.085	n/a	< 0.01	
Perylene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Phenanthrene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Pyrene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a	< 0.01	
Quinoline	µg/L	0.01	0.05	< 0.094	< 0.094	n/a	< 0.01	
Styrene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a	< 0.5	
Dissolved Metals								
Aluminum	mg/L	0.001	0.005	< 0.01	< 0.01	n/a	< 0.001	
Antimony	mg/L	0.0001	0.0005	< 0.001	< 0.001	n/a	< 0.0001	
Arsenic	mg/L	0.0001	0.0005	0.0107	0.0115	7	< 0.0001	
Barium	mg/L	0.0001	0.0005	0.0518	0.052	0	< 0.0001	
Beryllium	mg/L	0.00002	0.0001	< 0.0002	< 0.0002	n/a	< 0.00002	
Bismuth	mg/L	0.00005	0.00025	< 0.0005	< 0.0005	n/a	< 0.00005	
Boron	mg/L	0.01	0.05	1.8	1.8	0	< 0.01	
Cadmium	mg/L	0.00005	0.00025	0.00062	0.00081	27	0.000054	
Cesium	mg/L	0.00001	0.00005	< 0.0001	< 0.0001	n/a	< 0.00001	
Chromium	mg/L	0.0005	0.0025	< 0.005	< 0.005	n/a	< 0.0005	
Cobalt	mg/L	0.0001	0.0005	0.00682	0.00668	2	< 0.0001	
Copper	mg/L	0.0002	0.001	< 0.002	< 0.002	n/a	< 0.0002	
Iron	mg/L	0.01	0.05	0.242	0.233	4	< 0.01	
Lead	mg/L	0.00005	0.00025	< 0.0005	< 0.0005	n/a	< 0.00005	
Lithium	mg/L	0.001	0.005	0.143	0.135	6	< 0.001	
Manganese	mg/L	0.0001	0.0005	1.76	1.76	0	< 0.0001	
Mercury	mg/L	0.00005	0.00025	< 0.00005	< 0.00005	n/a	< 0.00005	
Molybdenum	mg/L	0.00005	0.00025	0.00639	0.00639	0	< 0.00005	
Nickel	mg/L	0.0005	0.0025	0.0738	0.0742	1	< 0.0005	
Phosphorus	mg/L	0.05	0.25	< 0.5	< 0.5	n/a	< 0.05	
Rubidium	mg/L	0.0002	0.001	0.00972	0.00915	6	< 0.0002	
Selenium	mg/L	0.00005	0.00025	< 0.0005	< 0.0005	n/a	< 0.00005	
Silicon	mg/L	0.05	0.25	5.63	5.57	1	< 0.05	
Silver	mg/L	0.00001	0.00005	< 0.0001	< 0.0001	n/a	< 0.00001	
Strontium	mg/L							

Table F-7: 2025 Groundwater program QA/QC Results at the Hazardous Waste Berm Facility, Mary River Mine

Parameter	Unit	Detection Limit	5 th Detection Limit	Parent and Duplicate Sample		
				HWB-KP23-02		RPD (%) ^(a)
				8/30/2025	8/30/2025	
				BF2500308	BF2500308	
COA number	Matrix QA/QC	GW		RPD (%) ^(a)		
Station Sample Date (M/DD/YYYY)	Sample Type	FDA	FD			
Routine Parameters						
Dissolved Oxygen, Field	mg/L	-	-	4.95	-	-
Dissolved Oxygen, Percent, Field	%	-	-	35.2	-	-
pH, Field	pH unit	-	-	7.14	-	-
pH, Lab	pH unit	0.1	0.5	7.08	7.02	1
Specific Conductivity, Field	µS/cm	-	-	751	-	-
Conductivity, Lab	µS/cm	1	5	703	725	3
Temperature, Field	°C	-	-	1.3	-	-
Total Alkalinity	mg/L as CaCO ₃	2	10	193	198	3
Total Suspended Solids	mg/L	1	5	1.3	1.1	n/a
Total Dissolved Solids	mg/L	10	50	450	435	3
Turbidity, Lab	NTU	0.1	0.5	3.98	2.84	33
Turbidity, Field	NTU	-	-	1.04	-	-
Hardness, as CaCO ₃ (calculated) ^(b)	mg/L	-	-	381	333	-
Major Ions						
Calcium	mg/L	0.05	0.25	70.5	58.8	18
Chloride	mg/L	0.5	2.5	97.2	100	3
Bromide	mg/L	0.1	0.5	< 0.1	< 0.1	n/a
Fluoride	mg/L	0.02	0.1	0.23	0.14	49
Magnesium	mg/L	0.005	0.025	49.9	45.1	10
Potassium	mg/L	0.05	0.25	4.37	3.86	12
Sodium	mg/L	0.05	0.25	8.64	7.09	20
Sulfate	mg/L	0.3	1.5	11	12.2	10
Nutrients						
Nitrate	mg/L as N	0.02	0.1	0.162	0.176	8
Nitrite	mg/L as N	0.01	0.05	0.017	0.019	n/a
Total Ammonia	mg/L as N	0.005	-	0.319	0.304	5
Phosphorus, Nutrient	mg/L	0.002	-	-	-	n/a
Phosphorus, total	mg/L	0.002	0.01	0.0156	0.0153	2
Total Kjeldahl Nitrogen	mg/L	0.05	0.25	0.686	0.682	1
Petroleum Hydrocarbons (PHCs) and BTEX						
Benzene	µg/L	0.5	2.5	0.5	0.51	n/a
Toluene	µg/L	0.5	2.5	0.58	< 0.5	n/a
Ethylbenzene	µg/L	0.5	2.5	6.05	5.45	10
o-Xylene	µg/L	0.3	1.5	56.3	50.5	11
m+p-Xylenes	µg/L	0.4	2	21.9	16.7	27
Total Xylenes	µg/L	0.5	2.5	78.2	67.2	15
BTEX, Total	µg/L	1	5	85.3	73.2	15
Monochlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
F1 (C6-C10)	µg/L	25	125	157	152	3
F1 (C6-C10)-BTEX	µg/L	25	125	72	79	n/a
F2 (C10-C16)	µg/L	100	500	440	400	n/a
F3 (C16-C34)	µg/L	250	1250	< 250	< 250	n/a
F4 (C34-C50)	µg/L	250	1250	< 250	< 250	n/a
Total Petroleum Hydrocarbons	µg/L	370	1850	600	550	n/a
Oil and Grease						
Total Oil and Grease	mg/L	5	25	< 5	< 5	n/a
Volatil Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,1,1-Trichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,1,2,2-Tetrachloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,1,2-Trichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,1-Dichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,1-Dichloroethylene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,2-Dibromoethane	µg/L	0.2	1	< 0.2	< 0.2	n/a
1,2-Dichlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,2-Dichloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,2-Dichloropropane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,3-Dichlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,3-Dichloropropene (cis & trans)	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
1,4-Dichlorobenzene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Methyl Ethyl Ketone	µg/L	20	100	< 20	< 20	n/a
Methyl Isobutyl Ketone	µg/L	20	100	< 20	< 20	n/a
Methyl t-butyl ether (MTBE)	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Acetone	µg/L	20	100	< 20	< 20	n/a
Bromomethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
cis-1,2-Dichloroethylene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
trans-1,2-Dichloroethylene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
dichloroethylene, cis+trans-1,2-	µg/L	0.71	3.55	< 0.71	< 0.71	n/a
cis-1,3-Dichloropropene	µg/L	0.3	1.5	< 0.3	< 0.3	n/a
trans-1,3-Dichloropropene	µg/L	0.3	1.5	< 0.3	< 0.3	n/a
Dibromochloromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Dichlorodifluoromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Dichloromethane	µg/L	1	5	< 1	< 1	n/a
Chloromethane	µg/L	2	10	< 2	< 2	n/a
Tetrachloroethylene (PCE)	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Trichloroethylene (TCE)	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Trichlorofluoromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Trihalomethanes, Total	µg/L	1	5	< 1.0	< 1.0	n/a
Chloroethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
hexanone, 2-	µg/L	20	100	< 20	< 20	n/a
n-Hexane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Bromodichloromethane	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Vinyl chloride	µg/L	0.2	1	< 0.2	< 0.2	n/a
Bromoform	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Chloroform	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	µg/L	0.01	0.05	< 0.089	< 0.084	n/a
Acenaphthylene	µg/L	0.01	0.05	< 0.025	< 0.024	n/a
Acridine	µg/L	0.01	0.05	< 0.013	< 0.013	n/a
Anthracene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
1+2-Methylnaphthalenes	µg/L	0.015	0.075	17.1	14.1	19
1-Methylnaphthalene	µg/L	0.01	0.05	7.44	6.35	16
2-Methylnaphthalene	µg/L	0.01	0.05	9.63	7.76	22
B(a)P Total Potency Equivalent	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Benzo(a)anthracene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Benzo(a)pyrene	µg/L	0.005	0.025	< 0.005	< 0.005	n/a
Benzo(b)fluoranthene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Benzo(b)k)fluoranthene	µg/L	0.015	0.075	< 0.015	< 0.015	n/a
Benzo(g,h,i)perylene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Benzo(k)fluoranthene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Carbon tetrachloride	µg/L	0.2	1	< 0.2	< 0.2	n/a
Carbon disulfide	µg/L	1	5	< 1	< 1	n/a
Chrysene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Dibenz(a,h)anthracene	µg/L	0.005	0.025	< 0.005	< 0.005	n/a
Fluoranthene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Fluorene	µg/L	0.01	0.05	0.132	0.122	8
Indeno(1,2,3-cd)pyrene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Naphthalene	µg/L	0.01	0.05	13.6	13	5
Perylene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Phenanthrene	µg/L	0.01	0.05	0.025	0.029	n/a
Pyrene	µg/L	0.01	0.05	< 0.01	< 0.01	n/a
Quinoline	µg/L	0.01	0.05	< 0.838	< 0.767	n/a
Styrene	µg/L	0.5	2.5	< 0.5	< 0.5	n/a
Dissolved Metals						
Aluminum	mg/L	0.001	0.005	0.0098	0.0114	15
Antimony	mg/L	0.0001	0.0005	< 0.0001	< 0.0001	n/a
Arsenic	mg/L	0.0001	0.0005	0.00051	0.0006	16
Barium	mg/L	0.0001	0.0005	0.088	0.0749	16
Beryllium	mg/L	0.00002	0.0001	< 0.00002	< 0.00002	n/a
Bismuth	mg/L	0.00005	0.00025	< 0.00005	< 0.00005	n/a
Boron	mg/L	0.01	0.05	0.025	0.02	n/a
Cadmium	mg/L	0.000005	0.000025	0.0000163	0.0000119	n/a
Cesium	mg/L	0.00001	0.00005	< 0.00001	< 0.00001	n/a
Chromium	mg/L	0.0005	0.0025	0.0015	0.0016	n/a
Cobalt	mg/L	0.0001	0.0005	0.00472	0.00442	7
Copper	mg/L	0.0002	0.001	0.00222	0.00213	4
Iron	mg/L	0.01	0.05	1.2	1.5	22
Lead	mg/L	0.00005	0.00025	< 0.00005	< 0.00005	n/a
Lithium	mg/L	0.001	0.005	0.026	0.0203	28
Manganese	mg/L	0.001	0.0005	1.48	1.43	3
Mercury	mg/L	0.000005	0.000025	< 0.000005	< 0.000005	n/a
Molybdenum	mg/L	0.00005	0.00025	0.00112	0.00123	9
Nickel	mg/L	0.0005	0.0025	0.0466	0.0422	10
Phosphorus	mg/L	0.05	0.25	< 0.050	< 0.050	n/a
Rubidium	mg/L	0.0002	0.001	0.00581	0.00537	8
Selenium	mg/L	0.00005	0.00025	0.000069	0.000062	n/a
Silicon	mg/L	0.05	0.25	7	6.93	1
Silver	mg/L	0.00001	0.00005	< 0.00001	0.00001	n/a
Strontium	mg/L	0.0002	0.001	0.554	0.45	21
Sulfur	mg/L	0.5	2.5	5.66	4.81	16
Tellurium	mg/L	0.0002	0.001	< 0.0002	< 0.0002	n/a
Thallium	mg/L	0.00001	0.00005	0.000018	0.000014	n/a
Thorium	mg/L	0.0001	0.0005	< 0.0001	0.0001	n/a
Tin	mg/L	0.0001	0.0005	< 0.0001	< 0.0001	n/a
Titanium	mg/L	0.0003	0.0015	< 0.0003	< 0.0003	n/a
Tungsten	mg/L	0.001	0.0005	< 0.0001	< 0.0001	n/a
Uranium	mg/L	0.00001	0.00005	0.00323	0.00269	18
Vanadium	mg/L	0.0005	0.0025	< 0.0005	< 0.0005	n/a
Zinc	mg/L	0.001	0.005	< 0.001	< 0.001	n/a
Zirconium	mg/L	0.0003	0.0015	0.00092	0.00089	n/a

as N: as Nitrogen, CaCO₃: Calcium Carbonate, mg/L: milligram per litre, RPD: relative percent difference, µS/c: microsiemens per centimetre, NTU: nephelometric turbidity units, T/D/N: Total/Dissolved/Normal, < : less than, n/a: not applicable, °C: degrees Celsius, FDA: field duplicate available, FD: field duplicate

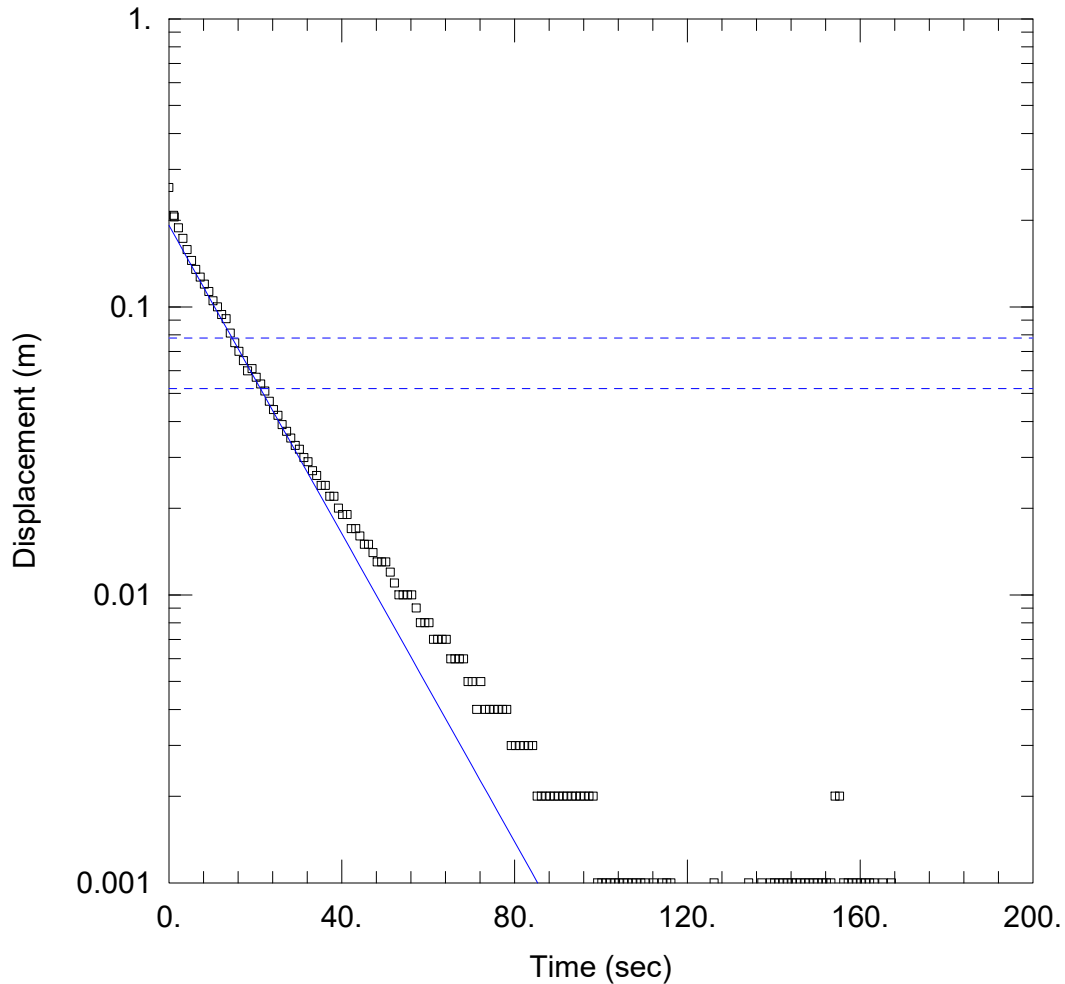
(a) RPDs were only calculated if one or more concentrations in duplicate samples were greater than five times the reported detection limit. The RPD was reported as 'not applicable' (na) in cases where the results did not meet the calculation criteria.

(b) Hardness not provided by the laboratory. Hardness was calculated based on Magnesium (Mg) and Calcium (Ca) concentrations for each sample.

Value	RPD greater than 20%
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APPENDIX G

Single Well Response Testing



WELL TEST ANALYSIS

Data Set: C:\...\HWB-KP22-03_QA_JP.aqt
 Date: 12/01/25

Time: 13:19:01

PROJECT INFORMATION

Company: WSP
 Test Well: HWB-KP22-03
 Test Date: 05/09/2025

AQUIFER DATA

Saturated Thickness: 1.145 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (HWB-KP22-03)

Initial Displacement: 0.26 m
 Total Well Penetration Depth: 1.05 m
 Casing Radius: 0.025 m

Static Water Column Height: 1.05 m
 Screen Length: 1. m
 Well Radius: 0.076 m

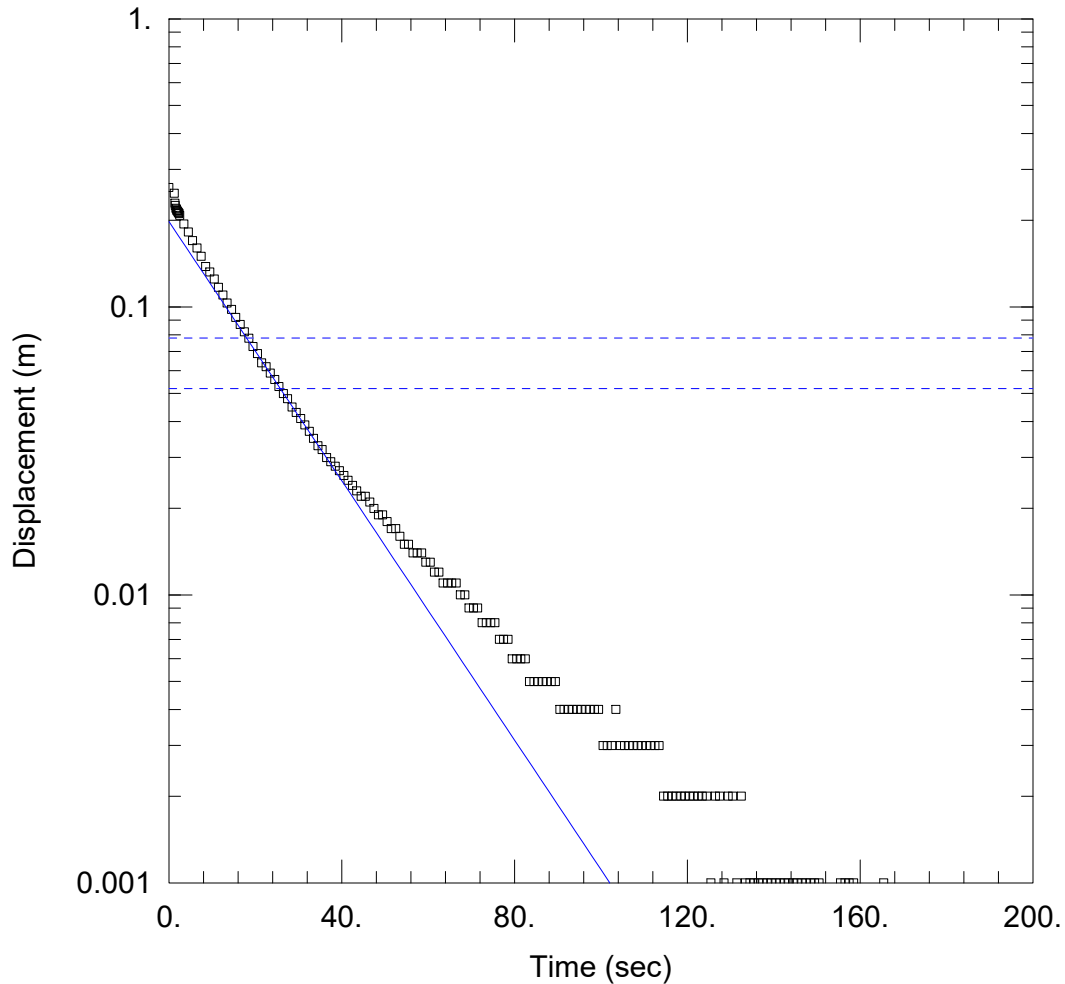
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 5.148E-5$ m/sec

$y_0 = 0.1916$ m



WELL TEST ANALYSIS

Data Set: C:\...\HWB-KP22-05_QA_JP.aqt
 Date: 12/01/25

Time: 13:19:49

PROJECT INFORMATION

Company: WSP
 Test Well: HWB-KP22-05
 Test Date: 02/09/2025

AQUIFER DATA

Saturated Thickness: 1.12 m

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (HWB-KP22-05)

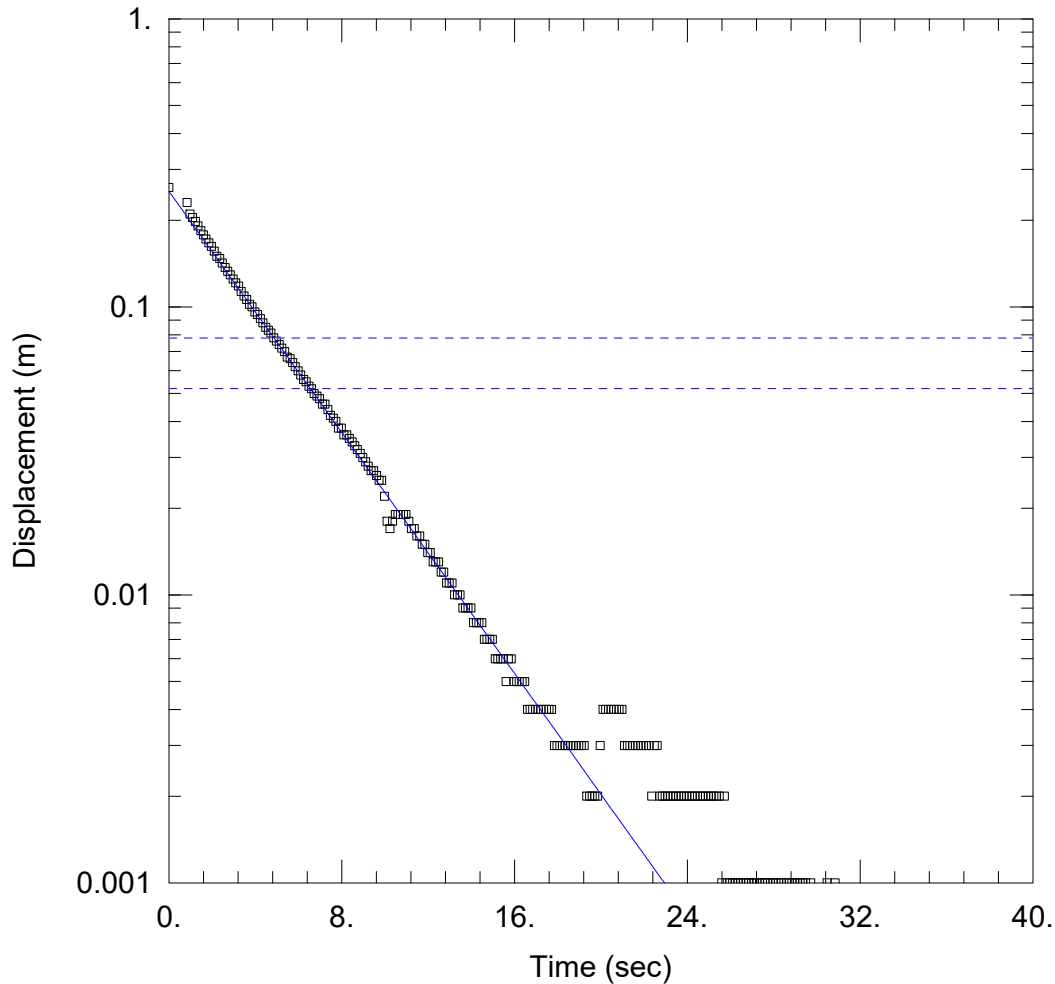
Initial Displacement: 0.26 m
 Total Well Penetration Depth: 1.02 m
 Casing Radius: 0.025 m

Static Water Column Height: 1.02 m
 Screen Length: 1. m
 Well Radius: 0.076 m

SOLUTION

Aquifer Model: Unconfined
 K = 4.299E-5 m/sec

Solution Method: Bouwer-Rice
 y0 = 0.1978 m



WELL TEST ANALYSIS

Data Set: C:\...\HWB-KP22-06_QA_JP.aqt
 Date: 12/01/25

Time: 13:20:29

PROJECT INFORMATION

Company: WSP
 Test Well: HWB-KP22-06
 Test Date: 04/09/2025

AQUIFER DATA

Saturated Thickness: 0.83 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (HWB-KP22-06)

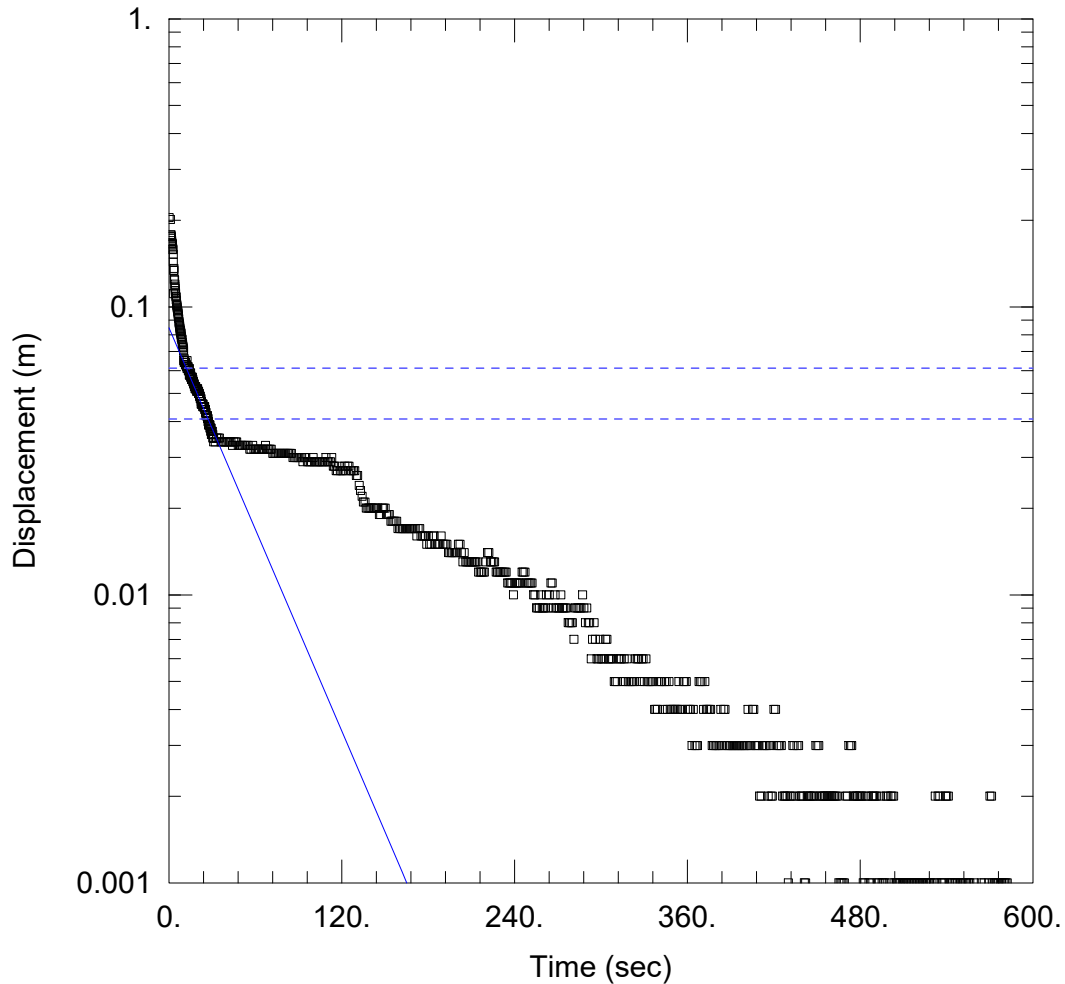
Initial Displacement: 0.26 m
 Total Well Penetration Depth: 0.78 m
 Casing Radius: 0.025 m

Static Water Column Height: 0.78 m
 Screen Length: 0.75 m
 Well Radius: 0.076 m

SOLUTION

Aquifer Model: Unconfined
 K = 0.0002478 m/sec

Solution Method: Bouwer-Rice
 y_0 = 0.2517 m



WELL TEST ANALYSIS

Data Set: C:\...\HWB-KP23-02_QA_JP.aqt
 Date: 12/01/25

Time: 13:21:03

PROJECT INFORMATION

Company: WSP
 Test Well: HWB-KP23-02
 Test Date: 05/09/2025

AQUIFER DATA

Saturated Thickness: 0.87 m

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (HWB-KP23-02)

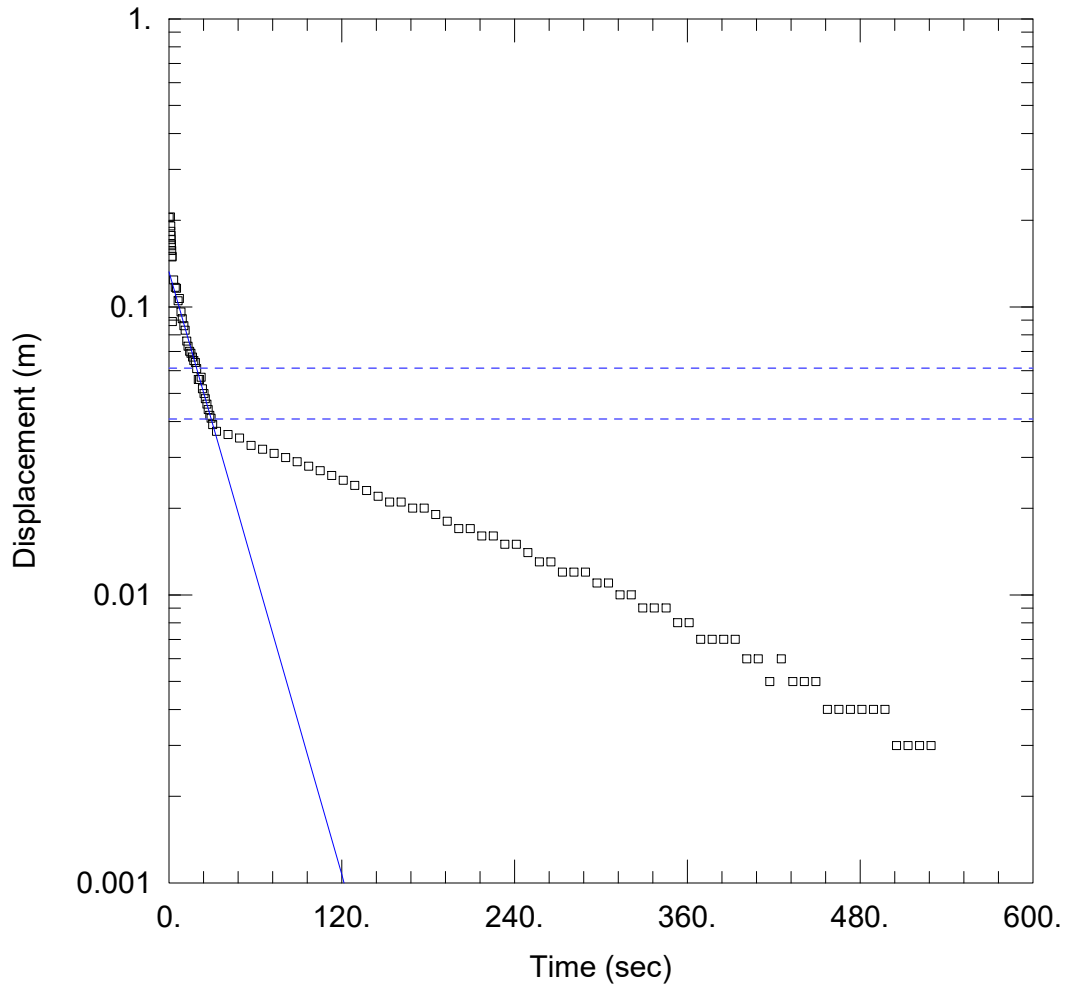
Initial Displacement: 0.204 m
 Total Well Penetration Depth: 0.87 m
 Casing Radius: 0.013 m

Static Water Column Height: 0.87 m
 Screen Length: 0.75 m
 Well Radius: 0.033 m

SOLUTION

Aquifer Model: Unconfined
 K = 1.023E-5 m/sec

Solution Method: Bouwer-Rice
 y0 = 0.08462 m



WELL TEST ANALYSIS

Data Set: C:\...\LF-KP23-04_QA_JP.aqt
 Date: 12/01/25

Time: 13:28:07

PROJECT INFORMATION

Company: WSP
 Test Well: LK-KP23-04
 Test Date: 05/09/2025

AQUIFER DATA

Saturated Thickness: 0.48 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (LF-KP23-04)

Initial Displacement: 0.204 m
 Total Well Penetration Depth: 0.84 m
 Casing Radius: 0.013 m

Static Water Column Height: 0.84 m
 Screen Length: 0.61 m
 Well Radius: 0.033 m

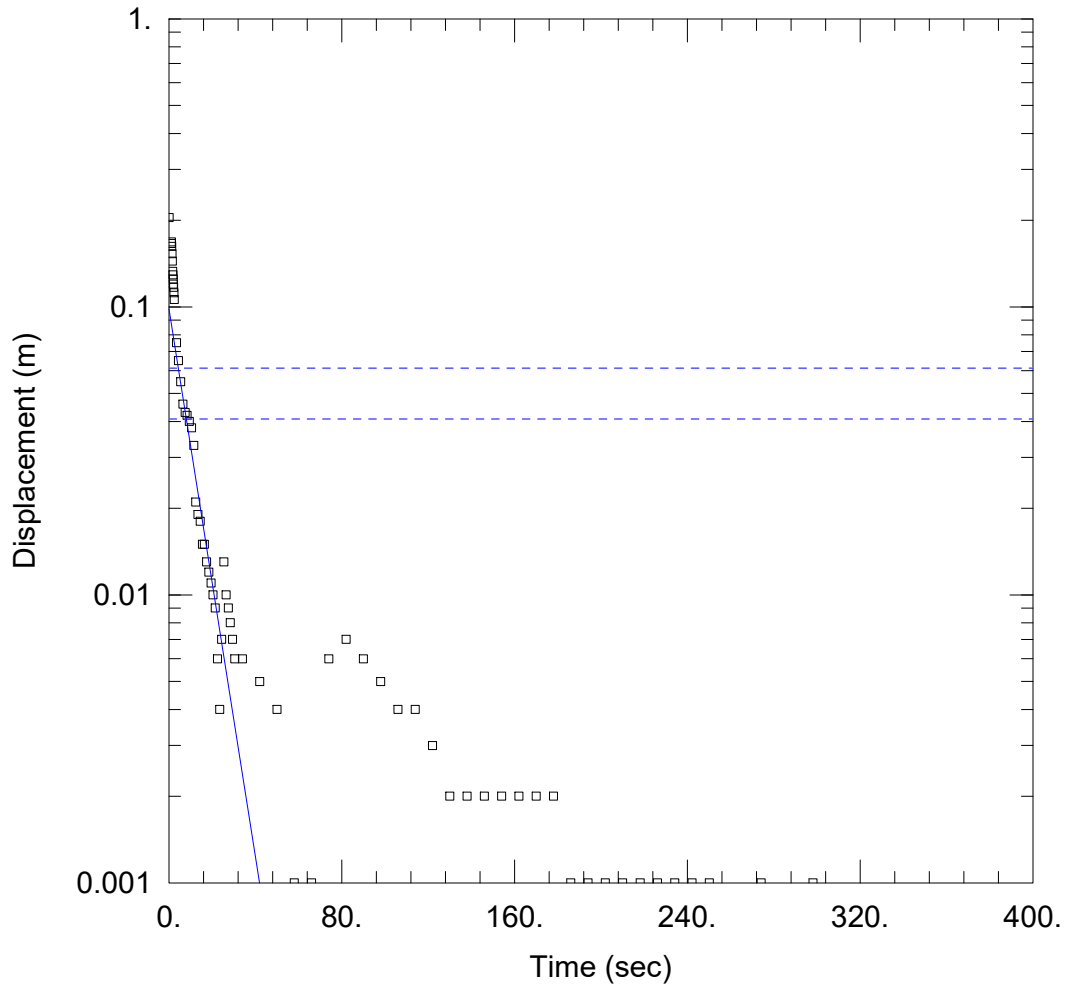
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 1.6E-5$ m/sec

$y_0 = 0.1323$ m



WELL TEST ANALYSIS

Data Set: C:\...\LF-KP23-06_QA_JP.aqt
 Date: 12/01/25

Time: 13:21:47

PROJECT INFORMATION

Company: WSP
 Test Well: LK-KP23-06
 Test Date: 05/09/2025

AQUIFER DATA

Saturated Thickness: 0.84 m

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (LF-KP23-06)

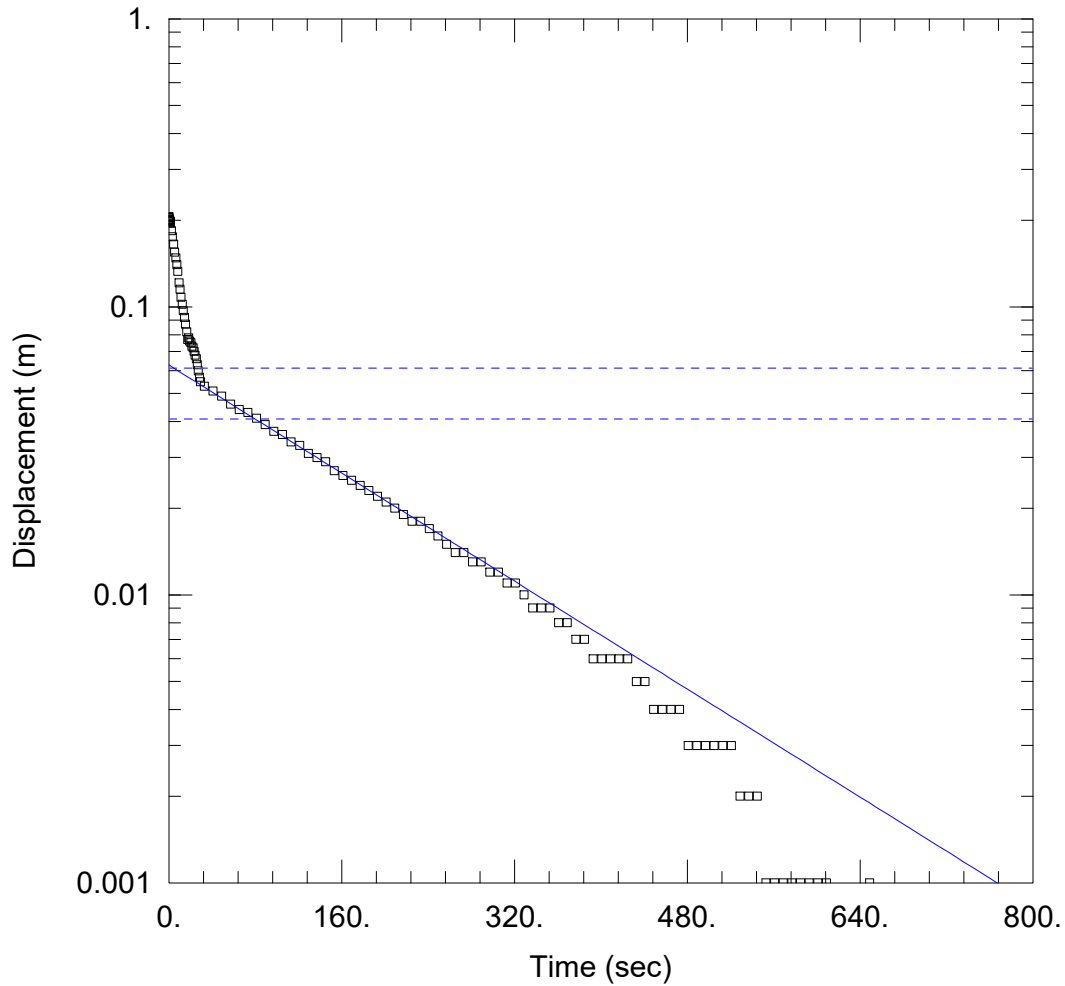
Initial Displacement: 0.204 m
 Total Well Penetration Depth: 0.75 m
 Casing Radius: 0.013 m

Static Water Column Height: 0.74 m
 Screen Length: 0.75 m
 Well Radius: 0.033 m

SOLUTION

Aquifer Model: Unconfined
 K = 3.772E-5 m/sec

Solution Method: Bouwer-Rice
 y0 = 0.09824 m



WELL TEST ANALYSIS

Data Set: C:\...\LF-KP23-09_QA_JP.aqt
 Date: 12/01/25

Time: 13:22:34

PROJECT INFORMATION

Company: WSP
 Test Well: LK-KP23-09
 Test Date: 05/09/2025

AQUIFER DATA

Saturated Thickness: 1.05 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (LF-KP23-09)

Initial Displacement: 0.204 m
 Total Well Penetration Depth: 0.75 m
 Casing Radius: 0.013 m

Static Water Column Height: 0.74 m
 Screen Length: 0.75 m
 Well Radius: 0.033 m

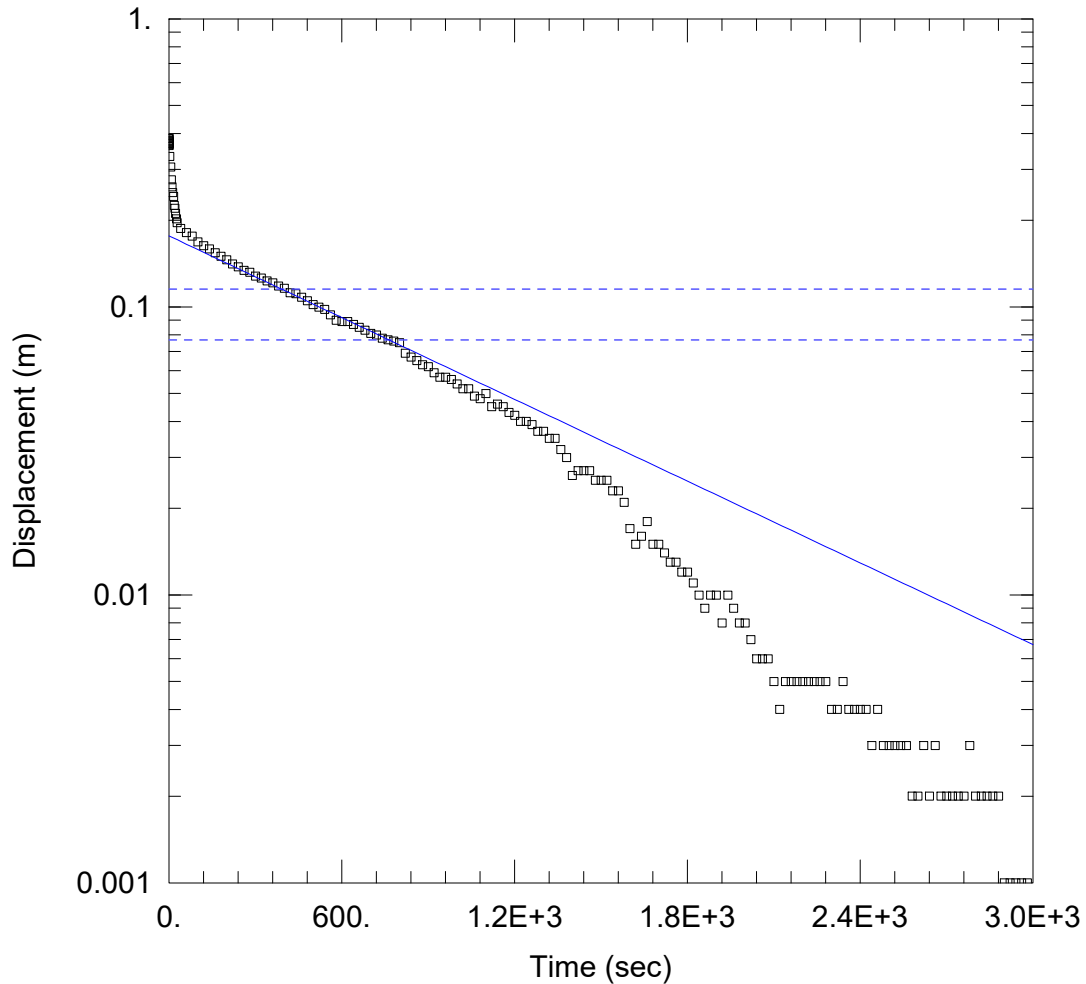
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 1.806E-6$ m/sec

$y_0 = 0.06281$ m



WELL TEST ANALYSIS

Data Set: C:\...\LF-KP23-11_QA_JP.aqt
 Date: 12/01/25

Time: 13:23:23

PROJECT INFORMATION

Company: WSP
 Test Well: LK-KP23-11
 Test Date: 31/08/2025

AQUIFER DATA

Saturated Thickness: 1.08 m

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (LF-KP23-11)

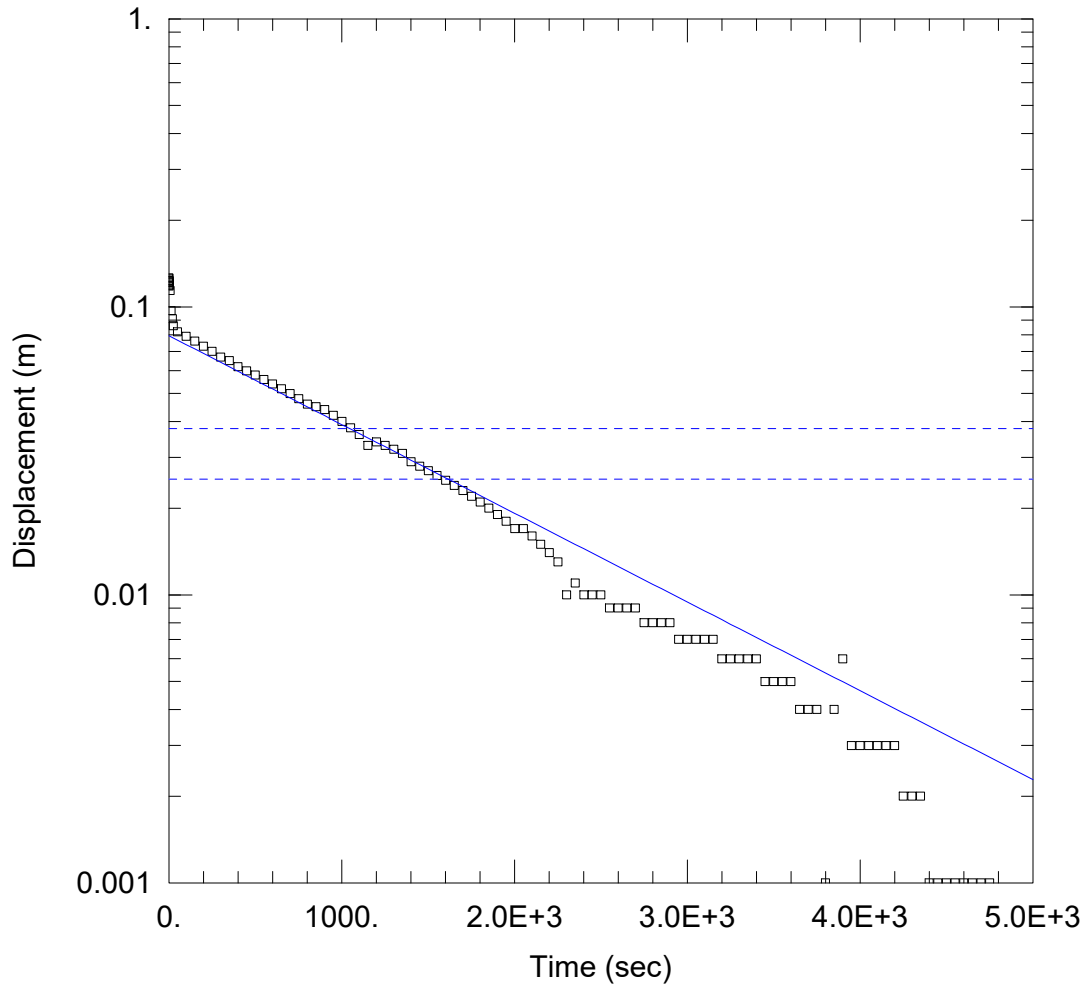
Initial Displacement: 0.384 m
 Total Well Penetration Depth: 1.08 m
 Casing Radius: 0.013 m

Static Water Column Height: 1.08 m
 Screen Length: 0.75 m
 Well Radius: 0.033 m

SOLUTION

Aquifer Model: Unconfined
 K = 4.316E-7 m/sec

Solution Method: Bouwer-Rice
 y0 = 0.1764 m



WELL TEST ANALYSIS

Data Set: C:\...\LF-KP23-13-QA_JP.aqt
 Date: 12/01/25

Time: 13:24:08

PROJECT INFORMATION

Company: WSP
 Test Well: LK-KP23-13
 Test Date: 03/09/2025

AQUIFER DATA

Saturated Thickness: 0.33 m

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (LF-KP23-13)

Initial Displacement: 0.126 m
 Total Well Penetration Depth: 0.75 m
 Casing Radius: 0.013 m

Static Water Column Height: 0.63 m
 Screen Length: 0.75 m
 Well Radius: 0.033 m

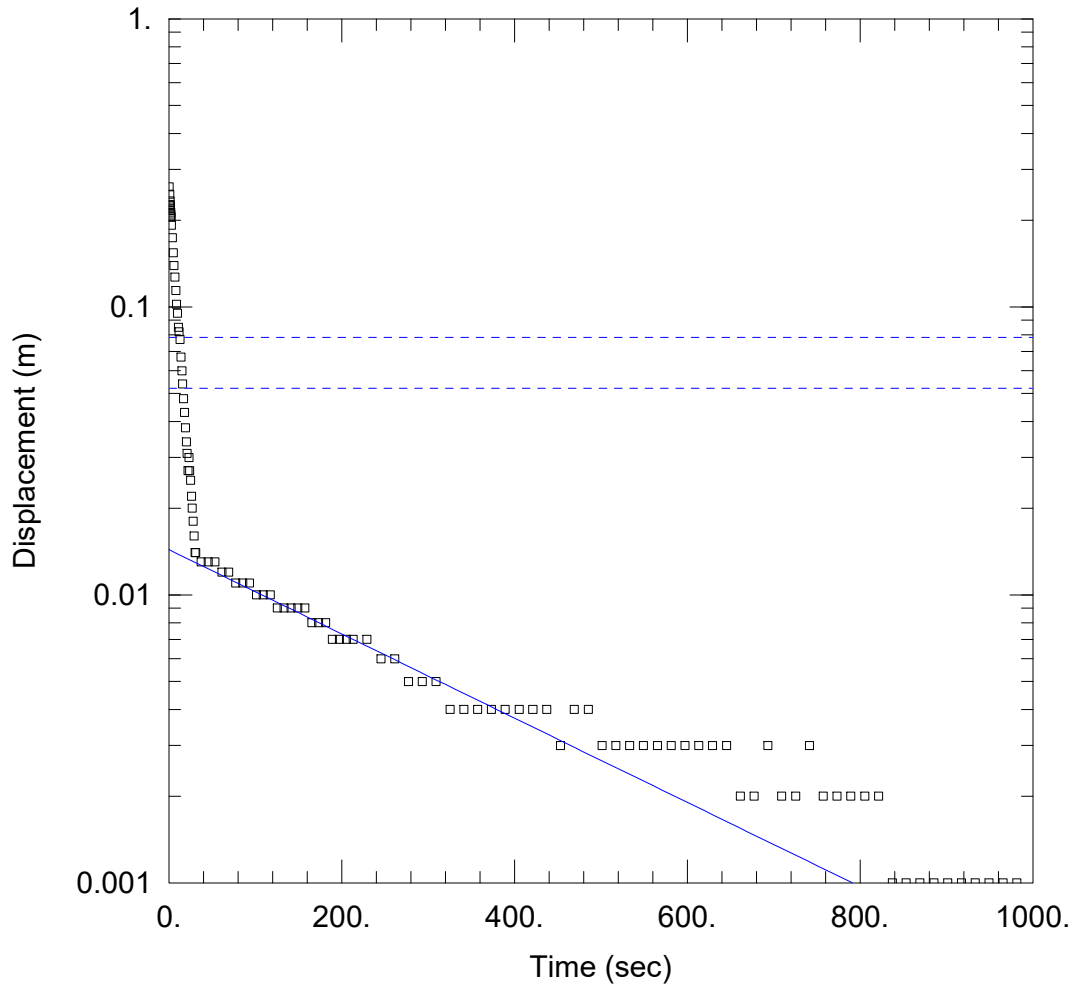
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 3.782E-7 m/sec

y0 = 0.07937 m



WELL TEST ANALYSIS

Data Set: C:\...\MS-HWB-25-03 updated_QA_JP.aqt

Date: 12/01/25

Time: 13:27:05

PROJECT INFORMATION

Company: WSP

Test Well: MS-HWB-25-03

Test Date: 04/09/2025

AQUIFER DATA

Saturated Thickness: 0.97 m

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MS-HWB-25-03)

Initial Displacement: 0.261 m

Static Water Column Height: 0.97 m

Total Well Penetration Depth: 0.97 m

Screen Length: 0.97 m

Casing Radius: 0.025 m

Well Radius: 0.076 m

SOLUTION

Aquifer Model: Unconfined

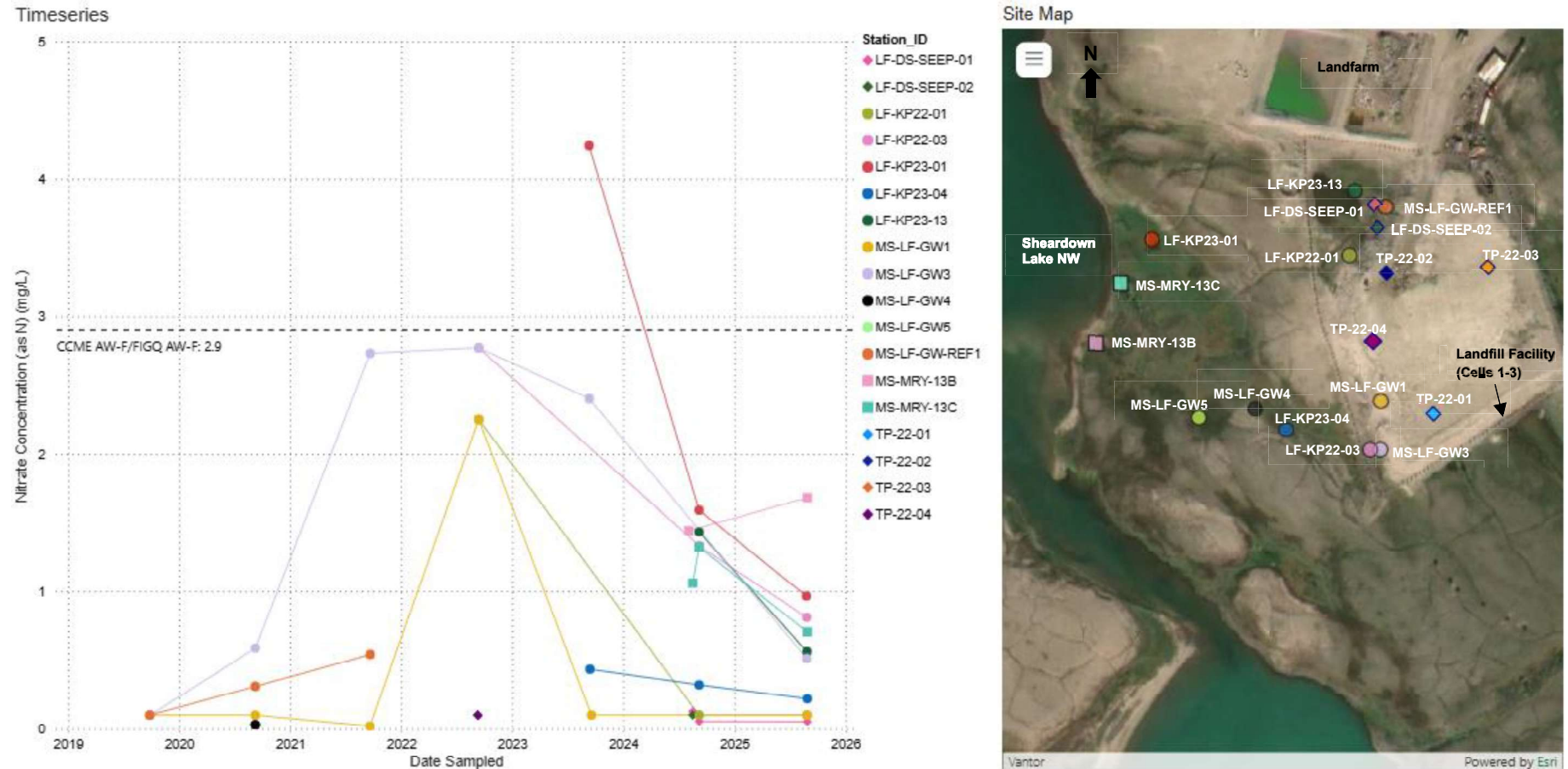
Solution Method: Bouwer-Rice

K = 2.0E-6 m/sec

y0 = 0.01436 m

APPENDIX H

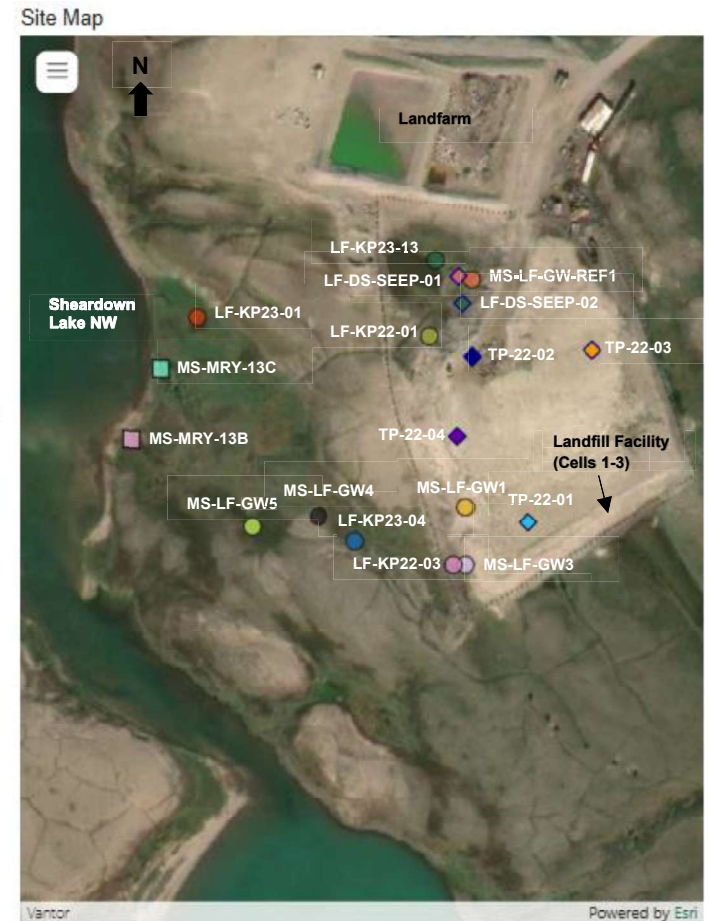
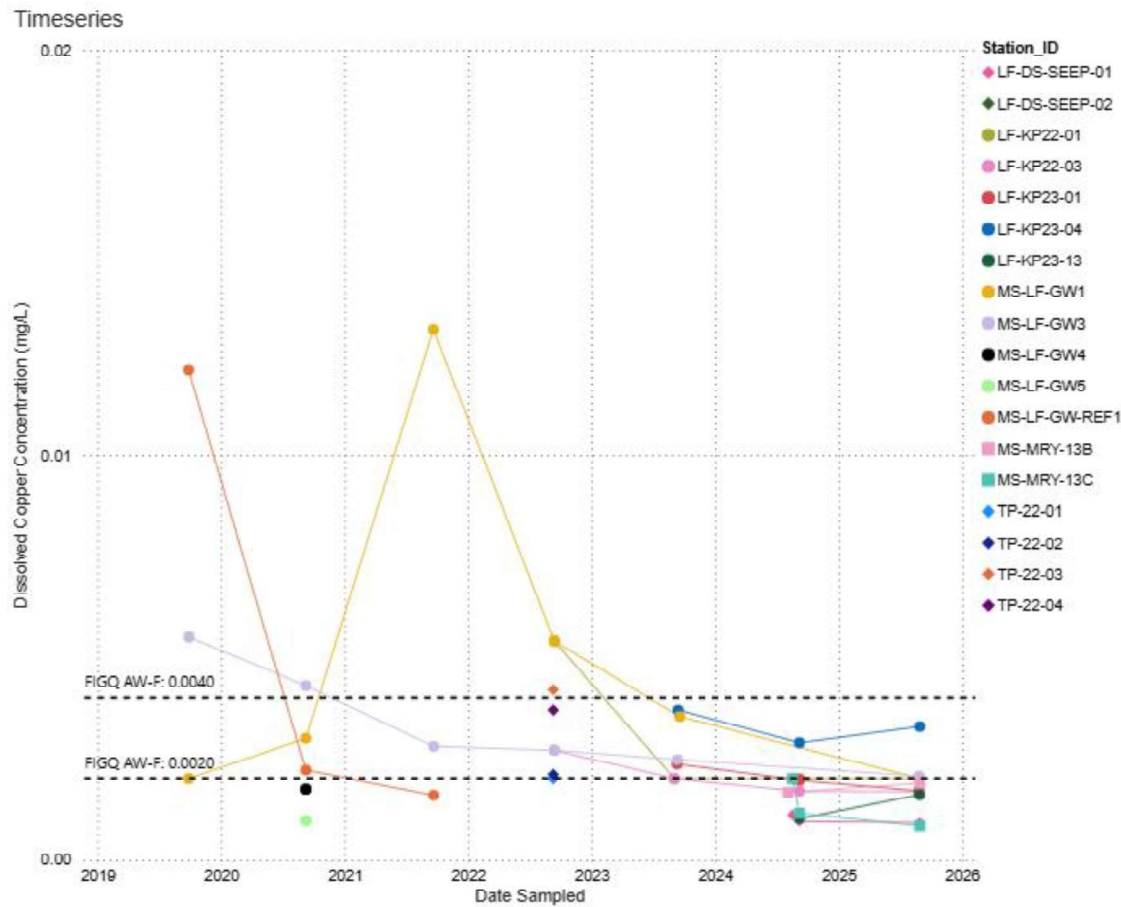
Timeseries



Appendix H-1: Nitrate Concentrations at Source and Downgradient Stations at the Landfill Facility

Notes: CCME AW-F = Canadian Council of Ministers of the Environment Freshwater Aquatic Life guideline; CSR = Contaminated Sites Regulation; FIGQ AW-F = Federal Interim Groundwater Quality Freshwater Aquatic Life guideline; NW = Northwest. The nitrate Yukon CSR standard (400 mg/L) was not plotted in the timeseries. Results below detection limits are showing at detection limit on the figure.

Square symbol = surface water station; Circle symbol = groundwater station (drive point piezometer, standpipe well without bentonite seal or standpipe well with bentonite seal), Diamond symbol = seep station
 Downgradient stations: LF-KP23-01, LF-KP-23-04, MS-LF-GW4, MS-LF-GW5, MS-MRY-13B, MS-MRY-13C. Source stations: LF-DS-SEEP-01, LF-DS-SEEP-02, LF-KP22-01, LF-KP22-03, LF-KP23-13, MS-LF-GW1, MS-LF-GW3, MS-LF-GW-REF1, TP-22-01, TP-22-02, TP-22-03, TP-22-04.



Appendix H-2: Dissolved Copper Concentrations at Source and Downgradient Stations at the Landfill Facility

Notes: CCME AW-F: Canadian Council of Ministers of the Environment for the Protection of Freshwater Aquatic Life; CSR = Contaminated Sites Regulation; FIGQ AW-F = Federal Interim Groundwater Quality for the Protection of Freshwater Aquatic Life; NW = Northwest.

The dissolved copper FIGQ AW-F guideline is hardness dependent. The guideline is calculated based on the individual hardness value for each sample. There is no dissolved copper CCME AW-F guideline for surface water stations (ie, MS-MRY-13B and MS-MRY-13C). However, the total copper CCME AW-F guideline ranges from 0.0020 to 0.0040 mg/L.

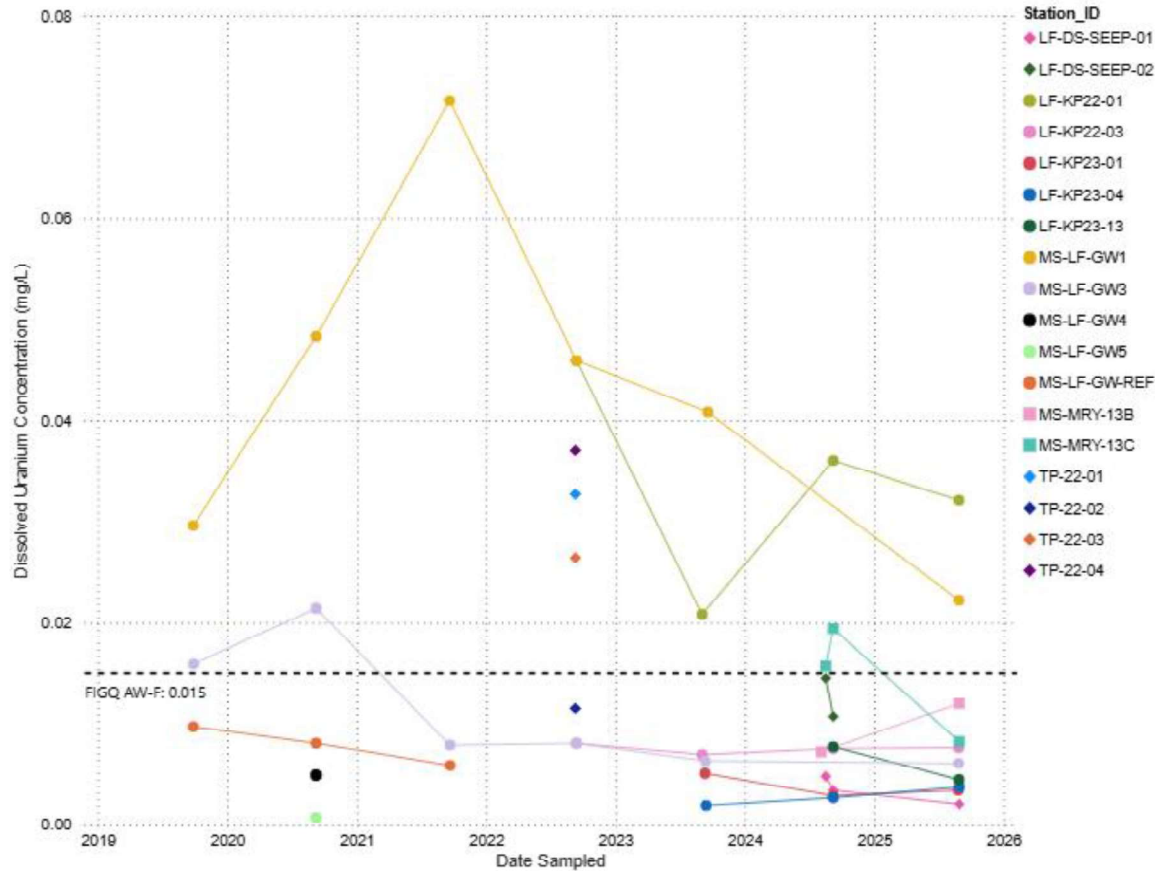
The dissolved copper Yukon CSR standard (0.020 to 0.090 mg/L, hardness dependent) was not plotted in the timeseries.

Results below detection limits are showing at detection limit on the figure.

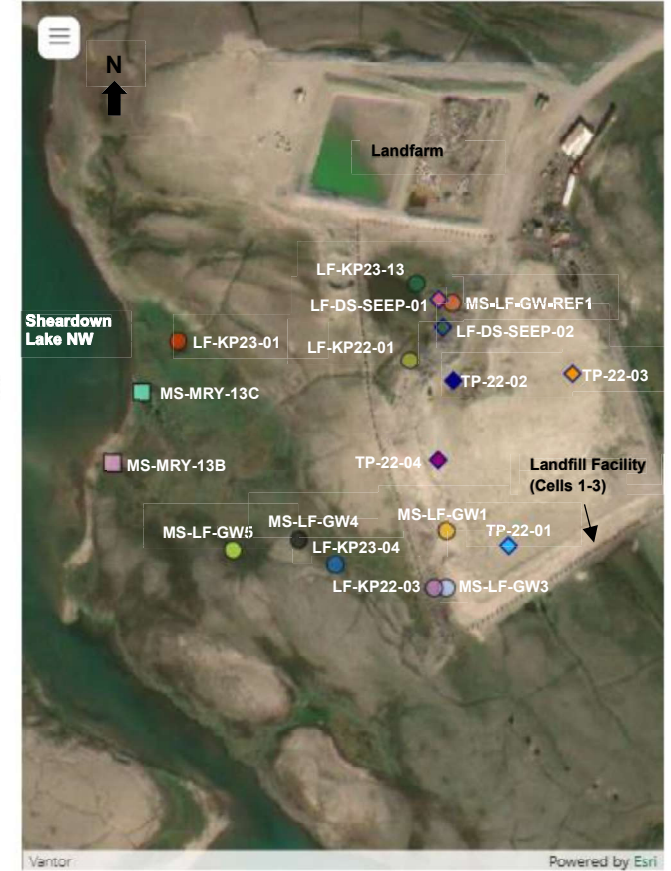
Square symbol = surface water station; Circle symbol = groundwater station (drive point piezometer or standpipe well without bentonite seal), Diamond symbol = seep station

Downgradient stations: LF-KP23-01, LF-KP-23-04, MS-LF-GW4, MS-LF-GW5, MS-MRY-13B, MS-MRY-13C. Source stations: LF-DS-SEEP-01, LF-DS-SEEP-02, LF-KP22-01, LF-KP22-03, LF-KP23-13, MS-LF-GW1, MS-LF-GW3, MS-LF-GW-REF1, TP-22-01, TP-22-02, TP-22-03, TP-22-04.

Timeseries



Site Map



Appendix H-3: Dissolved Uranium Concentrations at Source and Downgradient Stations at the Landfill Facility

Notes: CCME AW-F: Canadian Council of Ministers of the Environment for Protection of Freshwater Aquatic Life; CSR = Contaminated Sites Regulation; FIGQ AW-F = Federal Interim Groundwater Quality for Protection of Freshwater Aquatic Life; NW = Northwest.

There are no dissolved uranium CCME AW-F guideline for surface water stations (ie, MS-MRY-13B and MS-MRY-13C). However, the total uranium CCME AW-F guideline is 0.015 mg/L.

The dissolved uranium Yukon CSR standard (3 mg/L) was not plotted in the timeseries.

Results below detection limits are showing at detection limit on the figure.

Square symbol = surface water station; Circle symbol = groundwater station (drive point piezometer or standpipe well without bentonite seal), Diamond symbol = seep station

Downgradient stations: LF-KP23-01, LF-KP-23-04, MS-LF-GW4, MS-LF-GW5, MS-MRY-13B, MS-MRY-13C. Source stations: LF-DS-SEEP-01, LF-DS-SEEP-02, LF-KP22-01, LF-KP22-03, LF-KP23-13, MS-LF-GW1, MS-LF-GW3, MS-LF-GW-REF1, TP-22-01, TP-22-02, TP-22-03, TP-22-04.

APPENDIX I

Heat maps

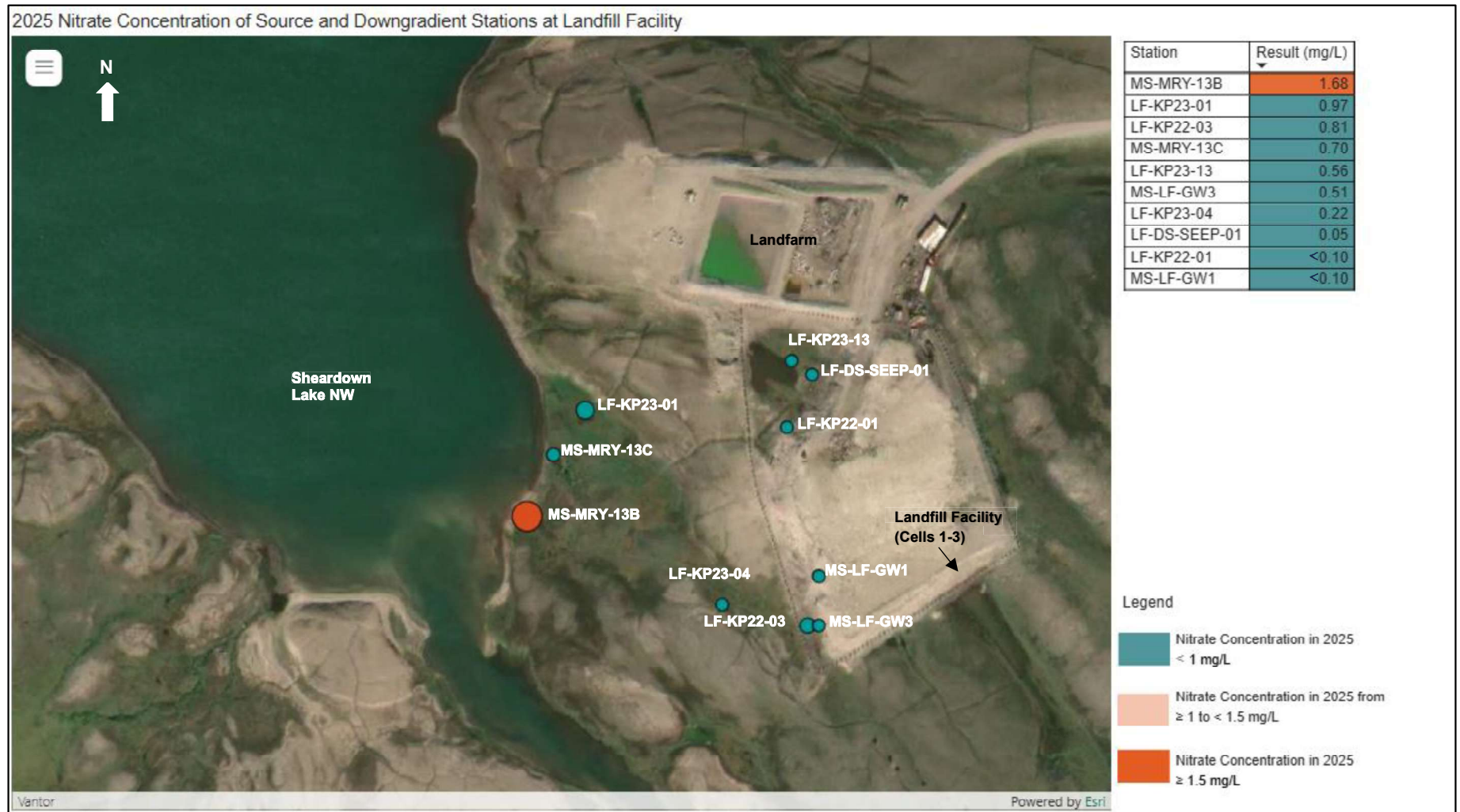


Figure I-1: Nitrate Concentration at Source, Proximal and Downgradient Stations at the Landfill Facility in 2025

Notes: Figure shows maximum concentration at each station in 2025.

Size and colour of the circle symbol indicate concentration distribution at the Landfill Facility.

Downgradient stations: LF-KP23-01, LF-KP-23-04, MS-MRY-13B, MS-MRY-13C. Source stations: LF-DS-SEEP-01, LF-KP22-01, LF-KP22-03, LF-KP23-13, MS-LF-GW1, MS-LF-GW3,

Surface water stations: MS-MRY-13B, MS-MRY-13B. Seep stations: LF-DS-SEEP-01. Groundwater stations: LF-KP22-01, LF-KP22-03, LF-KP23-01, LF-KP23-04, LF-KP23-13, MS-LF-GW1, MS-LF-GW3.



Figure I-2: Dissolved Copper Concentration at Source, Proximal and Downgradient Stations at the Landfill Facility in 2025

Notes: Figure shows maximum concentration at each station in 2025.

Size and colour of the circle symbol indicate concentration distribution at the Landfill Facility.

Downgradient stations: LF-KP23-01, LF-KP-23-04, MS-MRY-13B, MS-MRY-13C. Source stations: LF-DS-SEEP-01, LF-KP22-01, LF-KP22-03, LF-KP23-13, MS-LF-GW1, MS-LF-GW3,

Surface water stations: MS-MRY-13B, MS-MRY-13B. Seep stations: LF-DS-SEEP-01. Groundwater stations: LF-KP22-01, LF-KP22-03, LF-KP23-01, LF-KP23-04, LF-KP23-13, MS-LF-GW1, MS-LF-GW3.