CERTIFICATE OF ANALYSIS

Work Order	: **FC2600951**		
Amendment	: **1**		
Client	: **Regional Municipality of Wood Buffalo**	Laboratory	: ALS Environmental - Fort McMurray
Contact	: Water Treatment Plant	Account Manager	: Vishal Akolkar
Address	: 1 Silin Forest Road Fort Mcmurray Alberta Canada T9H 5A1	Address	: #4, 340 Macalpine Crescent Fort McMurray AB Canada T9H 4A8
Telephone	: 780-762-5863	E-mail	: Vishal.Akolkar@alsglobal.com
Project	: Fort Chipewyan Table 1	Telephone	: +1 780 791 1524
PO	: 4500068005	Date Samples Received	: 12-May-2026 15:30
C-O-C number	: ----	Date Analysis Commenced	: 13-May-2026
Sampler	: JH	Issue Date	: 23-May-2026 15:03
Site	: ----		
Quote number	: Water Treatment Plant		
No. of samples received	: 1		
No. of samples analysed	: 1		

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.

Signatories	*Position*	*Laboratory Department*
Alex Drake	Lab Analyst	Metals, Edmonton, Alberta
Alex Drake	Lab Analyst	Inorganics, Edmonton, Alberta
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Dan Nguyen	Team Leader - Inorganics	Metals, Edmonton, Alberta
Daniel Nguyen	Laboratory Analyst	Metals, Edmonton, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
Monica Ko	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
Shruti Mudliar	Lab Analyst	Inorganics, Edmonton, Alberta

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).

Unit	*Description*
-	no units
%	percent
mg/L	milligrams per litre
pH units	pH units
psu	practical salinity 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.

Workorder Comments

Amendment (23/05/2026): This report has been amended following changes to the analytical data reported. The quality system is being utilised to resolve this issue. The specific data affected includes Total Metals ...

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
					Client sampling date / time: 11-May-2026 11:20	----	----	----	----
					FC2600951-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290/EO	1.2	mg/L	83.0	----	----	----	----
Alkalinity, carbonate (as CO3)	3812-32-6	E290/EO	1.0	mg/L	<0.6	----	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/EO	1.0	mg/L	<0.3	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/EO	1.0	mg/L	68.0	----	----	----	----
Conductivity	----	E100/EO	1.0	µS/cm	197	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/EO	0.50	mg/L	52.7	----	----	----	----
pH	----	E108/EO	0.10	pH units	8.28	----	----	----	----
Salinity	----	EC100S/VA	1.0	psu	<1.0	----	----	----	----
Solids, total dissolved [TDS], calculated	----	EC103/EO	1.0	mg/L	111	----	----	----	----
Anions and Nutrients									
Chloride	16887-00-6	E235.Cl/EO	0.50	mg/L	15.2	----	----	----	----
Fluoride	16984-48-8	E235.F/EO	0.020	mg/L	0.037	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/EO	0.020	mg/L	0.105	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/EO	0.0032	mg/L	0.105	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/EO	0.010	mg/L	<0.010	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/EO	0.30	mg/L	6.72	----	----	----	----
Total Sulfides									
Sulfide, total (as S)	18496-25-8	E395/CG	0.0015	mg/L	0.0031	----	----	----	----
Sulfide, total (as H2S)	7783-06-4	E395/CG	0.0016	mg/L	0.0033	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
Client sampling date / time					11-May-2026 11:20	----	----	----	----
					FC2600951-001	----	----	----	----
					Result	----	----	----	----
Metals									
Sodium adsorption ratio [SAR]	----	EC102A/EO	0.10	-	1.31	----	----	----	----
Ion Balance									
Ion balance (cations/anions)	----	EC101/EO	0.010	%	105	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/EO	0.0030	mg/L	0.0240	----	----	----	----
Antimony, total	7440-36-0	E420/EO	0.00010	mg/L	<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/EO	0.00010	mg/L	0.00017	----	----	----	----
Barium, total	7440-39-3	E420/EO	0.00010	mg/L	0.0227	----	----	----	----
Beryllium, total	7440-41-7	E420/EO	0.020	µg/L	<0.020	----	----	----	----
Bismuth, total	7440-69-9	E420/EO	0.050	µg/L	<0.050	----	----	----	----
Boron, total	7440-42-8	E420/EO	0.010	mg/L	0.016	----	----	----	----
Cadmium, total	7440-43-9	E420/EO	0.0050	µg/L	<0.0050	----	----	----	----
Calcium, total	7440-70-2	E420/EO	0.050	mg/L	13.4	----	----	----	----
Cesium, total	7440-46-2	E420/EO	0.010	µg/L	<0.010	----	----	----	----
Chromium, total	7440-47-3	E420/EO	0.00050	mg/L	<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/EO	0.00010	mg/L	<0.00010	----	----	----	----
Copper, total	7440-50-8	E420/EO	0.00050	mg/L	0.00067	----	----	----	----
Iron, total	7439-89-6	E420/EO	0.010	mg/L	<0.010	----	----	----	----
Lead, total	7439-92-1	E420/EO	0.050	µg/L	<0.050	----	----	----	----
Lithium, total	7439-93-2	E420/EO	0.0010	mg/L	0.0035	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:20	----	----	----	----
						FC2600951-001	----	----	----	----
						Result	----	----	----	----
Total Metals										
Magnesium, total	7439-95-4	E420/EO	0.0050	mg/L		3.98	----	----	----	----
Manganese, total	7439-96-5	E420/EO	0.00010	mg/L		0.0130	----	----	----	----
Molybdenum, total	7439-98-7	E420/EO	0.050	µg/L		0.302	----	----	----	----
Nickel, total	7440-02-0	E420/EO	0.00050	mg/L		0.00064	----	----	----	----
Phosphorus, total	7723-14-0	E420/EO	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/EO	0.050	mg/L		1.19	----	----	----	----
Rubidium, total	7440-17-7	E420/EO	0.00020	mg/L		0.00102	----	----	----	----
Selenium, total	7782-49-2	E420/EO	0.050	µg/L		<0.050	----	----	----	----
Silicon, total	7440-21-3	E420/EO	0.10	mg/L		2.40	----	----	----	----
Silver, total	7440-22-4	E420/EO	0.010	µg/L		<0.010	----	----	----	----
Sodium, total	7440-23-5	E420/EO	0.050	mg/L		22.1	----	----	----	----
Strontium, total	7440-24-6	E420/EO	0.00020	mg/L		0.0910	----	----	----	----
Sulfur, total	7704-34-9	E420/EO	0.50	mg/L		2.92	----	----	----	----
Tellurium, total	13494-80-9	E420/EO	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/EO	0.010	µg/L		<0.010	----	----	----	----
Thorium, total	7440-29-1	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/EO	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, total	7440-33-7	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/EO	0.010	µg/L		<0.010	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
Client sampling date / time					11-May-2026 11:20	----	----	----	----
					FC2600951-001	----	----	----	----
					Result	----	----	----	----
Total Metals									
Vanadium, total	7440-62-2	E420/EO	0.00050	mg/L	<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/EO	0.0030	mg/L	<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/EO	0.00020	mg/L	<0.00020	----	----	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/EO	0.0010	mg/L	0.0250	----	----	----	----
Antimony, dissolved	7440-36-0	E421/EO	0.00010	mg/L	<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/EO	0.00010	mg/L	0.00017	----	----	----	----
Barium, dissolved	7440-39-3	E421/EO	0.00010	mg/L	0.0235	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/EO	0.020	µg/L	<0.020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/EO	0.050	µg/L	<0.050	----	----	----	----
Boron, dissolved	7440-42-8	E421/EO	0.010	mg/L	0.016	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/EO	0.0050	µg/L	0.0067	----	----	----	----
Calcium, dissolved	7440-70-2	E421/EO	0.050	mg/L	14.2	----	----	----	----
Cesium, dissolved	7440-46-2	E421/EO	0.010	µg/L	<0.010	----	----	----	----
Chromium, dissolved	7440-47-3	E421/EO	0.00050	mg/L	<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/EO	0.00010	mg/L	<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/EO	0.00020	mg/L	0.00061	----	----	----	----
Iron, dissolved	7439-89-6	E421/EO	0.010	mg/L	<0.010	----	----	----	----
Lead, dissolved	7439-92-1	E421/EO	0.050	µg/L	<0.050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/EO	0.0010	mg/L	0.0041	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:20	----	----	----	----
						FC2600951-001	----	----	----	----
						Result	----	----	----	----
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/EO	0.0050	mg/L		4.19	----	----	----	----
Manganese, dissolved	7439-96-5	E421/EO	0.00010	mg/L		0.0130	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/EO	0.050	µg/L		0.298	----	----	----	----
Nickel, dissolved	7440-02-0	E421/EO	0.00050	mg/L		0.00060	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/EO	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/EO	0.050	mg/L		1.24	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/EO	0.00020	mg/L		0.00112	----	----	----	----
Selenium, dissolved	7782-49-2	E421/EO	0.050	µg/L		<0.050	----	----	----	----
Silicon, dissolved	7440-21-3	E421/EO	0.050	mg/L		2.34	----	----	----	----
Silver, dissolved	7440-22-4	E421/EO	0.010	µg/L		<0.010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/EO	0.050	mg/L		21.9	----	----	----	----
Strontium, dissolved	7440-24-6	E421/EO	0.00020	mg/L		0.0935	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/EO	0.50	mg/L		2.91	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/EO	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/EO	0.010	µg/L		<0.010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/EO	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/EO	0.010	µg/L		<0.010	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:20	----	----	----	----
						FC2600951-001	----	----	----	----
						Result	----	----	----	----
Dissolved Metals										
Vanadium, dissolved	7440-62-2	E421/EO	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/EO	0.0010	mg/L		<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/EO	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved metals filtration location	----	EP421/EO	-	-		Field	----	----	----	----
Aggregate Organics										
Naphthenic acids	----	E565/EO	1.0	mg/L		<1.0	----	----	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Ethylbenzene	100-41-4	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Styrene	100-42-5	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Toluene	108-88-3	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Xylene, m+p-	179601-23-1	E611A/EO	0.40	µg/L		<0.40	----	----	----	----
Xylene, o-	95-47-6	E611A/EO	0.30	µg/L		<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
BTEX, total	----	E611A/EO	1.0	µg/L		<1.0	----	----	----	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1/EO	100	µg/L		<100	----	----	----	----
F1-BTEX	----	EC580/EO	25	µg/L		<26	----	----	----	----
F2 (C10-C16)	----	E601/EO	100	µg/L		<100	----	----	----	----
F3 (C16-C34)	----	E601/EO	250	µg/L		<250	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
Client sampling date / time					11-May-2026 11:20	----	----	----	----
					FC2600951-001	----	----	----	----
					Result	----	----	----	----
Hydrocarbons									
F4 (C34-C50)	----	E601/EO	250	µg/L	<250	----	----	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581/EO	370	µg/L	<380	----	----	----	----
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/EO	1.0	%	103	----	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1/EO	1.0	%	105	----	----	----	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/EO	1.0	%	105	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/EO	1.0	%	101	----	----	----	----
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	83-32-9	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Acenaphthylene	208-96-8	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Acridine	260-94-6	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Anthracene	120-12-7	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Benz(a)anthracene	56-55-3	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Benzo(a)pyrene	50-32-8	E641A/EO	0.0050	µg/L	<0.0050	----	----	----	----
Benzo(b+j)fluoranthene	n/a	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Benzo(b+j+k)fluoranthene	n/a	E641A/EO	0.015	µg/L	<0.015	----	----	----	----
Benzo(e)pyrene	192-97-2	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Benzo(g,h,i)perylene	191-24-2	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Benzo(k)fluoranthene	207-08-9	E641A/EO	0.010	µg/L	<0.010	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
Client sampling date / time					11-May-2026 11:20	----	----	----	----
					FC2600951-001	----	----	----	----
					Result	----	----	----	----
Polycyclic Aromatic Hydrocarbons									
Chrysene	218-01-9	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Dibenz(a,h)anthracene	53-70-3	E641A/EO	0.0050	µg/L	<0.0050	----	----	----	----
Fluoranthene	206-44-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Fluorene	86-73-7	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Indeno(1,2,3-cd)pyrene	193-39-5	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Methylnaphthalene, 1-	90-12-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Methylnaphthalene, 1+2-	----	E641A/EO	0.015	µg/L	<0.015	----	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Naphthalene	91-20-3	E641A/EO	0.050	µg/L	<0.050	----	----	----	----
Perylene	198-55-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Phenanthrene	85-01-8	E641A/EO	0.020	µg/L	<0.020	----	----	----	----
Pyrene	129-00-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Quinoline	91-22-5	E641A/EO	0.050	µg/L	<0.050	----	----	----	----
B(a)P total potency equivalents [B(a)P TPE]	----	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates									
Chrysene-d12	1719-03-5	E641A/EO	0.1	%	113	----	----	----	----
Naphthalene-d8	1146-65-2	E641A/EO	0.1	%	109	----	----	----	----
Phenanthrene-d10	1517-22-2	E641A/EO	0.1	%	102	----	----	----	----
DIsinfectant By-Products									
Chlorate	14866-68-3	E409.CLO3/WT	0.010	mg/L	0.074	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ED-9150030-FORT CHIPEWYAN ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:20	----	----	----	----
						FC2600951-001	----	----	----	----
						Result	----	----	----	----
DIsinfectant By-Products										
Chlorite	14998-27-7	E409.CLO2/WT	0.010	mg/L		<0.010	----	----	----	----

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

CERTIFICATE OF ANALYSIS

Work Order	: **FC2600951**	Page	: 1 of 6
Amendment	: **1**		
Client	: **Regional Municipality of Wood Buffalo**	Laboratory	: ALS Environmental - Fort McMurray
Contact	: Water Treatment Plant	Account Manager	: Vishal Akolkar
Address	: 1 Silin Forest Road Fort Mcmurray AB Canada T9H 5A1	Address	: #4, 340 Macalpine Crescent Fort McMurray AB Canada T9H 4A8
Telephone	: 780-762-5863	Telephone	: +1 780 791 1524
Project	: Fort Chipewyan Table 1	Date Samples Received	: 12-May-2026 15:30
PO	: 4500068005	Date Analysis Commenced	: 13-May-2026
C-O-C number	: ----	Issue Date	: 23-May-2026 15:03
Sampler	: JH		
Site	: ----		
Quote number	: Water Treatment Plant		
No. of samples received	: 1		
No. of samples analysed	: 1		

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.

Signatories	*Position*	*Laboratory Department*
Alex Drake	Lab Analyst	Inorganics, Edmonton, Alberta
Alex Drake	Lab Analyst	Metals, Edmonton, Alberta
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Dan Nguyen	Team Leader - Inorganics	Metals, Edmonton, Alberta
Daniel Nguyen	Laboratory Analyst	Metals, Edmonton, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
Monica Ko	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
Shruti Mudliar	Lab Analyst	Inorganics, Edmonton, Alberta

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).
Measurement Uncertainty: The reported uncertainties in this report are expanded uncertainties calculated using a coverage factor of 2, which gives a level of confidence of approximately 95%.
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.

Unit	*Description*
-	no units
%	percent
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units
psu	practical salinity units

>: greater than.
<: less than.

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.

Workorder Comments

Amendment (23/05/2026): This report has been amended following changes to the analytical data reported. The quality system is being utilised to resolve this issue. The specific data affected includes Total Metals ...

Analytical Results

FC2600951-001

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: ED-9150030-FORT CHIPEWYAN
Client sampling date / time: 11-May-2026 11:20

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Physical Tests								
Alkalinity, bicarbonate (as HCO3)	71-52-3	83.0	1.2	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Alkalinity, carbonate (as CO3)	3812-32-6	<0.6	0.6	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Alkalinity, hydroxide (as OH)	14280-30-9	<0.3	0.3	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Alkalinity, total (as CaCO3)	----	68.0	1.0	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Conductivity	----	197	1.0	µS/cm	E100/EO	13-May-2026	13-May-2026	2588323
Hardness (as CaCO3), dissolved	----	52.7	0.50	mg/L	EC100/EO	-	14-May-2026	-
pH	----	8.28	0.10	pH units	E108/EO	13-May-2026	13-May-2026	2588322
Salinity	----	<1.0	1.0	psu	EC100S/VA	-	16-May-2026	-
Solids, total dissolved [TDS], calculated	----	111	1.0	mg/L	EC103/EO	-	14-May-2026	-
Anions and Nutrients								
Chloride	16887-00-6	15.2	0.50	mg/L	E235.Cl/EO	13-May-2026	13-May-2026	2588053
Fluoride	16984-48-8	0.037	0.020	mg/L	E235.F/EO	13-May-2026	13-May-2026	2588050
Nitrate (as N)	14797-55-8	0.105	0.020	mg/L	E235.NO3/EO	13-May-2026	13-May-2026	2588054
Nitrate + Nitrite (as N)	----	0.105	0.022	mg/L	EC235.N+N/EO	-	14-May-2026	-
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2/EO	13-May-2026	13-May-2026	2588051
Sulfate (as SO4)	14808-79-8	6.72	0.30	mg/L	E235.SO4/EO	13-May-2026	13-May-2026	2588052
Total Sulfides								
Sulfide, total (as S)	18496-25-8	0.0031	0.0015	mg/L	E395/CG	-	16-May-2026	2594980
Sulfide, total (as H2S)	7783-06-4	0.0033	0.0016	mg/L	E395/CG	-	16-May-2026	2594980
Metals								
Sodium adsorption ratio [SAR]	----	1.31	0.10	-	EC102A/EO	-	14-May-2026	-
Ion Balance								
Ion balance (cations/anions)	----	105	0.010	%	EC101/EO	-	14-May-2026	-
Total Metals								
Aluminum, total	7429-90-5	0.0240	0.0030	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Arsenic, total	7440-38-2	0.00017	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Barium, total	7440-39-3	0.0227	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Beryllium, total	7440-41-7	<0.020	0.020	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Bismuth, total	7440-69-9	<0.050	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Boron, total	7440-42-8	0.016	0.010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Cadmium, total	7440-43-9	<0.0050	0.0050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Calcium, total	7440-70-2	13.4	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Cesium, total	7440-46-2	<0.010	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Copper, total	7440-50-8	0.00067	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Lead, total	7439-92-1	<0.050	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Lithium, total	7439-93-2	0.0035	0.0010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Magnesium, total	7439-95-4	3.98	0.0050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Manganese, total	7439-96-5	0.0130	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Molybdenum, total	7439-98-7	0.302	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Nickel, total	7440-02-0	0.00064	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019

Analytical Results

FC2600951-001

Sub-Matrix: **Water**
(Matrix: **Water**)

Client sample ID: ED-9150030-FORT CHIPEWYAN
Client sampling date / time: 11-May-2026 11:20

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Total Metals								
Potassium, total	7440-09-7	1.19	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Rubidium, total	7440-17-7	0.00102	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Selenium, total	7782-49-2	<0.050	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Silicon, total	7440-21-3	2.40	0.10	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Silver, total	7440-22-4	<0.010	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Sodium, total	7440-23-5	22.1	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Strontium, total	7440-24-6	0.0910	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Sulfur, total	7704-34-9	2.92	0.50	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Thallium, total	7440-28-0	<0.010	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Uranium, total	7440-61-1	<0.010	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0250	0.0010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Arsenic, dissolved	7440-38-2	0.00017	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Barium, dissolved	7440-39-3	0.0235	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Beryllium, dissolved	7440-41-7	<0.020	0.020	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Bismuth, dissolved	7440-69-9	<0.050	0.050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Boron, dissolved	7440-42-8	0.016	0.010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Cadmium, dissolved	7440-43-9	0.0067	0.0050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Calcium, dissolved	7440-70-2	14.2	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Cesium, dissolved	7440-46-2	<0.010	0.010	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Copper, dissolved	7440-50-8	0.00061	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Iron, dissolved	7439-89-6	<0.010	0.010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Lead, dissolved	7439-92-1	<0.050	0.050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Lithium, dissolved	7439-93-2	0.0041	0.0010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Magnesium, dissolved	7439-95-4	4.19	0.0050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Manganese, dissolved	7439-96-5	0.0130	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Molybdenum, dissolved	7439-98-7	0.298	0.050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Nickel, dissolved	7440-02-0	0.00060	0.00050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Potassium, dissolved	7440-09-7	1.24	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Rubidium, dissolved	7440-17-7	0.00112	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Selenium, dissolved	7782-49-2	<0.050	0.050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Silicon, dissolved	7440-21-3	2.34	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Silver, dissolved	7440-22-4	<0.010	0.010	µg/L	E421/EO	13-May-2026	13-May-2026	2587293

Analytical Results

FC2600951-001
Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: ED-9150030-FORT CHIPEWYAN
Client sampling date / time: 11-May-2026 11:20

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Dissolved Metals								
Sodium, dissolved	7440-23-5	21.9	0.050	mg/L	E421/EO	13-May-2026	14-May-2026	2587293
Strontium, dissolved	7440-24-6	0.0935	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Sulfur, dissolved	7704-34-9	2.91	0.50	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Thallium, dissolved	7440-28-0	<0.010	0.010	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Uranium, dissolved	7440-61-1	<0.010	0.010	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Zirconium, dissolved	7440-67-7	<0.00020	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Dissolved metals filtration location	----	Field	-	-	EP421/EO	-	13-May-2026	2587293
Aggregate Organics								
Naphthenic acids	----	<1.0	1.0	mg/L	E565/EO	16-May-2026	20-May-2026	2594459
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Styrene	100-42-5	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Toluene	108-88-3	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Xylene, m+p-	179601-23-1	<0.40	0.40	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Xylene, o-	95-47-6	<0.30	0.30	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Xylenes, total	1330-20-7	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
BTEX, total	----	<1.0	1.0	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1/EO	19-May-2026	20-May-2026	2588654
F1-BTEX	----	<26	26	µg/L	EC580/EO	-	20-May-2026	-
F2 (C10-C16)	----	<100	100	µg/L	E601/EO	13-May-2026	13-May-2026	2587086
F3 (C16-C34)	----	<250	250	µg/L	E601/EO	13-May-2026	13-May-2026	2587086
F4 (C34-C50)	----	<250	250	µg/L	E601/EO	13-May-2026	13-May-2026	2587086
Hydrocarbons, total (C6-C50)	n/a	<380	380	µg/L	EC581/EO	-	14-May-2026	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	103	1.0	%	E601/EO	13-May-2026	13-May-2026	2587086
Dichlorotoluene, 3,4-	95-75-0	105	1.0	%	E581.F1/EO	19-May-2026	20-May-2026	2588654
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	105	1.0	%	E611A/EO	19-May-2026	20-May-2026	2588653
Difluorobenzene, 1,4-	540-36-3	101	1.0	%	E611A/EO	19-May-2026	20-May-2026	2588653
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Acridine	260-94-6	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087

Analytical Results

FC2600951-001

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: ED-9150030-FORT CHIPEWYAN
Client sampling date / time: 11-May-2026 11:20

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(e)pyrene	192-97-2	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Indeno(1,2,3-cd)pyrene	193-39-5	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Perylene	198-55-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	113	0.1	%	E641A/EO	13-May-2026	13-May-2026	2587087
Naphthalene-d8	1146-65-2	109	0.1	%	E641A/EO	13-May-2026	13-May-2026	2587087
Phenanthrene-d10	1517-22-2	102	0.1	%	E641A/EO	13-May-2026	13-May-2026	2587087
DIsinfectant By-Products								
Chlorate	14866-68-3	0.074	0.010	mg/L	E409.CLO3/WT	15-May-2026	15-May-2026	2592475
Chlorite	14998-27-7	<0.010	0.010	mg/L	E409.CLO2/WT	15-May-2026	15-May-2026	2592476

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

CERTIFICATE OF ANALYSIS

Work Order	: **FC2600950**		
Amendment	: **1**		
Client	: **Regional Municipality of Wood Buffalo**	Laboratory	: ALS Environmental - Fort McMurray
Contact	: Water Treatment Plant	Account Manager	: Vishal Akolkar
Address	: 1 Silin Forest Road Fort Mcmurray Alberta Canada T9H 5A1	Address	: #4, 340 Macalpine Crescent Fort McMurray AB Canada T9H 4A8
Telephone	: 780-762-5863	E-mail	: Vishal.Akolkar@alsglobal.com
Project	: Fort Chipewyan Table 1	Telephone	: +1 780 791 1524
PO	: 4500068005	Date Samples Received	: 12-May-2026 15:30
C-O-C number	: ----	Date Analysis Commenced	: 13-May-2026
Sampler	: JH	Issue Date	: 23-May-2026 15:07
Site	: ----		
Quote number	: Water Treatment Plant		
No. of samples received	: 1		
No. of samples analysed	: 1		

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.

Signatories	*Position*	*Laboratory Department*
Alex Drake	Lab Analyst	Metals, Edmonton, Alberta
Alex Drake	Lab Analyst	Inorganics, Edmonton, Alberta
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Dan Nguyen	Team Leader - Inorganics	Metals, Edmonton, Alberta
Daniel Nguyen	Laboratory Analyst	Metals, Edmonton, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
Monica Ko	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Shruti Mudliar	Lab Analyst	Inorganics, Edmonton, Alberta

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).

Unit	*Description*
-	no units
%	percent
mg/L	milligrams per litre
pH units	pH units
psu	practical salinity 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.

Workorder Comments

Amendment (23/05/2026): This report has been amended following changes to the analytical data reported. The quality system is being utilised to resolve this issue. The specific data affected includes Total Metals.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Raw Water Chamber Tap ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:10	----	----	----	----
						FC2600950-001	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290/EO	1.2	mg/L		56.5	----	----	----	----
Alkalinity, carbonate (as CO3)	3812-32-6	E290/EO	1.0	mg/L		<0.6	----	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/EO	1.0	mg/L		<0.3	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/EO	1.0	mg/L		46.3	----	----	----	----
Conductivity	----	E100/EO	1.0	µS/cm		124	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/EO	0.50	mg/L		52.9	----	----	----	----
pH	----	E108/EO	0.10	pH units		7.63	----	----	----	----
Salinity	----	EC100S/VA	1.0	psu		<1.0	----	----	----	----
Solids, total dissolved [TDS], calculated	----	EC103/EO	1.0	mg/L		74.0	----	----	----	----
Anions and Nutrients										
Chloride	16887-00-6	E235.Cl/EO	0.50	mg/L		5.19	----	----	----	----
Fluoride	16984-48-8	E235.F/EO	0.020	mg/L		0.057	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/EO	0.020	mg/L		0.102	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/EO	0.0032	mg/L		0.102	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/EO	0.010	mg/L		<0.010	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/EO	0.30	mg/L		6.99	----	----	----	----
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/CG	0.0015	mg/L		0.0236	----	----	----	----
Sulfide, total (as H2S)	7783-06-4	E395/CG	0.0016	mg/L		0.0251	----	----	----	----
Metals										
Sodium adsorption ratio [SAR]	----	EC102A/EO	0.10	-		0.35	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	Raw Water Chamber Tap ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:10	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		FC2600950-001	----	----	----	----
						Result	----	----	----	----
Ion Balance										
Ion balance (cations/anions)	----	EC101/EO	0.010	%		111	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/EO	0.0030	mg/L		0.124	----	----	----	----
Antimony, total	7440-36-0	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/EO	0.00010	mg/L		0.00037	----	----	----	----
Barium, total	7440-39-3	E420/EO	0.00010	mg/L		0.0249	----	----	----	----
Beryllium, total	7440-41-7	E420/EO	0.020	µg/L		<0.020	----	----	----	----
Bismuth, total	7440-69-9	E420/EO	0.050	µg/L		<0.050	----	----	----	----
Boron, total	7440-42-8	E420/EO	0.010	mg/L		0.017	----	----	----	----
Cadmium, total	7440-43-9	E420/EO	0.0050	µg/L		0.0069	----	----	----	----
Calcium, total	7440-70-2	E420/EO	0.050	mg/L		13.4	----	----	----	----
Cesium, total	7440-46-2	E420/EO	0.010	µg/L		0.021	----	----	----	----
Chromium, total	7440-47-3	E420/EO	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Copper, total	7440-50-8	E420/EO	0.00050	mg/L		0.00187	----	----	----	----
Iron, total	7439-89-6	E420/EO	0.010	mg/L		0.362	----	----	----	----
Lead, total	7439-92-1	E420/EO	0.050	µg/L		0.133	----	----	----	----
Lithium, total	7439-93-2	E420/EO	0.0010	mg/L		0.0041	----	----	----	----
Magnesium, total	7439-95-4	E420/EO	0.0050	mg/L		4.12	----	----	----	----
Manganese, total	7439-96-5	E420/EO	0.00010	mg/L		0.0194	----	----	----	----
Molybdenum, total	7439-98-7	E420/EO	0.050	µg/L		0.262	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Raw Water Chamber Tap ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:10	----	----	----	----
						FC2600950-001	----	----	----	----
						Result	----	----	----	----
Total Metals										
Nickel, total	7440-02-0	E420/EO	0.00050	mg/L		0.00077	----	----	----	----
Phosphorus, total	7723-14-0	E420/EO	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/EO	0.050	mg/L		1.25	----	----	----	----
Rubidium, total	7440-17-7	E420/EO	0.00020	mg/L		0.00131	----	----	----	----
Selenium, total	7782-49-2	E420/EO	0.050	µg/L		0.074	----	----	----	----
Silicon, total	7440-21-3	E420/EO	0.10	mg/L		2.82	----	----	----	----
Silver, total	7440-22-4	E420/EO	0.010	µg/L		<0.010	----	----	----	----
Sodium, total	7440-23-5	E420/EO	0.050	mg/L		5.95	----	----	----	----
Strontium, total	7440-24-6	E420/EO	0.00020	mg/L		0.0959	----	----	----	----
Sulfur, total	7704-34-9	E420/EO	0.50	mg/L		3.00	----	----	----	----
Tellurium, total	13494-80-9	E420/EO	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/EO	0.010	µg/L		<0.010	----	----	----	----
Thorium, total	7440-29-1	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/EO	0.00030	mg/L		0.00440	----	----	----	----
Tungsten, total	7440-33-7	E420/EO	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/EO	0.010	µg/L		0.137	----	----	----	----
Vanadium, total	7440-62-2	E420/EO	0.00050	mg/L		0.00057	----	----	----	----
Zinc, total	7440-66-6	E420/EO	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/EO	0.00020	mg/L		<0.00020	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Raw Water Chamber Tap ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:10	----	----	----	----
						FC2600950-001	----	----	----	----
						Result	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/EO	0.0010	mg/L		0.133	----	----	----	----
Antimony, dissolved	7440-36-0	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/EO	0.00010	mg/L		0.00034	----	----	----	----
Barium, dissolved	7440-39-3	E421/EO	0.00010	mg/L		0.0261	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/EO	0.020	µg/L		<0.020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/EO	0.050	µg/L		<0.050	----	----	----	----
Boron, dissolved	7440-42-8	E421/EO	0.010	mg/L		0.017	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/EO	0.0050	µg/L		0.0078	----	----	----	----
Calcium, dissolved	7440-70-2	E421/EO	0.050	mg/L		14.2	----	----	----	----
Cesium, dissolved	7440-46-2	E421/EO	0.010	µg/L		0.016	----	----	----	----
Chromium, dissolved	7440-47-3	E421/EO	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/EO	0.00020	mg/L		0.00186	----	----	----	----
Iron, dissolved	7439-89-6	E421/EO	0.010	mg/L		0.305	----	----	----	----
Lead, dissolved	7439-92-1	E421/EO	0.050	µg/L		0.110	----	----	----	----
Lithium, dissolved	7439-93-2	E421/EO	0.0010	mg/L		0.0045	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/EO	0.0050	mg/L		4.24	----	----	----	----
Manganese, dissolved	7439-96-5	E421/EO	0.00010	mg/L		0.0193	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/EO	0.050	µg/L		0.285	----	----	----	----
Nickel, dissolved	7440-02-0	E421/EO	0.00050	mg/L		0.00067	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/EO	0.050	mg/L		<0.050	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Raw Water Chamber Tap ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:10	----	----	----	----
					FC2600950-001	----	----	----	----	----
					Result	----	----	----	----	----
Dissolved Metals										
Potassium, dissolved	7440-09-7	E421/EO	0.050	mg/L		1.29	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/EO	0.00020	mg/L		0.00143	----	----	----	----
Selenium, dissolved	7782-49-2	E421/EO	0.050	µg/L		<0.050	----	----	----	----
Silicon, dissolved	7440-21-3	E421/EO	0.050	mg/L		2.76	----	----	----	----
Silver, dissolved	7440-22-4	E421/EO	0.010	µg/L		<0.010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/EO	0.050	mg/L		5.90	----	----	----	----
Strontium, dissolved	7440-24-6	E421/EO	0.00020	mg/L		0.0983	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/EO	0.50	mg/L		2.93	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/EO	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/EO	0.010	µg/L		<0.010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/EO	0.00030	mg/L		0.00580	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/EO	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/EO	0.010	µg/L		0.129	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/EO	0.00050	mg/L		0.00060	----	----	----	----
Zinc, dissolved	7440-66-6	E421/EO	0.0010	mg/L		0.0011	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/EO	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved metals filtration location	----	EP421/EO	-	-		Field	----	----	----	----
Aggregate Organics										
Naphthenic acids	----	E565/EO	1.0	mg/L		<1.0	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Raw Water Chamber Tap ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:10	----	----	----	----
					FC2600950-001	----	----	----	----	----
					Result	----	----	----	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Ethylbenzene	100-41-4	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Styrene	100-42-5	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Toluene	108-88-3	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
Xylene, m+p-	179601-23-1	E611A/EO	0.40	µg/L		<0.40	----	----	----	----
Xylene, o-	95-47-6	E611A/EO	0.30	µg/L		<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611A/EO	0.50	µg/L		<0.50	----	----	----	----
BTEX, total	----	E611A/EO	1.0	µg/L		<1.0	----	----	----	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1/EO	100	µg/L		<100	----	----	----	----
F1-BTEX	----	EC580/EO	25	µg/L		<26	----	----	----	----
F2 (C10-C16)	----	E601/EO	100	µg/L		<100	----	----	----	----
F3 (C16-C34)	----	E601/EO	250	µg/L		<250	----	----	----	----
F4 (C34-C50)	----	E601/EO	250	µg/L		<250	----	----	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581/EO	370	µg/L		<380	----	----	----	----
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/EO	1.0	%		100	----	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1/EO	1.0	%		109	----	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/EO	1.0	%		107	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/EO	1.0	%		103	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Raw Water Chamber Tap ----	----	----	----	----
					Client sampling date / time	11-May-2026 11:10	----	----	----	----
						FC2600950-001	----	----	----	----
						Result	----	----	----	----
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Acenaphthylene	208-96-8	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Acridine	260-94-6	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Anthracene	120-12-7	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Benz(a)anthracene	56-55-3	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Benzo(a)pyrene	50-32-8	E641A/EO	0.0050	µg/L		<0.0050	----	----	----	----
Benzo(b+j)fluoranthene	n/a	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Benzo(b+j+k)fluoranthene	n/a	E641A/EO	0.015	µg/L		<0.015	----	----	----	----
Benzo(e)pyrene	192-97-2	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Benzo(g,h,i)perylene	191-24-2	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Benzo(k)fluoranthene	207-08-9	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Chrysene	218-01-9	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Dibenz(a,h)anthracene	53-70-3	E641A/EO	0.0050	µg/L		<0.0050	----	----	----	----
Fluoranthene	206-44-0	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Fluorene	86-73-7	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Indeno(1,2,3-cd)pyrene	193-39-5	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Methylnaphthalene, 1-	90-12-0	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Methylnaphthalene, 1+2-	----	E641A/EO	0.015	µg/L		<0.015	----	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A/EO	0.010	µg/L		<0.010	----	----	----	----
Naphthalene	91-20-3	E641A/EO	0.050	µg/L		<0.050	----	----	----	----
Perylene	198-55-0	E641A/EO	0.010	µg/L		<0.010	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Raw Water Chamber Tap ----	----	----	----	----
Client sampling date / time					11-May-2026 11:10	----	----	----	----
					FC2600950-001	**----**	**----**	**----**	**----**
					Result	----	----	----	----
Polycyclic Aromatic Hydrocarbons									
Phenanthrene	85-01-8	E641A/EO	0.020	µg/L	<0.020	----	----	----	----
Pyrene	129-00-0	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Quinoline	91-22-5	E641A/EO	0.050	µg/L	<0.050	----	----	----	----
B(a)P total potency equivalents [B(a)P TPE]	----	E641A/EO	0.010	µg/L	<0.010	----	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates									
Chrysene-d12	1719-03-5	E641A/EO	0.1	%	115	----	----	----	----
Naphthalene-d8	1146-65-2	E641A/EO	0.1	%	105	----	----	----	----
Phenanthrene-d10	1517-22-2	E641A/EO	0.1	%	104	----	----	----	----
DIsinfectant By-Products									
Chlorate	14866-68-3	E409.CLO3/WT	0.010	mg/L	<0.010	----	----	----	----
Chlorite	14998-27-7	E409.CLO2/WT	0.010	mg/L	<0.010	----	----	----	----

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

CERTIFICATE OF ANALYSIS

Work Order	: **FC2600950**	Page	: 1 of 6
Amendment	: **1**		
Client	: **Regional Municipality of Wood Buffalo**	Laboratory	: ALS Environmental - Fort McMurray
Contact	: Water Treatment Plant	Account Manager	: Vishal Akolkar
Address	: 1 Silin Forest Road Fort Mcmurray AB Canada T9H 5A1	Address	: #4, 340 Macalpine Crescent Fort McMurray AB Canada T9H 4A8
Telephone	: 780-762-5863	Telephone	: +1 780 791 1524
Project	: Fort Chipewyan Table 1	Date Samples Received	: 12-May-2026 15:30
PO	: 4500068005	Date Analysis Commenced	: 13-May-2026
C-O-C number	: ----	Issue Date	: 23-May-2026 15:06
Sampler	: JH		
Site	: ----		
Quote number	: Water Treatment Plant		
No. of samples received	: 1		
No. of samples analysed	: 1		

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.

Signatories	*Position*	*Laboratory Department*
Alex Drake	Lab Analyst	Inorganics, Edmonton, Alberta
Alex Drake	Lab Analyst	Metals, Edmonton, Alberta
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Dan Nguyen	Team Leader - Inorganics	Metals, Edmonton, Alberta
Daniel Nguyen	Laboratory Analyst	Metals, Edmonton, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
Monica Ko	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Shruti Mudliar	Lab Analyst	Inorganics, Edmonton, Alberta

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).
Measurement Uncertainty: The reported uncertainties in this report are expanded uncertainties calculated using a coverage factor of 2, which gives a level of confidence of approximately 95%.
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.

Unit	*Description*
-	no units
%	percent
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units
psu	practical salinity units

>: greater than.
<: less than.

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.

Workorder Comments

Amendment (23/05/2026): This report has been amended following changes to the analytical data reported. The quality system is being utilised to resolve this issue. The specific data affected includes Total Metals.

Analytical Results

FC2600950-001

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Raw Water Chamber Tap
Client sampling date / time: 11-May-2026 11:10

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Physical Tests								
Alkalinity, bicarbonate (as HCO3)	71-52-3	56.5	1.2	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Alkalinity, carbonate (as CO3)	3812-32-6	<0.6	0.6	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Alkalinity, hydroxide (as OH)	14280-30-9	<0.3	0.3	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Alkalinity, total (as CaCO3)	----	46.3	1.0	mg/L	E290/EO	13-May-2026	13-May-2026	2588324
Conductivity	----	124	1.0	µS/cm	E100/EO	13-May-2026	13-May-2026	2588323
Hardness (as CaCO3), dissolved	----	52.9	0.50	mg/L	EC100/EO	-	14-May-2026	-
pH	----	7.63	0.10	pH units	E108/EO	13-May-2026	13-May-2026	2588322
Salinity	----	<1.0	1.0	psu	EC100S/VA	-	16-May-2026	-
Solids, total dissolved [TDS], calculated	----	74.0	1.0	mg/L	EC103/EO	-	14-May-2026	-
Anions and Nutrients								
Chloride	16887-00-6	5.19	0.50	mg/L	E235.Cl/EO	13-May-2026	13-May-2026	2588053
Fluoride	16984-48-8	0.057	0.020	mg/L	E235.F/EO	13-May-2026	13-May-2026	2588050
Nitrate (as N)	14797-55-8	0.102	0.020	mg/L	E235.NO3/EO	13-May-2026	13-May-2026	2588054
Nitrate + Nitrite (as N)	----	0.102	0.022	mg/L	EC235.N+N/EO	-	14-May-2026	-
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2/EO	13-May-2026	13-May-2026	2588051
Sulfate (as SO4)	14808-79-8	6.99	0.30	mg/L	E235.SO4/EO	13-May-2026	13-May-2026	2588052
Total Sulfides								
Sulfide, total (as S)	18496-25-8	0.0236	0.0015	mg/L	E395/CG	-	16-May-2026	2594980
Sulfide, total (as H2S)	7783-06-4	0.0251	0.0016	mg/L	E395/CG	-	16-May-2026	2594980
Metals								
Sodium adsorption ratio [SAR]	----	0.35	0.10	-	EC102A/EO	-	14-May-2026	-
Ion Balance								
Ion balance (cations/anions)	----	111	0.010	%	EC101/EO	-	14-May-2026	-
Total Metals								
Aluminum, total	7429-90-5	0.124	0.0030	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Arsenic, total	7440-38-2	0.00037	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Barium, total	7440-39-3	0.0249	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Beryllium, total	7440-41-7	<0.020	0.020	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Bismuth, total	7440-69-9	<0.050	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Boron, total	7440-42-8	0.017	0.010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Cadmium, total	7440-43-9	0.0069	0.0050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Calcium, total	7440-70-2	13.4	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Cesium, total	7440-46-2	0.021	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Copper, total	7440-50-8	0.00187	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Iron, total	7439-89-6	0.362	0.010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Lead, total	7439-92-1	0.133	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Lithium, total	7439-93-2	0.0041	0.0010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Magnesium, total	7439-95-4	4.12	0.0050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Manganese, total	7439-96-5	0.0194	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Molybdenum, total	7439-98-7	0.262	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Nickel, total	7440-02-0	0.00077	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019

Analytical Results

FC2600950-001

Sub-Matrix: **Water**
(Matrix: **Water**)

Client sample ID: Raw Water Chamber Tap
Client sampling date / time: 11-May-2026 11:10

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Total Metals								
Potassium, total	7440-09-7	1.25	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Rubidium, total	7440-17-7	0.00131	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Selenium, total	7782-49-2	0.074	0.050	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Silicon, total	7440-21-3	2.82	0.10	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Silver, total	7440-22-4	<0.010	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Sodium, total	7440-23-5	5.95	0.050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Strontium, total	7440-24-6	0.0959	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Sulfur, total	7704-34-9	3.00	0.50	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Thallium, total	7440-28-0	<0.010	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Titanium, total	7440-32-6	0.00440	0.00030	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Uranium, total	7440-61-1	0.137	0.010	µg/L	E420/EO	13-May-2026	23-May-2026	2587019
Vanadium, total	7440-62-2	0.00057	0.00050	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420/EO	13-May-2026	23-May-2026	2587019
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.133	0.0010	mg/L	E421/EO	13-May-2026	14-May-2026	2587293
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Arsenic, dissolved	7440-38-2	0.00034	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Barium, dissolved	7440-39-3	0.0261	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Beryllium, dissolved	7440-41-7	<0.020	0.020	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Bismuth, dissolved	7440-69-9	<0.050	0.050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Boron, dissolved	7440-42-8	0.017	0.010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Cadmium, dissolved	7440-43-9	0.0078	0.0050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Calcium, dissolved	7440-70-2	14.2	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Cesium, dissolved	7440-46-2	0.016	0.010	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Copper, dissolved	7440-50-8	0.00186	0.00020	mg/L	E421/EO	13-May-2026	14-May-2026	2587293
Iron, dissolved	7439-89-6	0.305	0.010	mg/L	E421/EO	13-May-2026	14-May-2026	2587293
Lead, dissolved	7439-92-1	0.110	0.050	µg/L	E421/EO	13-May-2026	14-May-2026	2587293
Lithium, dissolved	7439-93-2	0.0045	0.0010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Magnesium, dissolved	7439-95-4	4.24	0.0050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Manganese, dissolved	7439-96-5	0.0193	0.00010	mg/L	E421/EO	13-May-2026	14-May-2026	2587293
Molybdenum, dissolved	7439-98-7	0.285	0.050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Nickel, dissolved	7440-02-0	0.00067	0.00050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Potassium, dissolved	7440-09-7	1.29	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Rubidium, dissolved	7440-17-7	0.00143	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Selenium, dissolved	7782-49-2	<0.050	0.050	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Silicon, dissolved	7440-21-3	2.76	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Silver, dissolved	7440-22-4	<0.010	0.010	µg/L	E421/EO	13-May-2026	13-May-2026	2587293

Analytical Results

FC2600950-001

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Raw Water Chamber Tap
Client sampling date / time: 11-May-2026 11:10

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Dissolved Metals								
Sodium, dissolved	7440-23-5	5.90	0.050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Strontium, dissolved	7440-24-6	0.0983	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Sulfur, dissolved	7704-34-9	2.93	0.50	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Thallium, dissolved	7440-28-0	<0.010	0.010	µg/L	E421/EO	13-May-2026	13-May-2026	2587293
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Titanium, dissolved	7440-32-6	0.00580	0.00030	mg/L	E421/EO	13-May-2026	14-May-2026	2587293
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Uranium, dissolved	7440-61-1	0.129	0.010	µg/L	E421/EO	13-May-2026	14-May-2026	2587293
Vanadium, dissolved	7440-62-2	0.00060	0.00050	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Zinc, dissolved	7440-66-6	0.0011	0.0010	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Zirconium, dissolved	7440-67-7	<0.00020	0.00020	mg/L	E421/EO	13-May-2026	13-May-2026	2587293
Dissolved metals filtration location	----	Field	-	-	EP421/EO	-	13-May-2026	2587293
Aggregate Organics								
Naphthenic acids	----	<1.0	1.0	mg/L	E565/EO	16-May-2026	20-May-2026	2594459
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Styrene	100-42-5	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Toluene	108-88-3	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Xylene, m+p-	179601-23-1	<0.40	0.40	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Xylene, o-	95-47-6	<0.30	0.30	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Xylenes, total	1330-20-7	<0.50	0.50	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
BTEX, total	----	<1.0	1.0	µg/L	E611A/EO	19-May-2026	20-May-2026	2588653
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1/EO	19-May-2026	20-May-2026	2588654
F1-BTEX	----	<26	26	µg/L	EC580/EO	-	20-May-2026	-
F2 (C10-C16)	----	<100	100	µg/L	E601/EO	13-May-2026	13-May-2026	2587086
F3 (C16-C34)	----	<250	250	µg/L	E601/EO	13-May-2026	13-May-2026	2587086
F4 (C34-C50)	----	<250	250	µg/L	E601/EO	13-May-2026	13-May-2026	2587086
Hydrocarbons, total (C6-C50)	n/a	<380	380	µg/L	EC581/EO	-	14-May-2026	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	100	1.0	%	E601/EO	13-May-2026	13-May-2026	2587086
Dichlorotoluene, 3,4-	95-75-0	109	1.0	%	E581.F1/EO	19-May-2026	20-May-2026	2588654
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	107	1.0	%	E611A/EO	19-May-2026	20-May-2026	2588653
Difluorobenzene, 1,4-	540-36-3	103	1.0	%	E611A/EO	19-May-2026	20-May-2026	2588653
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Acridine	260-94-6	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087

Analytical Results

FC2600950-001

Sub-Matrix:**Water**
(Matrix: **Water**)

Client sample ID: Raw Water Chamber Tap
Client sampling date / time: 11-May-2026 11:10

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(e)pyrene	192-97-2	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Indeno(1,2,3-cd)pyrene	193-39-5	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Perylene	198-55-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A/EO	13-May-2026	13-May-2026	2587087
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	115	0.1	%	E641A/EO	13-May-2026	13-May-2026	2587087
Naphthalene-d8	1146-65-2	105	0.1	%	E641A/EO	13-May-2026	13-May-2026	2587087
Phenanthrene-d10	1517-22-2	104	0.1	%	E641A/EO	13-May-2026	13-May-2026	2587087
DIsinfectant By-Products								
Chlorate	14866-68-3	<0.010	0.010	mg/L	E409.CLO3/WT	15-May-2026	15-May-2026	2592475
Chlorite	14998-27-7	<0.010	0.010	mg/L	E409.CLO2/WT	15-May-2026	15-May-2026	2592476

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