

CERTIFICATE OF ANALYSIS

Work Order	: FC2600027		
Client	: Regional Municipality of Wood Buffalo	Laboratory	: ALS Environmental - Fort McMurray
Contact	: Water Treatment Plant	Account Manager	: Megha Walia
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	: Megha.Walia@alsglobal.com
Project	: Fort Chipewyan Table 1	Telephone	: +1 780 791 1524
PO	: 4500061478	Date Samples Received	: 05-Jan-2026 15:15
C-O-C number	: ----	Date Analysis Commenced	: 06-Jan-2026
Sampler	: TSP	Issue Date	: 14-Jan-2026 18:36
Site	: ----		
Quote number	: Water Treatment Plant		
No. of samples received	: 2		
No. of samples analysed	: 2		

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>
Alex Drake	Lab Analyst	Inorganics, Edmonton, Alberta
Alex Drake	Lab Analyst	Metals, Edmonton, Alberta
Brayden Ginther	Laboratory Analyst	Metals, Edmonton, Alberta
Daniel Nguyen	Laboratory Analyst	Metals, Edmonton, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
John Tang	Lab Analyst	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
Yan Zhang	Team Leader - Organics	Organics, 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

CORRECTION / UPDATE TO DUE DATE



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Client sample ID					Treated Water ----	Raw Water Chamber Tap ----	----	----	----
Client sampling date / time					05-Jan-2026 08:30	05-Jan-2026 08:38	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2600027-001	FC2600027-002	----	----	----
					Result	Result	----	----	----
Physical Tests									
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	E290/EO	1.2	mg/L	64.8	45.0	----	----	----
Alkalinity, carbonate (as CO ₃)	3812-32-6	E290/EO	1.0	mg/L	<0.6	<0.6	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/EO	1.0	mg/L	<0.3	<0.3	----	----	----
Alkalinity, total (as CaCO ₃)	----	E290/EO	1.0	mg/L	53.1	36.9	----	----	----
Conductivity	----	E100/EO	1.0	µS/cm	160	102	----	----	----
Hardness (as CaCO ₃), dissolved	----	EC100/EO	0.50	mg/L	42.8	41.0	----	----	----
pH	----	E108/EO	0.10	pH units	8.16	7.48	----	----	----
Salinity	----	EC100S/VA	1.0	psu	<1.0	<1.0	----	----	----
Solids, total dissolved [TDS], calculated	----	EC103/EO	1.0	mg/L	89.0	59.3	----	----	----
Anions and Nutrients									
Chloride	16887-00-6	E235.Cl/EO	0.50	mg/L	13.4	4.26	----	----	----
Fluoride	16984-48-8	E235.F/EO	0.020	mg/L	0.034	0.056	----	----	----
Nitrate (as N)	14797-55-8	E235.NO ₃ /EO	0.020	mg/L	0.058	0.046	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/EO	0.0032	mg/L	0.0580	0.0460	----	----	----
Nitrite (as N)	14797-65-0	E235.NO ₂ /EO	0.010	mg/L	<0.010	<0.010	----	----	----
Sulfate (as SO ₄)	14808-79-8	E235.SO ₄ /EO	0.30	mg/L	5.96	5.49	----	----	----
Total Sulfides									
Sulfide, total (as S)	18496-25-8	E395/CG	0.0015	mg/L	<0.0015	<0.0015	----	----	----
Sulfide, total (as H ₂ S)	7783-06-4	E395/CG	0.0016	mg/L	<0.0016	<0.0016	----	----	----
Metals									
Sodium adsorption ratio [SAR]	----	EC102A/EO	0.10	-	1.06	0.26	----	----	----



Analytical Results

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 (Matrix: Water)

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Client sampling date / time					05-Jan-2026 08:30	05-Jan-2026 08:38	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2600027-001	FC2600027-002	----	----	----
					Result	Result	----	----	----
Ion Balance									
Ion balance (cations/anions)	----	EC101/EO	0.010	%	100	107	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/EO	0.0030	mg/L	0.0116	0.214	----	----	----
Antimony, total	7440-36-0	E420/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/EO	0.00010	mg/L	0.00013	0.00034	----	----	----
Barium, total	7440-39-3	E420/EO	0.00010	mg/L	0.0187	0.0214	----	----	----
Beryllium, total	7440-41-7	E420/EO	0.000020	mg/L	<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/EO	0.000050	mg/L	<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/EO	0.010	mg/L	0.015	0.015	----	----	----
Cadmium, total	7440-43-9	E420/EO	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/EO	0.050	mg/L	11.1	10.4	----	----	----
Cesium, total	7440-46-2	E420/EO	0.000010	mg/L	<0.000010	0.000035	----	----	----
Chromium, total	7440-47-3	E420/EO	0.00050	mg/L	<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/EO	0.00050	mg/L	0.00056	0.00162	----	----	----
Iron, total	7439-89-6	E420/EO	0.010	mg/L	<0.010	0.306	----	----	----
Lead, total	7439-92-1	E420/EO	0.000050	mg/L	<0.000050	0.000153	----	----	----
Lithium, total	7439-93-2	E420/EO	0.0010	mg/L	0.0029	0.0032	----	----	----
Magnesium, total	7439-95-4	E420/EO	0.0050	mg/L	3.27	3.23	----	----	----
Manganese, total	7439-96-5	E420/EO	0.00010	mg/L	0.00481	0.0111	----	----	----
Molybdenum, total	7439-98-7	E420/EO	0.000050	mg/L	0.000234	0.000250	----	----	----



Analytical Results

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 (Matrix: Water)

					Client sample ID	Treated Water ----	Raw Water Chamber Tap ----	----	----	----
Client sampling date / time						05-Jan-2026 08:30	05-Jan-2026 08:38	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2600027-001	FC2600027-002	----	----	----	----
					Result	Result	----	----	----	----
Total Metals										
Nickel, total	7440-02-0	E420/EO	0.00050	mg/L	<0.00050	0.00061	----	----	----	----
Phosphorus, total	7723-14-0	E420/EO	0.050	mg/L	<0.050	<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/EO	0.050	mg/L	0.977	1.02	----	----	----	----
Rubidium, total	7440-17-7	E420/EO	0.00020	mg/L	0.00094	0.00128	----	----	----	----
Selenium, total	7782-49-2	E420/EO	0.000050	mg/L	<0.000050	0.000057	----	----	----	----
Silicon, total	7440-21-3	E420/EO	0.10	mg/L	2.16	2.82	----	----	----	----
Silver, total	7440-22-4	E420/EO	0.000010	mg/L	<0.000010	<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/EO	0.050	mg/L	15.5	3.79	----	----	----	----
Strontium, total	7440-24-6	E420/EO	0.00020	mg/L	0.0727	0.0760	----	----	----	----
Sulfur, total	7704-34-9	E420/EO	0.50	mg/L	2.07	2.16	----	----	----	----
Tellurium, total	13494-80-9	E420/EO	0.00020	mg/L	<0.00020	<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/EO	0.000010	mg/L	<0.000010	<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/EO	0.00030	mg/L	<0.00030	0.00598	----	----	----	----
Tungsten, total	7440-33-7	E420/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/EO	0.000010	mg/L	<0.000010	0.000087	----	----	----	----
Vanadium, total	7440-62-2	E420/EO	0.00050	mg/L	<0.00050	0.00081	----	----	----	----
Zinc, total	7440-66-6	E420/EO	0.0030	mg/L	<0.0030	<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/EO	0.00020	mg/L	<0.00020	0.00028	----	----	----	----



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Client sampling date / time					05-Jan-2026 08:30	05-Jan-2026 08:38	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2600027-001	FC2600027-002	----	----	----
					Result	Result	----	----	----
Dissolved Metals									
Dissolved metals filtration location	----	EP421/EO	-	-	Field	Field	----	----	----
Aggregate Organics									
Naphthenic acids	----	E565/EO	1.0	mg/L	<1.0	<1.0	----	----	----
Volatile Organic Compounds [Fuels]									
Benzene	71-43-2	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----
Ethylbenzene	100-41-4	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----
Styrene	100-42-5	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----
Toluene	108-88-3	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----
Xylene, m+p-	179601-23-1	E611A/EO	0.40	µg/L	<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611A/EO	0.30	µg/L	<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----
BTEX, total	----	E611A/EO	1.0	µg/L	<1.0	<1.0	----	----	----
Hydrocarbons									
F1 (C6-C10)	----	E581.F1/EO	100	µg/L	<100	<100	----	----	----
F1-BTEX	----	EC580/EO	25	µg/L	<100	<100	----	----	----
F2 (C10-C16)	----	E601/EO	100	µg/L	<100	<100	----	----	----
F3 (C16-C34)	----	E601/EO	250	µg/L	<250	<250	----	----	----
F4 (C34-C50)	----	E601/EO	250	µg/L	<250	<250	----	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581/EO	370	µg/L	<380	<380	----	----	----
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/EO	1.0	%	104	104	----	----	----



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Analyte	CAS Number	Method/Lab	LOR	Unit	FC2600027-001	FC2600027-002	----	----	----
					Result	Result	----	----	----
Hydrocarbons Surrogates									
Dichlorotoluene, 3,4-	95-75-0	E581.F1/EO	1.0	%	123	123	----	----	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/EO	1.0	%	94.8	94.2	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/EO	1.0	%	96.5	99.9	----	----	----
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	83-32-9	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Acenaphthylene	208-96-8	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Acridine	260-94-6	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Anthracene	120-12-7	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Benz(a)anthracene	56-55-3	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Benzo(a)pyrene	50-32-8	E641A/EO	0.0050	µg/L	<0.0050	<0.0050	----	----	----
Benzo(b+j)fluoranthene	n/a	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Benzo(b+j+k)fluoranthene	n/a	E641A/EO	0.015	µg/L	<0.015	<0.015	----	----	----
Benzo(e)pyrene	192-97-2	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Benzo(g,h,i)perylene	191-24-2	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Benzo(k)fluoranthene	207-08-9	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Chrysene	218-01-9	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Dibenz(a,h)anthracene	53-70-3	E641A/EO	0.0050	µg/L	<0.0050	<0.0050	----	----	----
Fluoranthene	206-44-0	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Fluorene	86-73-7	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----



Analytical Results

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					Client sample ID	Treated Water ----	Raw Water Chamber Tap ----	----	----	----
Client sampling date / time						05-Jan-2026 08:30	05-Jan-2026 08:38	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	FC2600027-001	FC2600027-002	----	----	----	----
					Result	Result	----	----	----	----
Polycyclic Aromatic Hydrocarbons										
Methylnaphthalene, 1-	90-12-0	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----	----
Methylnaphthalene, 1+2-	----	E641A/EO	0.015	µg/L	<0.015	<0.015	----	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----	----
Naphthalene	91-20-3	E641A/EO	0.050	µg/L	<0.050	<0.050	----	----	----	----
Perylene	198-55-0	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----	----
Phenanthrene	85-01-8	E641A/EO	0.020	µg/L	<0.020	<0.020	----	----	----	----
Pyrene	129-00-0	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----	----
Quinoline	91-22-5	E641A/EO	0.050	µg/L	<0.050	<0.050	----	----	----	----
B(a)P total potency equivalents [B(a)P TPE]	----	E641A/EO	0.010	µg/L	<0.010	<0.010	----	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/EO	0.1	%	98.3	97.8	----	----	----	----
Naphthalene-d8	1146-65-2	E641A/EO	0.1	%	107	95.8	----	----	----	----
Phenanthrene-d10	1517-22-2	E641A/EO	0.1	%	103	103	----	----	----	----
Disinfectant By-Products										
Chlorate	14866-68-3	E409.CLO3/WT	0.010	mg/L	0.062	<0.010	----	----	----	----
Chlorite	14998-27-7	E409.CLO2/WT	0.010	mg/L	<0.010	<0.010	----	----	----	----

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