



CERTIFICATE OF ANALYSIS

Work Order : **FC2402530**
Amendment : **1**
Client : **Regional Municipality of Wood Buffalo**
Contact : Water Treatment Plant
Address : 1 Silin Forest Road
 Fort McMurray Alberta Canada T9H 5A1
Telephone : 780-762-5863
Project : ----
PO : 4500055977
C-O-C number : ----
Sampler : RP
Site : ----
Quote number : FC24-RMWB100-0005 FC SC4
No. of samples received : 2
No. of samples analysed : 2

Laboratory : ALS Environmental - Calgary
Account Manager : Megan Trydal
Address : 2559 29th Street NE
 Calgary AB Canada T1Y 7B5
Telephone : +1 403 407 1800
Date Samples Received : 16-Sep-2024 15:15
Date Analysis Commenced : 17-Sep-2024
Issue Date : 04-Oct-2024 10:04

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
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Brayden Ginther	Laboratory Analyst	Metals, Edmonton, Alberta
Dan Nguyen	Team Leader - Inorganics	Metals, Edmonton, Alberta
Daniel Nguyen	Laboratory Analyst	Metals, Edmonton, Alberta
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
Monica Ko	Lab Assistant	Inorganics, Burnaby, British Columbia
Ping Yeung	Team Leader - Inorganics	Metals, Edmonton, Alberta
Ping Yeung	Team Leader - Inorganics	Inorganics, Edmonton, Alberta
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).

<i>Unit</i>	<i>Description</i>
mg/L	milligrams per litre
µg/L	micrograms per litre
psu	practical salinity units
pH units	pH units
µS/cm	microsiemens per centimetre
-	no units
meq/L	milliequivalents per litre
%	percent

<: 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.





Analytical Results

				Client sample ID	TREATED WATER	RAW WATER CHAMBER TAP	----	----	----
Sub-Matrix: Water (Matrix: Water)				Client sampling date / time	16-Sep-2024 09:20	16-Sep-2024 09:00	----	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----
					Result	Result	----	----	----
Physical Tests									
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290/EO	1.0	mg/L	78.2	69.5	----	----	----
Alkalinity, carbonate (as CO3)	3812-32-6	E290/EO	1.0	mg/L	1.1	<1.0	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/EO	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/EO	1.0	mg/L	65.9	57.0	----	----	----
Conductivity	----	E100/EO	1.0	µS/cm	217	146	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/EO	0.50	mg/L	59.4	55.1	----	----	----
pH	----	E108/EO	0.10	pH units	8.38	8.02	----	----	----
Salinity	----	EC100S/VA	1.0	psu	<1.0	<1.0	----	----	----
Solids, total dissolved [TDS], calculated	----	EC103/EO	1.0	mg/L	115	78.8	----	----	----
Anions and Nutrients									
Chloride	16887-00-6	E235.Cl/EO	0.50	mg/L	21.9	4.95	----	----	----
Fluoride	16984-48-8	E235.F/EO	0.020	mg/L	0.035	0.077	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/EO	0.020	mg/L	<0.020	<0.020	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/E O	0.0300	mg/L	<0.0300	<0.0300	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/EO	0.010	mg/L	<0.010	<0.010	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/EO	0.30	mg/L	9.98	10.4	----	----	----
Total Sulfides									
Sulfide, total (as S)	18496-25-8	E395/CG	0.0015	mg/L	0.0140	0.0765	----	----	----
Sulfide, total (as H2S)	7783-06-4	E395/CG	0.0016	mg/L	0.0149	0.0814	----	----	----
Ion Balance									
Anion sum	----	EC101/EO	0.10	meq/L	2.14	1.50	----	----	----



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	TREATED WATER	RAW WATER CHAMBER TAP	----	----	----
					Client sampling date / time	16-Sep-2024 09:20	16-Sep-2024 09:00	----	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----	
					Result	Result	----	----	----	
Ion Balance										
Cation sum	----	EC101/EO	0.10	meq/L	2.01	1.37	----	----	----	
Ion balance (APHA)	----	EC101/EO	0.01	%	-3.13	-4.53	----	----	----	
Ion balance (cations/anions)	----	EC101/EO	0.010	%	93.9	91.3	----	----	----	
Total Metals										
Aluminum, total	7429-90-5	E420/EO	0.0030	mg/L	0.0265	0.0251	----	----	----	
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	0.00038	0.00044	----	----	----	
Barium, total	7440-39-3	E420/EO	0.00010	mg/L	0.0304	0.0307	----	----	----	
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	0.018	0.018	----	----	----	
Cadmium, total	7440-43-9	E420/EO	0.0000050	mg/L	<0.0000050	0.0000064	----	----	----	
Calcium, total	7440-70-2	E420/EO	0.050	mg/L	16.4	16.1	----	----	----	
Cesium, total	7440-46-2	E420/EO	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
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	0.00132	0.00189	----	----	----	
Iron, total	7439-89-6	E420/EO	0.010	mg/L	<0.010	0.054	----	----	----	
Lead, total	7439-92-1	E420/EO	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Lithium, total	7439-93-2	E420/EO	0.0010	mg/L	0.0036	0.0037	----	----	----	
Magnesium, total	7439-95-4	E420/EO	0.0050	mg/L	4.56	4.62	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	TREATED WATER	RAW WATER CHAMBER TAP	----	----	----
					Client sampling date / time	16-Sep-2024 09:20	16-Sep-2024 09:00	----	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----	
					Result	Result	----	----	----	
Total Metals										
Manganese, total	7439-96-5	E420/EO	0.00010	mg/L	0.00092	0.00318	----	----	----	
Molybdenum, total	7439-98-7	E420/EO	0.000050	mg/L	0.000416	0.000467	----	----	----	
Nickel, total	7440-02-0	E420/EO	0.00050	mg/L	0.00050	0.00092	----	----	----	
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	1.11	1.11	----	----	----	
Rubidium, total	7440-17-7	E420/EO	0.00020	mg/L	0.00121	0.00132	----	----	----	
Selenium, total	7782-49-2	E420/EO	0.000050	mg/L	0.000071	0.000104	----	----	----	
Silicon, total	7440-21-3	E420/EO	0.10	mg/L	1.24	1.32	----	----	----	
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	19.6	5.88	----	----	----	
Strontium, total	7440-24-6	E420/EO	0.00020	mg/L	0.0996	0.101	----	----	----	
Sulfur, total	7704-34-9	E420/EO	0.50	mg/L	3.22	3.38	----	----	----	
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	0.00018	0.00029	----	----	----	
Titanium, total	7440-32-6	E420/EO	0.00030	mg/L	<0.00030	0.00052	----	----	----	
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	0.000129	----	----	----	
Vanadium, total	7440-62-2	E420/EO	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Zinc, total	7440-66-6	E420/EO	0.0030	mg/L	<0.0030	<0.0030	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	TREATED WATER	RAW WATER CHAMBER TAP	----	----	----
					Client sampling date / time	16-Sep-2024 09:20	16-Sep-2024 09:00	----	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----	
					Result	Result	----	----	----	
Total Metals										
Zirconium, total	7440-67-7	E420/EO	0.00020	mg/L	<0.00020	<0.00020	----	----	----	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/EO	0.0010	mg/L	0.0221	0.0234	----	----	----	
Antimony, dissolved	7440-36-0	E421/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Arsenic, dissolved	7440-38-2	E421/EO	0.00010	mg/L	0.00037	0.00044	----	----	----	
Barium, dissolved	7440-39-3	E421/EO	0.00010	mg/L	0.0306	0.0306	----	----	----	
Beryllium, dissolved	7440-41-7	E421/EO	0.000020	mg/L	<0.000020	<0.000020	----	----	----	
Bismuth, dissolved	7440-69-9	E421/EO	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Boron, dissolved	7440-42-8	E421/EO	0.010	mg/L	0.016	0.017	----	----	----	
Cadmium, dissolved	7440-43-9	E421/EO	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----	
Calcium, dissolved	7440-70-2	E421/EO	0.050	mg/L	16.2	14.5	----	----	----	
Cesium, dissolved	7440-46-2	E421/EO	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
Chromium, dissolved	7440-47-3	E421/EO	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Cobalt, dissolved	7440-48-4	E421/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Copper, dissolved	7440-50-8	E421/EO	0.00020	mg/L	0.00107	0.00172	----	----	----	
Iron, dissolved	7439-89-6	E421/EO	0.010	mg/L	<0.010	0.052	----	----	----	
Lead, dissolved	7439-92-1	E421/EO	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Lithium, dissolved	7439-93-2	E421/EO	0.0010	mg/L	0.0036	0.0042	----	----	----	
Magnesium, dissolved	7439-95-4	E421/EO	0.0050	mg/L	4.59	4.59	----	----	----	
Manganese, dissolved	7439-96-5	E421/EO	0.00010	mg/L	0.00084	0.00300	----	----	----	
Molybdenum, dissolved	7439-98-7	E421/EO	0.000050	mg/L	0.000394	0.000442	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	TREATED WATER	RAW WATER CHAMBER TAP	----	----	----
					Client sampling date / time	16-Sep-2024 09:20	16-Sep-2024 09:00	----	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----	
					Result	Result	----	----	----	
Dissolved Metals										
Nickel, dissolved	7440-02-0	E421/EO	0.00050	mg/L	<0.00050	0.00066	----	----	----	
Phosphorus, dissolved	7723-14-0	E421/EO	0.050	mg/L	<0.050	<0.050	----	----	----	
Potassium, dissolved	7440-09-7	E421/EO	0.050	mg/L	1.10	1.08	----	----	----	
Rubidium, dissolved	7440-17-7	E421/EO	0.00020	mg/L	0.00124	0.00121	----	----	----	
Selenium, dissolved	7782-49-2	E421/EO	0.000050	mg/L	0.000057	0.000087	----	----	----	
Silicon, dissolved	7440-21-3	E421/EO	0.050	mg/L	1.18	1.27	----	----	----	
Silver, dissolved	7440-22-4	E421/EO	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
Sodium, dissolved	7440-23-5	E421/EO	0.050	mg/L	18.3	5.52	----	----	----	
Strontium, dissolved	7440-24-6	E421/EO	0.00020	mg/L	0.0930	0.0962	----	----	----	
Sulfur, dissolved	7704-34-9	E421/EO	0.50	mg/L	3.48	3.57	----	----	----	
Tellurium, dissolved	13494-80-9	E421/EO	0.00020	mg/L	<0.00020	<0.00020	----	----	----	
Thallium, dissolved	7440-28-0	E421/EO	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
Thorium, dissolved	7440-29-1	E421/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Tin, dissolved	7440-31-5	E421/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Titanium, dissolved	7440-32-6	E421/EO	0.00030	mg/L	<0.00030	0.00047	----	----	----	
Tungsten, dissolved	7440-33-7	E421/EO	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Uranium, dissolved	7440-61-1	E421/EO	0.000010	mg/L	<0.000010	0.000130	----	----	----	
Vanadium, dissolved	7440-62-2	E421/EO	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Zinc, dissolved	7440-66-6	E421/EO	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
Zirconium, dissolved	7440-67-7	E421/EO	0.00030	mg/L	<0.00030	<0.00030	----	----	----	
Dissolved metals filtration location	----	EP421/EO	-	-	Field	Field	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	TREATED WATER	RAW WATER CHAMBER TAP	----	----	----
					Client sampling date / time	16-Sep-2024 09:20	16-Sep-2024 09:00	----	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----	
					Result	Result	----	----	----	
Aggregate Organics										
Naphthenic acids	----	E565-L/EO	0.10	mg/L	<0.10	<0.10	----	----	----	
Volatile Organic Compounds [BTEXS+MTBE]										
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	----	----	----	
Toluene	108-88-3	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----	
Xylene, m+p-	179601-23-1	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----	
Xylene, o-	95-47-6	E611A/EO	0.50	µg/L	<0.50	<0.50	----	----	----	
Xylenes, total	1330-20-7	E611A/EO	0.75	µg/L	<0.75	<0.75	----	----	----	
BTEX, total	----	E611A/EO	1.2	µg/L	<1.2	<1.2	----	----	----	
Hydrocarbons										
F1 (C6-C10)	----	E581.F1/EO	100	µg/L	<100	<100	----	----	----	
F1-BTEX	----	EC580/EO	100	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	400	µg/L	<400	<400	----	----	----	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601/EO	1.0	%	108	102	----	----	----	
Dichlorotoluene, 3,4-	95-75-0	E581.F1/EO	1.0	%	102	110	----	----	----	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/EO	1.0	%	92.3	83.4	----	----	----	



Analytical Results

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 (Matrix: Water)

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Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----	
					Result	Result	----	----	----	
Volatile Organic Compounds Surrogates										
Difluorobenzene, 1,4-	540-36-3	E611A/EO	1.0	%	80.9	93.1	----	----	----	
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(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	----	----	----	
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	----	----	----	



Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	TREATED WATER	RAW WATER CHAMBER TAP	----	----	----
					Client sampling date / time	16-Sep-2024 09:20	16-Sep-2024 09:00	----	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	FC2402530-001	FC2402530-002	----	----	----	
					Result	Result	----	----	----	
Polycyclic Aromatic Hydrocarbons										
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	----	----	----	
PAHs, high molecular weight (BC AWQ)	n/a	E641A/EO	0.030	µg/L	<0.030	<0.030	----	----	----	
PAHs, low molecular weight (BC AWQ)	n/a	E641A/EO	0.060	µg/L	<0.060	<0.060	----	----	----	
PAHs, total (CCME sewer 18)	n/a	E641A/EO	0.070	µg/L	<0.070	<0.070	----	----	----	
PAHs, total (EPA 16)	n/a	E641A/EO	0.065	µg/L	<0.065	<0.065	----	----	----	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/EO	0.1	%	115	111	----	----	----	
Naphthalene-d8	1146-65-2	E641A/EO	0.1	%	125	115	----	----	----	
Phenanthrene-d10	1517-22-2	E641A/EO	0.1	%	117	109	----	----	----	

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

Please refer to the Accreditation section for an explanation of analyte accreditations.



CERTIFICATE OF ANALYSIS

Work Order	: FC2402530	Page	: 1 of 10
Amendment	: 1		
Client	: Regional Municipality of Wood Buffalo	Laboratory	: ALS Environmental - Fort McMurray
Contact	: Water Treatment Plant	Account Manager	: Megan Trydal
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	:	Date Samples Received	: 16-Sep-2024 15:15
PO	: 4500055977	Date Analysis	: 17-Sep-2024
		Commenced	
C-O-C number	: ----	Issue Date	: 04-Oct-2024 10:03
Sampler	: RP		
Site	: ----		
Quote number	: FC24-RMWB100-0005 FC SC4		
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
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Brayden Ginther	Laboratory Analyst	Metals, Edmonton, Alberta
Dan Nguyen	Team Leader - Inorganics	Metals, Edmonton, Alberta
Daniel Nguyen	Laboratory Analyst	Metals, Edmonton, Alberta
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
Monica Ko	Lab Assistant	Inorganics, Burnaby, British Columbia
Ping Yeung	Team Leader - Inorganics	Inorganics, Edmonton, Alberta
Ping Yeung	Team Leader - Inorganics	Metals, Edmonton, Alberta
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).

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.

<i>Unit</i>	<i>Description</i>
-	no units
%	percent
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
meq/L	milliequivalents per litre
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.



Analytical Results

FC2402530-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: TREATED WATER

Client sampling date / time: 16-Sep-2024 09:20

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Physical Tests								
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	78.2	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Alkalinity, carbonate (as CO ₃)	3812-32-6	1.1	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Alkalinity, total (as CaCO ₃)	----	65.9	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Conductivity	----	217	1.0	µS/cm	E100/EO	17-Sep-2024	17-Sep-2024	1655373
Hardness (as CaCO ₃), dissolved	----	59.4	0.50	mg/L	EC100/EO	-	23-Sep-2024	-
pH	----	8.38	0.10	pH units	E108/EO	17-Sep-2024	17-Sep-2024	1655372
Salinity	----	<1.0	1.0	psu	EC100S/VA	-	24-Sep-2024	-
Solids, total dissolved [TDS], calculated	----	115	1.0	mg/L	EC103/EO	-	18-Sep-2024	-
Anions and Nutrients								
Chloride	16887-00-6	21.9	0.50	mg/L	E235.Cl/EO	17-Sep-2024	17-Sep-2024	1655670
Fluoride	16984-48-8	0.035	0.020	mg/L	E235.F/EO	17-Sep-2024	17-Sep-2024	1655671
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3/EO	17-Sep-2024	17-Sep-2024	1655667
Nitrate + Nitrite (as N)	----	<0.0300	0.03	mg/L	EC235.N+N/EO	-	19-Sep-2024	-
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2/EO	17-Sep-2024	17-Sep-2024	1655668
Sulfate (as SO ₄)	14808-79-8	9.98	0.30	mg/L	E235.SO4/EO	17-Sep-2024	17-Sep-2024	1655669
Total Sulfides								
Sulfide, total (as S)	18496-25-8	0.0140	0.0075	mg/L	E395/CG	-	17-Sep-2024	1656831
Sulfide, total (as H ₂ S)	7783-06-4	0.0149	0.0080	mg/L	E395/CG	-	17-Sep-2024	1656831
Ion Balance								
Anion sum	----	2.14	0.10	meq/L	EC101/EO	-	18-Sep-2024	-
Cation sum	----	2.01	0.10	meq/L	EC101/EO	-	18-Sep-2024	-
Ion balance (APHA)	----	-3.13	0.01	%	EC101/EO	-	18-Sep-2024	-
Ion balance (cations/anions)	----	93.9	0.010	%	EC101/EO	-	18-Sep-2024	-
Total Metals								
Aluminum, total	7429-90-5	0.0265	0.0030	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Arsenic, total	7440-38-2	0.00038	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Barium, total	7440-39-3	0.0304	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Boron, total	7440-42-8	0.018	0.010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Calcium, total	7440-70-2	16.4	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Chromium, total	7440-47-3	<0.000050	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Copper, total	7440-50-8	0.00132	0.00050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Lithium, total	7439-93-2	0.0036	0.0010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Magnesium, total	7439-95-4	4.56	0.0050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Manganese, total	7439-96-5	0.00092	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Molybdenum, total	7439-98-7	0.000416	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Nickel, total	7440-02-0	0.00050	0.00050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852



Analytical Results

FC2402530-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: TREATED WATER

Client sampling date / time: 16-Sep-2024 09:20

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Total Metals								
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Potassium, total	7440-09-7	1.11	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Rubidium, total	7440-17-7	0.00121	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Selenium, total	7782-49-2	0.000071	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Silicon, total	7440-21-3	1.24	0.10	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Sodium, total	7440-23-5	19.6	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Strontium, total	7440-24-6	0.0996	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Sulfur, total	7704-34-9	3.22	0.50	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Tin, total	7440-31-5	0.00018	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0221	0.0010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Arsenic, dissolved	7440-38-2	0.00037	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Barium, dissolved	7440-39-3	0.0306	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Boron, dissolved	7440-42-8	0.016	0.010	mg/L	E421/EO	19-Sep-2024	20-Sep-2024	1661161
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Calcium, dissolved	7440-70-2	16.2	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Copper, dissolved	7440-50-8	0.00107	0.00020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Iron, dissolved	7439-89-6	<0.010	0.010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Lithium, dissolved	7439-93-2	0.0036	0.0010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Magnesium, dissolved	7439-95-4	4.59	0.0050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Manganese, dissolved	7439-96-5	0.00084	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Molybdenum, dissolved	7439-98-7	0.000394	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Potassium, dissolved	7440-09-7	1.10	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Rubidium, dissolved	7440-17-7	0.00124	0.00020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Selenium, dissolved	7782-49-2	0.000057	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Silicon, dissolved	7440-21-3	1.18	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161



Analytical Results

FC2402530-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: TREATED WATER

Client sampling date / time: 16-Sep-2024 09:20

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/LOT
Dissolved Metals								
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Sodium, dissolved	7440-23-5	18.3	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Strontium, dissolved	7440-24-6	0.0930	0.00020	mg/L	E421/EO	19-Sep-2024	20-Sep-2024	1661161
Sulfur, dissolved	7704-34-9	3.48	0.50	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Dissolved metals filtration location	----	Field	-	-	EP421/EO	-	19-Sep-2024	1661161
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L/EO	19-Sep-2024	27-Sep-2024	1660753
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Toluene	108-88-3	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
BTEX, total	----	<1.2	1.2	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1/EO	18-Sep-2024	18-Sep-2024	1656778
F1-BTEX	----	<100	100	µg/L	EC580/EO	-	20-Sep-2024	-
F2 (C10-C16)	----	<100	100	µg/L	E601/EO	17-Sep-2024	17-Sep-2024	1655661
F3 (C16-C34)	----	<250	250	µg/L	E601/EO	17-Sep-2024	17-Sep-2024	1655661
F4 (C34-C50)	----	<250	250	µg/L	E601/EO	17-Sep-2024	17-Sep-2024	1655661
Hydrocarbons, total (C6-C50)	n/a	<400	400	µg/L	EC581/EO	-	18-Sep-2024	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	108	1.0	%	E601/EO	17-Sep-2024	17-Sep-2024	1655661
Dichlorotoluene, 3,4-	95-75-0	102	1.0	%	E581.F1/EO	18-Sep-2024	18-Sep-2024	1656778
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	92.3	1.0	%	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Difluorobenzene, 1,4-	540-36-3	80.9	1.0	%	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Acridine	260-94-6	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662



Analytical Results

FC2402530-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: TREATED WATER

Client sampling date / time: 16-Sep-2024 09:20

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	17-Sep-2024	17-Sep-2024	1655662
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	115	0.1	%	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Naphthalene-d8	1146-65-2	125	0.1	%	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Phenanthrene-d10	1517-22-2	117	0.1	%	E641A/EO	17-Sep-2024	17-Sep-2024	1655662

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

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

FC2402530-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: RAW WATER CHAMBER TAP

Client sampling date / time: 16-Sep-2024 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Physical Tests								
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	69.5	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Alkalinity, carbonate (as CO ₃)	3812-32-6	<1.0	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Alkalinity, total (as CaCO ₃)	----	57.0	1.0	mg/L	E290/EO	17-Sep-2024	17-Sep-2024	1655374
Conductivity	----	146	1.0	µS/cm	E100/EO	17-Sep-2024	17-Sep-2024	1655373
Hardness (as CaCO ₃), dissolved	----	55.1	0.50	mg/L	EC100/EO	-	23-Sep-2024	-
pH	----	8.02	0.10	pH units	E108/EO	17-Sep-2024	17-Sep-2024	1655372
Salinity	----	<1.0	1.0	psu	EC100S/VA	-	24-Sep-2024	-
Solids, total dissolved [TDS], calculated	----	78.8	1.0	mg/L	EC103/EO	-	18-Sep-2024	-



Analytical Results

FC2402530-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: RAW WATER CHAMBER TAP

Client sampling date / time: 16-Sep-2024 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLOT
Anions and Nutrients								
Chloride	16887-00-6	4.95	0.50	mg/L	E235.Cl/EO	17-Sep-2024	17-Sep-2024	1655670
Fluoride	16984-48-8	0.077	0.020	mg/L	E235.F/EO	17-Sep-2024	17-Sep-2024	1655671
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3/EO	17-Sep-2024	17-Sep-2024	1655667
Nitrate + Nitrite (as N)	----	<0.0300	0.03	mg/L	EC235.N+N/EO	-	19-Sep-2024	-
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2/EO	17-Sep-2024	17-Sep-2024	1655668
Sulfate (as SO4)	14808-79-8	10.4	0.30	mg/L	E235.SO4/EO	17-Sep-2024	17-Sep-2024	1655669
Total Sulfides								
Sulfide, total (as S)	18496-25-8	0.0765	0.0075	mg/L	E395/CG	-	17-Sep-2024	1656831
Sulfide, total (as H2S)	7783-06-4	0.0814	0.0080	mg/L	E395/CG	-	17-Sep-2024	1656831
Ion Balance								
Anion sum	----	1.50	0.10	meq/L	EC101/EO	-	18-Sep-2024	-
Cation sum	----	1.37	0.10	meq/L	EC101/EO	-	18-Sep-2024	-
Ion balance (APHA)	----	-4.53	0.01	%	EC101/EO	-	18-Sep-2024	-
Ion balance (cations/anions)	----	91.3	0.010	%	EC101/EO	-	18-Sep-2024	-
Total Metals								
Aluminum, total	7429-90-5	0.0251	0.0030	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Arsenic, total	7440-38-2	0.00044	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Barium, total	7440-39-3	0.0307	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Boron, total	7440-42-8	0.018	0.010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Cadmium, total	7440-43-9	0.0000064	0.0000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Calcium, total	7440-70-2	16.1	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Copper, total	7440-50-8	0.00189	0.00050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Iron, total	7439-89-6	0.054	0.010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Lithium, total	7439-93-2	0.0037	0.0010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Magnesium, total	7439-95-4	4.62	0.0050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Manganese, total	7439-96-5	0.00318	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Molybdenum, total	7439-98-7	0.000467	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Nickel, total	7440-02-0	0.00092	0.00050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Potassium, total	7440-09-7	1.11	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Rubidium, total	7440-17-7	0.00132	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Selenium, total	7782-49-2	0.000104	0.000050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Silicon, total	7440-21-3	1.32	0.10	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Sodium, total	7440-23-5	5.88	0.050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Strontium, total	7440-24-6	0.101	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Sulfur, total	7704-34-9	3.38	0.50	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852



Analytical Results

FC2402530-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: RAW WATER CHAMBER TAP

Client sampling date / time: 16-Sep-2024 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Total Metals								
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Tin, total	7440-31-5	0.00029	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Titanium, total	7440-32-6	0.00052	0.00030	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Uranium, total	7440-61-1	0.000129	0.000010	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420/EO	19-Sep-2024	19-Sep-2024	1660852
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0234	0.0010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Arsenic, dissolved	7440-38-2	0.00044	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Barium, dissolved	7440-39-3	0.0306	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Boron, dissolved	7440-42-8	0.017	0.010	mg/L	E421/EO	19-Sep-2024	20-Sep-2024	1661161
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Calcium, dissolved	7440-70-2	14.5	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Copper, dissolved	7440-50-8	0.00172	0.00020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Iron, dissolved	7439-89-6	0.052	0.010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Lithium, dissolved	7439-93-2	0.0042	0.0010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Magnesium, dissolved	7439-95-4	4.59	0.0050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Manganese, dissolved	7439-96-5	0.00300	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Molybdenum, dissolved	7439-98-7	0.000442	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Nickel, dissolved	7440-02-0	0.00066	0.00050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Potassium, dissolved	7440-09-7	1.08	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Rubidium, dissolved	7440-17-7	0.00121	0.00020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Selenium, dissolved	7782-49-2	0.000087	0.000050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Silicon, dissolved	7440-21-3	1.27	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Sodium, dissolved	7440-23-5	5.52	0.050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Strontium, dissolved	7440-24-6	0.0962	0.00020	mg/L	E421/EO	19-Sep-2024	20-Sep-2024	1661161
Sulfur, dissolved	7704-34-9	3.57	0.50	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Titanium, dissolved	7440-32-6	0.00047	0.00030	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161



Analytical Results

FC2402530-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: RAW WATER CHAMBER TAP

Client sampling date / time: 16-Sep-2024 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLOT
Dissolved Metals								
Uranium, dissolved	7440-61-1	0.000130	0.000010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421/EO	19-Sep-2024	19-Sep-2024	1661161
Dissolved metals filtration location	----	Field	-	-	EP421/EO	-	19-Sep-2024	1661161
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L/EO	19-Sep-2024	27-Sep-2024	1660753
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Toluene	108-88-3	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Xylene, m+p-	179601-23-1	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Xylene, o-	95-47-6	<0.50	0.50	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Xylenes, total	1330-20-7	<0.75	0.75	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
BTEX, total	----	<1.2	1.2	µg/L	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1/EO	18-Sep-2024	18-Sep-2024	1656778
F1-BTEX	----	<100	100	µg/L	EC580/EO	-	20-Sep-2024	-
F2 (C10-C16)	----	<100	100	µg/L	E601/EO	17-Sep-2024	17-Sep-2024	1655661
F3 (C16-C34)	----	<250	250	µg/L	E601/EO	17-Sep-2024	17-Sep-2024	1655661
F4 (C34-C50)	----	<250	250	µg/L	E601/EO	17-Sep-2024	17-Sep-2024	1655661
Hydrocarbons, total (C6-C50)	n/a	<400	400	µg/L	EC581/EO	-	18-Sep-2024	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	102	1.0	%	E601/EO	17-Sep-2024	17-Sep-2024	1655661
Dichlorotoluene, 3,4-	95-75-0	110	1.0	%	E581.F1/EO	18-Sep-2024	18-Sep-2024	1656778
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	83.4	1.0	%	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Diffuorobenzene, 1,4-	540-36-3	93.1	1.0	%	E611A/EO	18-Sep-2024	18-Sep-2024	1656777
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Acridine	260-94-6	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662



Analytical Results

FC2402530-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: RAW WATER CHAMBER TAP

Client sampling date / time: 16-Sep-2024 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	111	0.1	%	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Naphthalene-d8	1146-65-2	115	0.1	%	E641A/EO	17-Sep-2024	17-Sep-2024	1655662
Phenanthrene-d10	1517-22-2	109	0.1	%	E641A/EO	17-Sep-2024	17-Sep-2024	1655662

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

Please refer to the Accreditation section for an explanation of analyte accreditations.