



CERTIFICATE OF ANALYSIS

<p>Work Order : FC2301091</p> <p>Client : Regional Municipality of Wood Buffalo</p> <p>Contact : Water Treatment Plant</p> <p>Address : 1 Silin Forest Road Fort McMurray AB Canada T9H 5A1</p> <p>Telephone : 780-762-5863</p> <p>Project : Fort Chipewyan Imperial Release</p> <p>PO : 4500051416</p> <p>C-O-C number : ----</p> <p>Sampler : MD</p> <p>Site :</p> <p>Quote number : Q61323 (Fort chip)</p> <p>No. of samples received : 6</p> <p>No. of samples analysed : 5</p>	<p>Page : 1 of 8</p> <p>Laboratory : Fort McMurray - Environmental</p> <p>Account Manager : Megan Trydal</p> <p>Address : #4, 340 Macalpine Crescent Fort McMurray AB Canada T9H 4A8</p> <p>Telephone : +1 780 791 1524</p> <p>Date Samples Received : 04-May-2023 10:35</p> <p>Date Analysis Commenced : 04-May-2023</p> <p>Issue Date : 08-May-2023 16:34</p>
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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>
Brooke Miller	Laboratory Analyst	Inorganics, Edmonton, Alberta
Daniel Nguyen	Lab Assistant	Metals, Edmonton, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
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Ping Yeung	Team Leader - Inorganics	Inorganics, Edmonton, Alberta
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Shruti Mudliar	Lab Analyst	Inorganics, Edmonton, Alberta
Yan Zhang	Lab Analyst	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>
-	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

<: 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

Sub-Matrix: Water					Client sample ID	Treated Water	Raw Water Chamber Tap	121 Howard St	104 Pacquette	101 Loutit St
(Matrix: Water)										
Client sampling date / time					03-May-2023 09:35	03-May-2023 09:30	03-May-2023 09:00	03-May-2023 09:15	03-May-2023 09:30	
Analyte	CAS Number	Method	LOR	Unit	FC2301091-001	FC2301091-002	FC2301091-003	FC2301091-004	FC2301091-006	
					Result	Result	Result	Result	Result	
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100	0.50	mg/L	32.6	30.3	32.8	32.6	31.9	
Salinity	----	EC100S	1.0	psu	<1.0	<1.0	<1.0	<1.0	<1.0	
Conductivity	----	E100	2.0	µS/cm	138	75.1	137	130	128	
pH	----	E108	0.10	pH units	8.35	7.68	8.30	8.10	8.06	
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290	1.0	mg/L	58.4	35.1	59.5	61.6	51.7	
Alkalinity, carbonate (as CO3)	3812-32-6	E290	1.0	mg/L	1.2	<1.0	<1.0	<1.0	<1.0	
Alkalinity, hydroxide (as OH)	14280-30-9	E290	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	49.9	28.8	48.8	50.5	42.4	
Solids, total dissolved [TDS], calculated	----	EC103	1.0	mg/L	77.9	43.2	77.1	76.4	70.8	
Anions and Nutrients										
Chloride	16887-00-6	E235.Cl	0.50	mg/L	11.4	2.97	11.2	11.2	11.2	
Fluoride	16984-48-8	E235.F	0.020	mg/L	0.039	0.069	0.049	0.040	0.043	
Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.022	<0.020	0.021	0.021	0.022	
Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	3.06	3.05	2.32	2.38	2.33	
Nitrate + Nitrite (as N)	----	EC235.N+N	0.0500	mg/L	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	
Ion Balance										
Anion sum	----	EC101	0.10	meq/L	1.39	0.73	1.34	1.38	1.22	
Cation sum	----	EC101	0.10	meq/L	1.37	0.77	1.41	1.32	1.30	
Ion balance (APHA)	----	EC101	0.01	%	-0.72	2.67	2.54	-2.22	3.17	
Ion balance (cations/anions)	----	EC101	0.010	%	98.6	105	105	95.6	106	
Total Metals										
Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0191	0.133	0.0231	0.0159	0.0204	
Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00017	0.00026	0.00019	0.00020	0.00016	
Barium, total	7440-39-3	E420	0.00010	mg/L	0.0162	0.0159	0.0154	0.0157	0.0147	
Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	



Analytical Results

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Analyte	CAS Number	Method	LOR	Unit	FC2301091-001	FC2301091-002	FC2301091-003	FC2301091-004	FC2301091-006	
					Result	Result	Result	Result	Result	
Total Metals										
Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Boron, total	7440-42-8	E420	0.010	mg/L	0.015	0.014	0.015	0.015	0.015	
Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	
Calcium, total	7440-70-2	E420	0.050	mg/L	8.83	7.94	8.88	8.81	8.67	
Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	0.000014	<0.000010	<0.000010	<0.000010	
Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	0.00118	<0.00050	0.00437	0.00104	
Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	0.127	<0.010	<0.010	<0.010	
Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	0.000068	<0.000050	<0.000050	<0.000050	
Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0030	0.0028	0.0028	0.0028	0.0033	
Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.50	2.46	2.48	2.49	2.48	
Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00196	0.00389	0.00124	0.00150	0.00100	
Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000180	0.000239	0.000181	0.000214	0.000202	
Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Potassium, total	7440-09-7	E420	0.050	mg/L	1.02	1.00	1.01	1.00	1.00	
Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00092	0.00111	0.00103	0.00100	0.00097	
Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	0.000050	<0.000050	<0.000050	<0.000050	
Silicon, total	7440-21-3	E420	0.10	mg/L	1.82	2.19	1.83	1.86	1.84	
Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Sodium, total	7440-23-5	E420	0.050	mg/L	16.4	2.94	16.4	14.6	14.7	
Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0584	0.0550	0.0568	0.0548	0.0561	
Sulfur, total	7704-34-9	E420	0.50	mg/L	1.46	1.56	1.31	1.48	1.45	
Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	0.00369	<0.00030	<0.00030	<0.00030	
Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	



Analytical Results

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Analyte	CAS Number	Method	LOR	Unit	FC2301091-001	FC2301091-002	FC2301091-003	FC2301091-004	FC2301091-006	
					Result	Result	Result	Result	Result	
Total Metals										
Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	0.000099	<0.000010	<0.000010	<0.000010	
Vanadium, total	7440-62-2	E420	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	
Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0176	0.0083	0.0241	0.0138	0.0187	
Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00013	0.00019	0.00015	0.00013	0.00015	
Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0164	0.0153	0.0156	0.0159	0.0153	
Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	
Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.015	0.014	0.015	0.016	0.015	
Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	
Calcium, dissolved	7440-70-2	E421	0.050	mg/L	8.94	8.09	8.91	8.86	8.73	
Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00031	0.00087	0.00044	0.00409	0.00093	
Iron, dissolved	7439-89-6	E421	0.030	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	
Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0032	0.0030	0.0029	0.0032	0.0030	
Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.50	2.46	2.56	2.55	2.46	
Manganese, dissolved	7439-96-5	E421	0.00500	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000201	0.000234	0.000196	0.000212	0.000227	
Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.00	0.973	1.03	1.03	1.00	
Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00099	0.00095	0.00101	0.00102	0.00097	
Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.85	1.91	1.87	1.88	1.85	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Treated Water	Raw Water Chamber Tap	121 Howard St	104 Pacquette	101 Loutit St
Client sampling date / time					03-May-2023 09:35	03-May-2023 09:30	03-May-2023 09:00	03-May-2023 09:15	03-May-2023 09:30	
Analyte	CAS Number	Method	LOR	Unit	FC2301091-001	FC2301091-002	FC2301091-003	FC2301091-004	FC2301091-006	
					Result	Result	Result	Result	Result	
Dissolved Metals										
Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Sodium, dissolved	7440-23-5	E421	0.050	mg/L	15.9	3.13	16.6	14.8	14.5	
Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0549	0.0525	0.0545	0.0558	0.0553	
Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.44	1.47	1.42	1.40	1.44	
Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	
Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	<0.000010	0.000085	<0.000010	<0.000010	<0.000010	
Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	
Dissolved metals filtration location	----	EP421	-	-	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory	
Aggregate Organics										
Naphthenic acids	----	E565-L	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Toluene	108-88-3	E611A	0.50	µg/L	0.57	0.57	0.58	0.62	0.66	
Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.40	<0.40	<0.40	<0.40	<0.40	
Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	
Xylenes, total	1330-20-7	E611A	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
BTEX, total	----	E611A	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Hydrocarbons										
F1 (C6-C10)	----	E581.F1	100	µg/L	<100	<100	<100	<100	<100	
F1-BTEX	----	EC580	25	µg/L	<100	<100	<100	<100	<100	
F2 (C10-C16)	----	E601	100	µg/L	<100	<100	<100	<100	<100	



Analytical Results

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					Result	Result	Result	Result	Result	
Hydrocarbons										
F3 (C16-C34)	----	E601	250	µg/L	<250	<250	<250	<250	<250	
F4 (C34-C50)	----	E601	250	µg/L	<250	<250	<250	<250	<250	
Hydrocarbons, total (C6-C50)	----	EC581	370	µg/L	<380	<380	<380	<380	<380	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601	1.0	%	109	106	109	109	111	
Dichlorotoluene, 3,4-	95-75-0	E581.F1	1.0	%	125	123	124	126	119	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A	1.0	%	83.6	81.6	82.2	82.0	86.2	
Difluorobenzene, 1,4-	540-36-3	E611A	1.0	%	111	110	110	112	111	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Acenaphthylene	208-96-8	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Acridine	260-94-6	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Anthracene	120-12-7	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benz(a)anthracene	56-55-3	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo(a)pyrene	50-32-8	E641A	0.0050	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(b+j)fluoranthene	n/a	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo(b+j+k)fluoranthene	n/a	E641A	0.015	µg/L	<0.015	<0.015	<0.015	<0.015	<0.015	
Benzo(g,h,i)perylene	191-24-2	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo(k)fluoranthene	207-08-9	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Chrysene	218-01-9	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Dibenz(a,h)anthracene	53-70-3	E641A	0.0050	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Fluoranthene	206-44-0	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Fluorene	86-73-7	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Methylnaphthalene, 1-	90-12-0	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Methylnaphthalene, 1+2-	----	E641A	0.015	µg/L	<0.015	<0.015	<0.015	<0.015	<0.015	
Methylnaphthalene, 2-	91-57-6	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Naphthalene	91-20-3	E641A	0.050	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Phenanthrene	85-01-8	E641A	0.020	µg/L	<0.020	<0.020	<0.020	<0.020	<0.020	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Treated Water	Raw Water Chamber Tap	121 Howard St	104 Pacquette	101 Loutit St
Client sampling date / time					03-May-2023 09:35	03-May-2023 09:30	03-May-2023 09:00	03-May-2023 09:15	03-May-2023 09:30	
Analyte	CAS Number	Method	LOR	Unit	FC2301091-001	FC2301091-002	FC2301091-003	FC2301091-004	FC2301091-006	
					Result	Result	Result	Result	Result	
Polycyclic Aromatic Hydrocarbons										
Pyrene	129-00-0	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Quinoline	91-22-5	E641A	0.050	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
PAHs, high molecular weight (BC AWQ)	n/a	E641A	0.030	µg/L	<0.030	<0.030	<0.030	<0.030	<0.030	
PAHs, low molecular weight (BC AWQ)	n/a	E641A	0.060	µg/L	<0.060	<0.060	<0.060	<0.060	<0.060	
PAHs, total (CCME sewer 18)	n/a	E641A	0.070	µg/L	<0.070	<0.070	<0.070	<0.070	<0.070	
PAHs, total (EPA 16)	n/a	E641A	0.065	µg/L	<0.065	<0.065	<0.065	<0.065	<0.065	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A	0.1	%	87.2	93.7	122	113	116	
Naphthalene-d8	1146-65-2	E641A	0.1	%	128	104	128	129	122	
Phenanthrene-d10	1517-22-2	E641A	0.1	%	128	111	119	128	126	

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



CERTIFICATE OF ANALYSIS

Work Order	: FC2301091	Page	: 1 of 21
Client	: Regional Municipality of Wood Buffalo	Laboratory	: Fort McMurray - Environmental
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	: Fort Chipewyan Imperial Release	Date Samples Received	: 04-May-2023 10:35
PO	: 4500051416	Date Analysis	: 04-May-2023
C-O-C number	: ----	Commenced	
Sampler	: MD	Issue Date	: 08-May-2023 16:28
Site	:		
Quote number	: Q61323 (Fort chip)		
No. of samples received	: 6		
No. of samples analysed	: 5		

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>
Brooke Miller	Laboratory Analyst	Inorganics, Edmonton, Alberta
Daniel Nguyen	Lab Assistant	Metals, Edmonton, Alberta
Geoff Berg	Lab Analyst	Organics, Edmonton, Alberta
Kari Mulroy	Lab Supervisor - Environmental	Organics, Edmonton, Alberta
Lindsay Gung	Supervisor - Water Chemistry	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	Lab Analyst	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

FC2301091-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 03-May-2023 09:35

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	32.6	0.50	mg/L	EC100	-	05-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	08-May-2023	-
Conductivity	----	138	2.0	µS/cm	E100	04-May-2023	04-May-2023	923051
pH	----	8.35	0.10	pH units	E108	04-May-2023	04-May-2023	923050
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	58.4	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, carbonate (as CO ₃)	3812-32-6	1.2	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, total (as CaCO ₃)	----	49.9	2.0	mg/L	E290	04-May-2023	04-May-2023	923052
Solids, total dissolved [TDS], calculated	----	77.9	1.0	mg/L	EC103	-	05-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.4	0.50	mg/L	E235.Cl	04-May-2023	04-May-2023	922976
Fluoride	16984-48-8	0.039	0.020	mg/L	E235.F	04-May-2023	04-May-2023	922975
Nitrate (as N)	14797-55-8	0.022	0.020	mg/L	E235.NO3	04-May-2023	04-May-2023	922972
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	04-May-2023	04-May-2023	922973
Sulfate (as SO ₄)	14808-79-8	3.06	0.30	mg/L	E235.SO4	04-May-2023	04-May-2023	922974
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	05-May-2023	-
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	05-May-2023	924577
Ion Balance								
Anion sum	----	1.39	0.10	meq/L	EC101	-	05-May-2023	-
Cation sum	----	1.37	0.10	meq/L	EC101	-	05-May-2023	-
Ion balance (APHA)	----	-0.72	0.01	%	EC101	-	05-May-2023	-
Ion balance (cations/anions)	----	98.6	0.010	%	EC101	-	05-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0191	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Arsenic, total	7440-38-2	0.00017	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Barium, total	7440-39-3	0.0162	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	04-May-2023	04-May-2023	922291
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Boron, total	7440-42-8	0.015	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	04-May-2023	04-May-2023	922291
Calcium, total	7440-70-2	8.83	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Copper, total	7440-50-8	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Lithium, total	7439-93-2	0.0030	0.0010	mg/L	E420	04-May-2023	04-May-2023	922291
Magnesium, total	7439-95-4	2.50	0.0050	mg/L	E420	04-May-2023	04-May-2023	922291
Manganese, total	7439-96-5	0.00196	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Molybdenum, total	7439-98-7	0.000180	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Potassium, total	7440-09-7	1.02	0.050	mg/L	E420	04-May-2023	04-May-2023	922291



Analytical Results

FC2301091-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 03-May-2023 09:35

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Total Metals								
Rubidium, total	7440-17-7	0.00092	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Silicon, total	7440-21-3	1.82	0.10	mg/L	E420	04-May-2023	04-May-2023	922291
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Sodium, total	7440-23-5	16.4	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Strontium, total	7440-24-6	0.0584	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Sulfur, total	7704-34-9	1.46	0.50	mg/L	E420	04-May-2023	04-May-2023	922291
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	04-May-2023	04-May-2023	922291
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0176	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Arsenic, dissolved	7440-38-2	0.00013	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Barium, dissolved	7440-39-3	0.0164	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	04-May-2023	04-May-2023	922290
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Boron, dissolved	7440-42-8	0.015	0.010	mg/L	E421	04-May-2023	04-May-2023	922290
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	04-May-2023	04-May-2023	922290
Calcium, dissolved	7440-70-2	8.94	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Copper, dissolved	7440-50-8	0.00031	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	04-May-2023	04-May-2023	922290
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Lithium, dissolved	7439-93-2	0.0032	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Magnesium, dissolved	7439-95-4	2.50	0.0050	mg/L	E421	04-May-2023	04-May-2023	922290
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	04-May-2023	04-May-2023	922290
Molybdenum, dissolved	7439-98-7	0.000201	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Potassium, dissolved	7440-09-7	1.00	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Rubidium, dissolved	7440-17-7	0.00099	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Silicon, dissolved	7440-21-3	1.85	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Sodium, dissolved	7440-23-5	15.9	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Strontium, dissolved	7440-24-6	0.0549	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290



Analytical Results

FC2301091-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 03-May-2023 09:35

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Dissolved Metals								
Sulfur, dissolved	7704-34-9	1.44	0.50	mg/L	E421	04-May-2023	04-May-2023	922290
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	04-May-2023	922290
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	04-May-2023	05-May-2023	922227
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Styrene	100-42-5	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Toluene	108-88-3	0.57	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, m+p-	179601-23-1	<0.40	0.40	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, o-	95-47-6	<0.30	0.30	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylenes, total	1330-20-7	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
BTEX, total	----	<1.0	1.0	µg/L	E611A	04-May-2023	04-May-2023	922224
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	04-May-2023	04-May-2023	922223
F1-BTEX	----	<100	100	µg/L	EC580	-	05-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	04-May-2023	04-May-2023	922265
F3 (C16-C34)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
F4 (C34-C50)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
Hydrocarbons, total (C6-C50)	----	<380	380	µg/L	EC581	-	05-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	109	1.0	%	E601	04-May-2023	04-May-2023	922265
Dichlorotoluene, 3,4-	95-75-0	125	1.0	%	E581.F1	04-May-2023	04-May-2023	922223
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	83.6	1.0	%	E611A	04-May-2023	04-May-2023	922224
Diffluorobenzene, 1,4-	540-36-3	111	1.0	%	E611A	04-May-2023	04-May-2023	922224
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266



Analytical Results

FC2301091-001

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Treated Water

Client sampling date / time: 03-May-2023 09:35

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	04-May-2023	04-May-2023	922266
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	04-May-2023	04-May-2023	922266
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	87.2	0.1	%	E641A	04-May-2023	04-May-2023	922266
Naphthalene-d8	1146-65-2	128	0.1	%	E641A	04-May-2023	04-May-2023	922266
Phenanthrene-d10	1517-22-2	128	0.1	%	E641A	04-May-2023	04-May-2023	922266

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

Analytical Results

FC2301091-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	30.3	0.50	mg/L	EC100	-	05-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	08-May-2023	-
Conductivity	----	75.1	2.0	µS/cm	E100	04-May-2023	04-May-2023	923051
pH	----	7.68	0.10	pH units	E108	04-May-2023	04-May-2023	923050
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	35.1	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, carbonate (as CO ₃)	3812-32-6	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, total (as CaCO ₃)	----	28.8	2.0	mg/L	E290	04-May-2023	04-May-2023	923052
Solids, total dissolved [TDS], calculated	----	43.2	1.0	mg/L	EC103	-	05-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	2.97	0.50	mg/L	E235.Cl	04-May-2023	04-May-2023	922976
Fluoride	16984-48-8	0.069	0.020	mg/L	E235.F	04-May-2023	04-May-2023	922975
Nitrate (as N)	14797-55-8	<0.020	0.020	mg/L	E235.NO3	04-May-2023	04-May-2023	922972



Analytical Results

FC2301091-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Anions and Nutrients								
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	04-May-2023	04-May-2023	922973
Sulfate (as SO4)	14808-79-8	3.05	0.30	mg/L	E235.SO4	04-May-2023	04-May-2023	922974
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	05-May-2023	-
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	05-May-2023	924577
Ion Balance								
Anion sum	----	0.73	0.10	meq/L	EC101	-	05-May-2023	-
Cation sum	----	0.77	0.10	meq/L	EC101	-	05-May-2023	-
Ion balance (APHA)	----	2.67	0.01	%	EC101	-	05-May-2023	-
Ion balance (cations/anions)	----	105	0.010	%	EC101	-	05-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.133	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Arsenic, total	7440-38-2	0.00026	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Barium, total	7440-39-3	0.0159	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	04-May-2023	04-May-2023	922291
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Boron, total	7440-42-8	0.014	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	04-May-2023	04-May-2023	922291
Calcium, total	7440-70-2	7.94	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Cesium, total	7440-46-2	0.000014	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Copper, total	7440-50-8	0.00118	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Iron, total	7439-89-6	0.127	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Lead, total	7439-92-1	0.000068	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Lithium, total	7439-93-2	0.0028	0.0010	mg/L	E420	04-May-2023	04-May-2023	922291
Magnesium, total	7439-95-4	2.46	0.0050	mg/L	E420	04-May-2023	04-May-2023	922291
Manganese, total	7439-96-5	0.00389	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Molybdenum, total	7439-98-7	0.000239	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Potassium, total	7440-09-7	1.00	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Rubidium, total	7440-17-7	0.00111	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Selenium, total	7782-49-2	0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Silicon, total	7440-21-3	2.19	0.10	mg/L	E420	04-May-2023	04-May-2023	922291
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Sodium, total	7440-23-5	2.94	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Strontium, total	7440-24-6	0.0550	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Sulfur, total	7704-34-9	1.56	0.50	mg/L	E420	04-May-2023	04-May-2023	922291
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Titanium, total	7440-32-6	0.00369	0.00030	mg/L	E420	04-May-2023	04-May-2023	922291
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291



Analytical Results

FC2301091-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Total Metals								
Uranium, total	7440-61-1	0.000099	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0083	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Arsenic, dissolved	7440-38-2	0.00019	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Barium, dissolved	7440-39-3	0.0153	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	04-May-2023	04-May-2023	922290
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Boron, dissolved	7440-42-8	0.014	0.010	mg/L	E421	04-May-2023	04-May-2023	922290
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	04-May-2023	04-May-2023	922290
Calcium, dissolved	7440-70-2	8.09	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Copper, dissolved	7440-50-8	0.00087	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	04-May-2023	04-May-2023	922290
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Lithium, dissolved	7439-93-2	0.0030	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Magnesium, dissolved	7439-95-4	2.46	0.0050	mg/L	E421	04-May-2023	04-May-2023	922290
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	04-May-2023	04-May-2023	922290
Molybdenum, dissolved	7439-98-7	0.000234	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Potassium, dissolved	7440-09-7	0.973	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Rubidium, dissolved	7440-17-7	0.00095	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Silicon, dissolved	7440-21-3	1.91	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Sodium, dissolved	7440-23-5	3.13	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Strontium, dissolved	7440-24-6	0.0525	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Sulfur, dissolved	7704-34-9	1.47	0.50	mg/L	E421	04-May-2023	04-May-2023	922290
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Uranium, dissolved	7440-61-1	0.000085	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	04-May-2023	922290
Aggregate Organics								



Analytical Results

FC2301091-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	04-May-2023	05-May-2023	922227
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Styrene	100-42-5	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Toluene	108-88-3	0.57	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, m+p-	179601-23-1	<0.40	0.40	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, o-	95-47-6	<0.30	0.30	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylenes, total	1330-20-7	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
BTEX, total	----	<1.0	1.0	µg/L	E611A	04-May-2023	04-May-2023	922224
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	04-May-2023	04-May-2023	922223
F1-BTEX	----	<100	100	µg/L	EC580	-	05-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	04-May-2023	04-May-2023	922265
F3 (C16-C34)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
F4 (C34-C50)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
Hydrocarbons, total (C6-C50)	----	<380	380	µg/L	EC581	-	05-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	106	1.0	%	E601	04-May-2023	04-May-2023	922265
Dichlorotoluene, 3,4-	95-75-0	123	1.0	%	E581.F1	04-May-2023	04-May-2023	922223
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	81.6	1.0	%	E611A	04-May-2023	04-May-2023	922224
Difluorobenzene, 1,4-	540-36-3	110	1.0	%	E611A	04-May-2023	04-May-2023	922224
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	04-May-2023	04-May-2023	922266
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266



Analytical Results

FC2301091-002

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: Raw Water Chamber Tap

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	04-May-2023	04-May-2023	922266
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	93.7	0.1	%	E641A	04-May-2023	04-May-2023	922266
Naphthalene-d8	1146-65-2	104	0.1	%	E641A	04-May-2023	04-May-2023	922266
Phenanthrene-d10	1517-22-2	111	0.1	%	E641A	04-May-2023	04-May-2023	922266

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

Analytical Results

FC2301091-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard St

Client sampling date / time: 03-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	32.8	0.50	mg/L	EC100	-	05-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	08-May-2023	-
Conductivity	----	137	2.0	µS/cm	E100	04-May-2023	04-May-2023	923051
pH	----	8.30	0.10	pH units	E108	04-May-2023	04-May-2023	923050
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	59.5	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, carbonate (as CO ₃)	3812-32-6	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, total (as CaCO ₃)	----	48.8	2.0	mg/L	E290	04-May-2023	04-May-2023	923052
Solids, total dissolved [TDS], calculated	----	77.1	1.0	mg/L	EC103	-	05-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.2	0.50	mg/L	E235.Cl	04-May-2023	04-May-2023	922976
Fluoride	16984-48-8	0.049	0.020	mg/L	E235.F	04-May-2023	04-May-2023	922975
Nitrate (as N)	14797-55-8	0.021	0.020	mg/L	E235.NO3	04-May-2023	04-May-2023	922972
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	04-May-2023	04-May-2023	922973
Sulfate (as SO ₄)	14808-79-8	2.32	0.30	mg/L	E235.SO4	04-May-2023	04-May-2023	922974
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	05-May-2023	-
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	05-May-2023	924577
Ion Balance								
Anion sum	----	1.34	0.10	meq/L	EC101	-	05-May-2023	-
Cation sum	----	1.41	0.10	meq/L	EC101	-	05-May-2023	-
Ion balance (APHA)	----	2.54	0.01	%	EC101	-	05-May-2023	-
Ion balance (cations/anions)	----	105	0.010	%	EC101	-	05-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0231	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291



Analytical Results

FC2301091-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard St

Client sampling date / time: 03-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Total Metals								
Arsenic, total	7440-38-2	0.00019	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Barium, total	7440-39-3	0.0154	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	04-May-2023	04-May-2023	922291
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Boron, total	7440-42-8	0.015	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	04-May-2023	04-May-2023	922291
Calcium, total	7440-70-2	8.88	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Copper, total	7440-50-8	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Lithium, total	7439-93-2	0.0028	0.0010	mg/L	E420	04-May-2023	04-May-2023	922291
Magnesium, total	7439-95-4	2.48	0.0050	mg/L	E420	04-May-2023	04-May-2023	922291
Manganese, total	7439-96-5	0.00124	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Molybdenum, total	7439-98-7	0.000181	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Potassium, total	7440-09-7	1.01	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Rubidium, total	7440-17-7	0.00103	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Silicon, total	7440-21-3	1.83	0.10	mg/L	E420	04-May-2023	04-May-2023	922291
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Sodium, total	7440-23-5	16.4	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Strontium, total	7440-24-6	0.0568	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Sulfur, total	7704-34-9	1.31	0.50	mg/L	E420	04-May-2023	04-May-2023	922291
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	04-May-2023	04-May-2023	922291
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0241	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Arsenic, dissolved	7440-38-2	0.00015	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Barium, dissolved	7440-39-3	0.0156	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	04-May-2023	04-May-2023	922290
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Boron, dissolved	7440-42-8	0.015	0.010	mg/L	E421	04-May-2023	04-May-2023	922290
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	04-May-2023	04-May-2023	922290



Analytical Results

FC2301091-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard St

Client sampling date / time: 03-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Dissolved Metals								
Calcium, dissolved	7440-70-2	8.91	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Copper, dissolved	7440-50-8	0.00044	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	04-May-2023	04-May-2023	922290
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Lithium, dissolved	7439-93-2	0.0029	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Magnesium, dissolved	7439-95-4	2.56	0.0050	mg/L	E421	04-May-2023	04-May-2023	922290
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	04-May-2023	04-May-2023	922290
Molybdenum, dissolved	7439-98-7	0.000196	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Potassium, dissolved	7440-09-7	1.03	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Rubidium, dissolved	7440-17-7	0.00101	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Silicon, dissolved	7440-21-3	1.87	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Sodium, dissolved	7440-23-5	16.6	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Strontium, dissolved	7440-24-6	0.0545	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Sulfur, dissolved	7704-34-9	1.42	0.50	mg/L	E421	04-May-2023	04-May-2023	922290
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	04-May-2023	922290
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	04-May-2023	05-May-2023	922227
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Styrene	100-42-5	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Toluene	108-88-3	0.58	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, m+p-	179601-23-1	<0.40	0.40	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, o-	95-47-6	<0.30	0.30	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylenes, total	1330-20-7	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
BTEX, total	----	<1.0	1.0	µg/L	E611A	04-May-2023	04-May-2023	922224
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	04-May-2023	04-May-2023	922223
F1-BTEX	----	<100	100	µg/L	EC580	-	05-May-2023	-



Analytical Results

FC2301091-003

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 121 Howard St

Client sampling date / time: 03-May-2023 09:00

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Hydrocarbons								
F2 (C10-C16)	----	<100	100	µg/L	E601	04-May-2023	04-May-2023	922265
F3 (C16-C34)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
F4 (C34-C50)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
Hydrocarbons, total (C6-C50)	----	<380	380	µg/L	EC581	-	05-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	109	1.0	%	E601	04-May-2023	04-May-2023	922265
Dichlorotoluene, 3,4-	95-75-0	124	1.0	%	E581.F1	04-May-2023	04-May-2023	922223
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	82.2	1.0	%	E611A	04-May-2023	04-May-2023	922224
Difluorobenzene, 1,4-	540-36-3	110	1.0	%	E611A	04-May-2023	04-May-2023	922224
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	04-May-2023	04-May-2023	922266
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	04-May-2023	04-May-2023	922266
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	122	0.1	%	E641A	04-May-2023	04-May-2023	922266
Naphthalene-d8	1146-65-2	128	0.1	%	E641A	04-May-2023	04-May-2023	922266
Phenanthrene-d10	1517-22-2	119	0.1	%	E641A	04-May-2023	04-May-2023	922266

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



Analytical Results

FC2301091-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 104 Pacquette

Client sampling date / time: 03-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	32.6	0.50	mg/L	EC100	-	05-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	08-May-2023	-
Conductivity	----	130	2.0	µS/cm	E100	04-May-2023	04-May-2023	923051
pH	----	8.10	0.10	pH units	E108	04-May-2023	04-May-2023	923050
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	61.6	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, carbonate (as CO ₃)	3812-32-6	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, total (as CaCO ₃)	----	50.5	2.0	mg/L	E290	04-May-2023	04-May-2023	923052
Solids, total dissolved [TDS], calculated	----	76.4	1.0	mg/L	EC103	-	05-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.2	0.50	mg/L	E235.Cl	04-May-2023	04-May-2023	922976
Fluoride	16984-48-8	0.040	0.020	mg/L	E235.F	04-May-2023	04-May-2023	922975
Nitrate (as N)	14797-55-8	0.021	0.020	mg/L	E235.NO3	04-May-2023	04-May-2023	922972
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	04-May-2023	04-May-2023	922973
Sulfate (as SO ₄)	14808-79-8	2.38	0.30	mg/L	E235.SO4	04-May-2023	04-May-2023	922974
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	05-May-2023	-
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	05-May-2023	924577
Ion Balance								
Anion sum	----	1.38	0.10	meq/L	EC101	-	05-May-2023	-
Cation sum	----	1.32	0.10	meq/L	EC101	-	05-May-2023	-
Ion balance (APHA)	----	-2.22	0.01	%	EC101	-	05-May-2023	-
Ion balance (cations/anions)	----	95.6	0.010	%	EC101	-	05-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0159	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Arsenic, total	7440-38-2	0.00020	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Barium, total	7440-39-3	0.0157	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	04-May-2023	04-May-2023	922291
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Boron, total	7440-42-8	0.015	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	04-May-2023	04-May-2023	922291
Calcium, total	7440-70-2	8.81	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Copper, total	7440-50-8	0.00437	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Lithium, total	7439-93-2	0.0028	0.0010	mg/L	E420	04-May-2023	04-May-2023	922291
Magnesium, total	7439-95-4	2.49	0.0050	mg/L	E420	04-May-2023	04-May-2023	922291
Manganese, total	7439-96-5	0.00150	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Molybdenum, total	7439-98-7	0.000214	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Potassium, total	7440-09-7	1.00	0.050	mg/L	E420	04-May-2023	04-May-2023	922291



Analytical Results

FC2301091-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 104 Pacquette

Client sampling date / time: 03-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Total Metals								
Rubidium, total	7440-17-7	0.00100	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Silicon, total	7440-21-3	1.86	0.10	mg/L	E420	04-May-2023	04-May-2023	922291
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Sodium, total	7440-23-5	14.6	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Strontium, total	7440-24-6	0.0548	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Sulfur, total	7704-34-9	1.48	0.50	mg/L	E420	04-May-2023	04-May-2023	922291
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	04-May-2023	04-May-2023	922291
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0138	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Arsenic, dissolved	7440-38-2	0.00013	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Barium, dissolved	7440-39-3	0.0159	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	04-May-2023	04-May-2023	922290
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Boron, dissolved	7440-42-8	0.016	0.010	mg/L	E421	04-May-2023	04-May-2023	922290
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	04-May-2023	04-May-2023	922290
Calcium, dissolved	7440-70-2	8.86	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Copper, dissolved	7440-50-8	0.00409	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	04-May-2023	04-May-2023	922290
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Lithium, dissolved	7439-93-2	0.0032	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Magnesium, dissolved	7439-95-4	2.55	0.0050	mg/L	E421	04-May-2023	04-May-2023	922290
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	04-May-2023	04-May-2023	922290
Molybdenum, dissolved	7439-98-7	0.000212	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Potassium, dissolved	7440-09-7	1.03	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Rubidium, dissolved	7440-17-7	0.00102	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Silicon, dissolved	7440-21-3	1.88	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Sodium, dissolved	7440-23-5	14.8	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Strontium, dissolved	7440-24-6	0.0558	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290



Analytical Results

FC2301091-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 104 Pacquette

Client sampling date / time: 03-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Dissolved Metals								
Sulfur, dissolved	7704-34-9	1.40	0.50	mg/L	E421	04-May-2023	04-May-2023	922290
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	04-May-2023	922290
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	04-May-2023	05-May-2023	922227
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Styrene	100-42-5	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Toluene	108-88-3	0.62	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, m+p-	179601-23-1	<0.40	0.40	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, o-	95-47-6	<0.30	0.30	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylenes, total	1330-20-7	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
BTEX, total	----	<1.0	1.0	µg/L	E611A	04-May-2023	04-May-2023	922224
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	04-May-2023	04-May-2023	922223
F1-BTEX	----	<100	100	µg/L	EC580	-	05-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	04-May-2023	04-May-2023	922265
F3 (C16-C34)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
F4 (C34-C50)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
Hydrocarbons, total (C6-C50)	----	<380	380	µg/L	EC581	-	05-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	109	1.0	%	E601	04-May-2023	04-May-2023	922265
Dichlorotoluene, 3,4-	95-75-0	126	1.0	%	E581.F1	04-May-2023	04-May-2023	922223
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	82.0	1.0	%	E611A	04-May-2023	04-May-2023	922224
Diffluorobenzene, 1,4-	540-36-3	112	1.0	%	E611A	04-May-2023	04-May-2023	922224
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266



Analytical Results

FC2301091-004

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 104 Pacquette

Client sampling date / time: 03-May-2023 09:15

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	04-May-2023	04-May-2023	922266
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	04-May-2023	04-May-2023	922266
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	113	0.1	%	E641A	04-May-2023	04-May-2023	922266
Naphthalene-d8	1146-65-2	129	0.1	%	E641A	04-May-2023	04-May-2023	922266
Phenanthrene-d10	1517-22-2	128	0.1	%	E641A	04-May-2023	04-May-2023	922266

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

Analytical Results

FC2301091-006

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St -

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Physical Tests								
Hardness (as CaCO ₃), dissolved	----	31.9	0.50	mg/L	EC100	-	05-May-2023	-
Salinity	----	<1.0	1.0	psu	EC100S	-	08-May-2023	-
Conductivity	----	128	2.0	µS/cm	E100	04-May-2023	04-May-2023	923051
pH	----	8.06	0.10	pH units	E108	04-May-2023	04-May-2023	923050
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	51.7	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, carbonate (as CO ₃)	3812-32-6	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, hydroxide (as OH)	14280-30-9	<1.0	1.0	mg/L	E290	04-May-2023	04-May-2023	923052
Alkalinity, total (as CaCO ₃)	----	42.4	2.0	mg/L	E290	04-May-2023	04-May-2023	923052
Solids, total dissolved [TDS], calculated	----	70.8	1.0	mg/L	EC103	-	05-May-2023	-
Anions and Nutrients								
Chloride	16887-00-6	11.2	0.50	mg/L	E235.Cl	04-May-2023	04-May-2023	922976
Fluoride	16984-48-8	0.043	0.020	mg/L	E235.F	04-May-2023	04-May-2023	922975
Nitrate (as N)	14797-55-8	0.022	0.020	mg/L	E235.NO3	04-May-2023	04-May-2023	922972



Analytical Results

FC2301091-006

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St -

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Anions and Nutrients								
Nitrite (as N)	14797-65-0	<0.010	0.010	mg/L	E235.NO2	04-May-2023	04-May-2023	922973
Sulfate (as SO4)	14808-79-8	2.33	0.30	mg/L	E235.SO4	04-May-2023	04-May-2023	922974
Nitrate + Nitrite (as N)	----	<0.0500	0.05	mg/L	EC235.N+N	-	05-May-2023	-
Total Sulfides								
Sulfide, total (as S)	18496-25-8	<0.0015	0.0015	mg/L	E395	-	05-May-2023	924577
Ion Balance								
Anion sum	----	1.22	0.10	meq/L	EC101	-	05-May-2023	-
Cation sum	----	1.30	0.10	meq/L	EC101	-	05-May-2023	-
Ion balance (APHA)	----	3.17	0.01	%	EC101	-	05-May-2023	-
Ion balance (cations/anions)	----	106	0.010	%	EC101	-	05-May-2023	-
Total Metals								
Aluminum, total	7429-90-5	0.0204	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Antimony, total	7440-36-0	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Arsenic, total	7440-38-2	0.00016	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Barium, total	7440-39-3	0.0147	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Beryllium, total	7440-41-7	<0.000020	0.000020	mg/L	E420	04-May-2023	04-May-2023	922291
Bismuth, total	7440-69-9	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Boron, total	7440-42-8	0.015	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Cadmium, total	7440-43-9	<0.0000050	0.0000050	mg/L	E420	04-May-2023	04-May-2023	922291
Calcium, total	7440-70-2	8.67	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Cesium, total	7440-46-2	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Chromium, total	7440-47-3	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Cobalt, total	7440-48-4	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Copper, total	7440-50-8	0.00104	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Iron, total	7439-89-6	<0.010	0.010	mg/L	E420	04-May-2023	04-May-2023	922291
Lead, total	7439-92-1	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Lithium, total	7439-93-2	0.0033	0.0010	mg/L	E420	04-May-2023	04-May-2023	922291
Magnesium, total	7439-95-4	2.48	0.0050	mg/L	E420	04-May-2023	04-May-2023	922291
Manganese, total	7439-96-5	0.00100	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Molybdenum, total	7439-98-7	0.000202	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Nickel, total	7440-02-0	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Phosphorus, total	7723-14-0	<0.050	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Potassium, total	7440-09-7	1.00	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Rubidium, total	7440-17-7	0.00097	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Selenium, total	7782-49-2	<0.000050	0.000050	mg/L	E420	04-May-2023	04-May-2023	922291
Silicon, total	7440-21-3	1.84	0.10	mg/L	E420	04-May-2023	04-May-2023	922291
Silver, total	7440-22-4	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Sodium, total	7440-23-5	14.7	0.050	mg/L	E420	04-May-2023	04-May-2023	922291
Strontium, total	7440-24-6	0.0561	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Sulfur, total	7704-34-9	1.45	0.50	mg/L	E420	04-May-2023	04-May-2023	922291
Tellurium, total	13494-80-9	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Thallium, total	7440-28-0	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Thorium, total	7440-29-1	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Tin, total	7440-31-5	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291
Titanium, total	7440-32-6	<0.00030	0.00030	mg/L	E420	04-May-2023	04-May-2023	922291
Tungsten, total	7440-33-7	<0.00010	0.00010	mg/L	E420	04-May-2023	04-May-2023	922291



Analytical Results

FC2301091-006

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St -

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Total Metals								
Uranium, total	7440-61-1	<0.000010	0.000010	mg/L	E420	04-May-2023	04-May-2023	922291
Vanadium, total	7440-62-2	<0.00050	0.00050	mg/L	E420	04-May-2023	04-May-2023	922291
Zinc, total	7440-66-6	<0.0030	0.0030	mg/L	E420	04-May-2023	04-May-2023	922291
Zirconium, total	7440-67-7	<0.00020	0.00020	mg/L	E420	04-May-2023	04-May-2023	922291
Dissolved Metals								
Aluminum, dissolved	7429-90-5	0.0187	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Antimony, dissolved	7440-36-0	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Arsenic, dissolved	7440-38-2	0.00015	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Barium, dissolved	7440-39-3	0.0153	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Beryllium, dissolved	7440-41-7	<0.000020	0.000020	mg/L	E421	04-May-2023	04-May-2023	922290
Bismuth, dissolved	7440-69-9	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Boron, dissolved	7440-42-8	0.015	0.010	mg/L	E421	04-May-2023	04-May-2023	922290
Cadmium, dissolved	7440-43-9	<0.0000050	0.0000050	mg/L	E421	04-May-2023	04-May-2023	922290
Calcium, dissolved	7440-70-2	8.73	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Cesium, dissolved	7440-46-2	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Chromium, dissolved	7440-47-3	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Cobalt, dissolved	7440-48-4	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Copper, dissolved	7440-50-8	0.00093	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Iron, dissolved	7439-89-6	<0.030	0.030	mg/L	E421	04-May-2023	04-May-2023	922290
Lead, dissolved	7439-92-1	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Lithium, dissolved	7439-93-2	0.0030	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Magnesium, dissolved	7439-95-4	2.46	0.0050	mg/L	E421	04-May-2023	04-May-2023	922290
Manganese, dissolved	7439-96-5	<0.00500	0.00500	mg/L	E421	04-May-2023	04-May-2023	922290
Molybdenum, dissolved	7439-98-7	0.000227	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Nickel, dissolved	7440-02-0	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Phosphorus, dissolved	7723-14-0	<0.050	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Potassium, dissolved	7440-09-7	1.00	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Rubidium, dissolved	7440-17-7	0.00097	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Selenium, dissolved	7782-49-2	<0.000050	0.000050	mg/L	E421	04-May-2023	04-May-2023	922290
Silicon, dissolved	7440-21-3	1.85	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Silver, dissolved	7440-22-4	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Sodium, dissolved	7440-23-5	14.5	0.050	mg/L	E421	04-May-2023	04-May-2023	922290
Strontium, dissolved	7440-24-6	0.0553	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Sulfur, dissolved	7704-34-9	1.44	0.50	mg/L	E421	04-May-2023	04-May-2023	922290
Tellurium, dissolved	13494-80-9	<0.00020	0.00020	mg/L	E421	04-May-2023	04-May-2023	922290
Thallium, dissolved	7440-28-0	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Thorium, dissolved	7440-29-1	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Tin, dissolved	7440-31-5	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Titanium, dissolved	7440-32-6	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Tungsten, dissolved	7440-33-7	<0.00010	0.00010	mg/L	E421	04-May-2023	04-May-2023	922290
Uranium, dissolved	7440-61-1	<0.000010	0.000010	mg/L	E421	04-May-2023	04-May-2023	922290
Vanadium, dissolved	7440-62-2	<0.00050	0.00050	mg/L	E421	04-May-2023	04-May-2023	922290
Zinc, dissolved	7440-66-6	<0.0010	0.0010	mg/L	E421	04-May-2023	04-May-2023	922290
Zirconium, dissolved	7440-67-7	<0.00030	0.00030	mg/L	E421	04-May-2023	04-May-2023	922290
Dissolved metals filtration location	----	Laboratory	-	-	EP421	-	04-May-2023	922290
Aggregate Organics								



Analytical Results

FC2301091-006

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St -

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLOT
Aggregate Organics								
Naphthenic acids	----	<0.10	0.10	mg/L	E565-L	04-May-2023	05-May-2023	922227
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Ethylbenzene	100-41-4	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Styrene	100-42-5	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Toluene	108-88-3	0.66	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, m+p-	179601-23-1	<0.40	0.40	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylene, o-	95-47-6	<0.30	0.30	µg/L	E611A	04-May-2023	04-May-2023	922224
Xylenes, total	1330-20-7	<0.50	0.50	µg/L	E611A	04-May-2023	04-May-2023	922224
BTEX, total	----	<1.0	1.0	µg/L	E611A	04-May-2023	04-May-2023	922224
Hydrocarbons								
F1 (C6-C10)	----	<100	100	µg/L	E581.F1	04-May-2023	04-May-2023	922223
F1-BTEX	----	<100	100	µg/L	EC580	-	05-May-2023	-
F2 (C10-C16)	----	<100	100	µg/L	E601	04-May-2023	04-May-2023	922265
F3 (C16-C34)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
F4 (C34-C50)	----	<250	250	µg/L	E601	04-May-2023	04-May-2023	922265
Hydrocarbons, total (C6-C50)	----	<380	380	µg/L	EC581	-	05-May-2023	-
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	111	1.0	%	E601	04-May-2023	04-May-2023	922265
Dichlorotoluene, 3,4-	95-75-0	119	1.0	%	E581.F1	04-May-2023	04-May-2023	922223
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	86.2	1.0	%	E611A	04-May-2023	04-May-2023	922224
Difluorobenzene, 1,4-	540-36-3	111	1.0	%	E611A	04-May-2023	04-May-2023	922224
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	83-32-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acenaphthylene	208-96-8	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Acridine	260-94-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Anthracene	120-12-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benz(a)anthracene	56-55-3	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(a)pyrene	50-32-8	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j)fluoranthene	n/a	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(b+j+k)fluoranthene	n/a	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(g,h,i)perylene	191-24-2	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Benzo(k)fluoranthene	207-08-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Chrysene	218-01-9	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Dibenz(a,h)anthracene	53-70-3	<0.0050	0.0050	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluoranthene	206-44-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Fluorene	86-73-7	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Indeno(1,2,3-c,d)pyrene	193-39-5	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1-	90-12-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 1+2-	----	<0.015	0.015	µg/L	E641A	04-May-2023	04-May-2023	922266
Methylnaphthalene, 2-	91-57-6	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Naphthalene	91-20-3	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266
Phenanthrene	85-01-8	<0.020	0.020	µg/L	E641A	04-May-2023	04-May-2023	922266
Pyrene	129-00-0	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
Quinoline	91-22-5	<0.050	0.050	µg/L	E641A	04-May-2023	04-May-2023	922266



Analytical Results

FC2301091-006

Sub-Matrix: Water

(Matrix: Water)

Client sample ID: 101 Loutit St -

Client sampling date / time: 03-May-2023 09:30

Analyte	CAS Number	Result	LOR	Unit	Method	Prep Date	Analysis Date	QCLot
Polycyclic Aromatic Hydrocarbons								
B(a)P total potency equivalents [B(a)P TPE]	----	<0.010	0.010	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, high molecular weight (BC AWQ)	n/a	<0.030	0.03	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, low molecular weight (BC AWQ)	n/a	<0.060	0.06	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (CCME sewer 18)	n/a	<0.070	0.07	µg/L	E641A	04-May-2023	04-May-2023	922266
PAHs, total (EPA 16)	n/a	<0.065	0.065	µg/L	E641A	04-May-2023	04-May-2023	922266
Polycyclic Aromatic Hydrocarbons Surrogates								
Chrysene-d12	1719-03-5	116	0.1	%	E641A	04-May-2023	04-May-2023	922266
Naphthalene-d8	1146-65-2	122	0.1	%	E641A	04-May-2023	04-May-2023	922266
Phenanthrene-d10	1517-22-2	126	0.1	%	E641A	04-May-2023	04-May-2023	922266

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