EDMONTON WATERWORKS
MONTHLY REPORT

January 2024

PROVIDING MORE EPCOR

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1.1.1 Operations – Rossdale and E.L. Smith Plants

Plant Bypasses

The number of bypasses shown on Table 1.2.26 “Rossdale Waste Stream Data” and Table 1.2.27 “E.L. Smith Waste Stream Data” include both planned and unplanned bypasses. A planned bypass is any bypass that is planned a minimum of one day ahead of the actual bypass. All other bypasses are considered unplanned.

In January, Rossdale Plant had no unplanned bypass and no planned shutdown.

Date	Type	Bypass Description

In January, E.L. Smith Plant had two planned shutdowns, two unplanned bypasses and one unplanned shutdown.

Date	Type	Bypass Description
Jan 10	Planned	6 hours shutdown for maintenance work
Jan 17	Unplanned	7.5 hours bypass due to polymer system malfunction
Jan 29	Unplanned	22 hours shutdown due to failure of electrical switchgear
Jan 31	Unplanned	3 hour bypass due to polymer system malfunction
Jan 31	Planned	10 hours shutdown for repair of electrical switchgear

Clarifier Blowdown Volume

- The clarifier blowdown volume shown on Table 1.2.26 and Table 1.2.27 include estimated plant leakage.

Dechlorination Highlights

- During the month of January, there were zero instances of chlorinated waste released at the outfall structure at Rossdale Water Treatment Plant.
- During the month of January, there were zero instances of chlorinated waste released at the outfall structure at E.L. Smith Water Treatment Plant.

Chemical Dosing Highlights

In January, Rossdale and E.L. Smith Water Treatment Plants did not exceed the Maximum Use in the Standard 60, published by the National Sanitation Foundation and the American National Sanitation Standards Institute (NSF/ANSI) for Alum or Caustic Soda.

Chemicals Used for the Month

CHEMICAL NAME	MANUFACTURER
Aluminum Sulfate 48.5%	Chemtrade
Aqua Ammonia 19%	Univar
Caustic Soda 50%	Chemtrade
Hydrofluorosilicic Acid 25%	Nutrien
Magnafloc LT27AG / Praestol DW27AG	Solenis
Magnafloc LT-7995	Solenis
Phosphoric Acid 75%	Innophos
Sodium Hypochlorite 12%	Univar
Liquid Ammonium Sulphate 41%	Umicore Canada Inc
Salt	Windsor
Sodium Bisulphite 38%	Chemtrade

ENV-1.1.2 EDMONTON INCIDENT REPORT SUMMARY – January 2024

EPCOR Incident Number	Description	Date of Incident	AEPA Reference Number
ENV-20240110-983664-v1	About 0.1m^3 per hour of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. Dechlorination pucks were placed in the path of water, the water did not make it to drainage infrastructure before freezing.	January 8, 2024	423699
ENV-20240111-533019-v1	About 57m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby storm catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water The leak was isolated until the repair was completed.	January 11, 2024	423710
ENV-20240112-524970-v1	About 73 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby storm catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water The leak was isolated until the repair was completed.	January 12, 2024	423764
ENV-20240117-864191-v1	About 234 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby storm catch basin. The release of water caused a distruption to traffic and garnered media attention. Fire services were contacted to secure the site so the crews could take appropriate action. The discharge was not directly into a watercourse.Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water. The leak was isolated until the repair was completed.	January 16, 2024	423960

ENV-20240122-334193-v1	About 75 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby storm catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water. The leak was isolated until the repair was completed.	January 21, 2024	424094
ENV-20240121-531394-v1	About 108 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby storm catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water. The leak was isolated until the repair was completed.	January 21, 2024	424093
ENV-20240130-329641	At approximately 2 AM on January 29, electrical cables feeding High Lift Pumps 3 and 4 at the E.L. Smith WTP came in contact with water. The contact resulted in electrical gear failure along with damage to other electrical components. The resulting equipment system failure at E.L. Smith Water Treatment plant forced EPCOR to shut down the pumping facility. The issue had only impacted the pumps and while water could still be treated for use across the region, operations was unable to pump water from the E.L. Smith WTP plant into the distribution and transmission system. For the duration of the issue, all treated water quality parameters were met. A Measure C MANDATORY non-essential public water ban was put unto place. Repairs were completed and the water ban was lifted on February 2nd.	January 29, 2024	424473

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

ROSSDALE WATER TREATMENT PLANT (LEVEL IV)	
Director, Edmonton Water Treatment Plants	
Senior Manager, Operations	**WT II**
Manager, Operations	**WT III, WWT III**
Title	Alberta Environment Certification Level
Operations Engineer	WT I
Manager, Transmission Operations	WT III
Operations Foreman	WT IV
HEI Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Transmission Foreman	WT III
Training Operator Foreman	WT III
Lead Hand, Operator	WT II
Operator I	WT III
Operator I	WT II
Lead Hand, Operator	WT II
Operator I	WT III
Operator I	WT III
Operations Trainer	WT III
Day Foreman	WT IV
Lead Hand, Operator	WT II
Lead Hand, Operator	WT III
Operator I	WT II
Operator I	WT II
Operator I	WT III
Lead Hand, Operator	WT II
Operator I	WT III, WD II
Operator I	WT III, WWT III
Operator I	WT I
Operator I	WT II, WD II, WWT II, WWC II
Operator I (temp)	WT I, WC I

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

E.L. SMITH TREATMENT PLANT (LEVEL IV)	
Director, Edmonton Water Treatment Plants	
Senior Manager, Operations	**WT II**
Manager, Operations	**WT III, WWT III**
Title	Alberta Environment Certification Level
Operations Engineer	
Operations Engineer	WWC I
Day Foreman	WT IV
HEI Foreman	WT IV
Training Operator Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT III
Operations Foreman	WT IV
Operations Foreman	WT IV
Lead Hand, Operator	WT III
Lead Hand, Operator	WT II
Lead Hand, Operator	WT III
Lead Hand, Operator	WT III
Lead Hand, Operator	WT II, WD II, WWT I, WWC I
Operator I	WT III, WWT II,
Operator I	WT II
Operator I	WT III, WWT III
Operator I	WT II
Operator I	WT III
Operator I	WT II, WD I
Operator I	WT II, WD I, WWT II, WWC I
Operator I	WT III, WD I, WWT II, WWC I

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - NETWORK MAINTENANCE

Senior Manager, Maintenance and Construction

Manager, Distribution Maintenance

Manager, Dist. Maint Schedule

Title	Alberta Environment Certification Level
Water Network Operator	WD IV WWC I
Water Network Operator	WD IV
Foreman III	WD III
Foreman III	WD III
Foreman III	WD III
Foreman III	WD III
Foreman I	WD III WWC I
Foreman I	WD II
Foreman I	WD III
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD III
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD II
Labourer II	WD I
Labourer II	WD I
Labourer II	WD I
Labourer II	WD I
Labourer III	WD II
Labourer III	WD III
Labourer II	WD I
Labourer III	WD I
Labourer II	WD I

Labourer II	WD I

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - NETWORK MAINTENANCE

Senior Manager, Maintenance and Construction

Manager, Maintenance and Construction

Manager, Dist. Maint Scheduling

Title	Alberta Environment Certification Level
Truck Driver III	WD I
Labourer II	WD I
Labourer II	WD I
Labourer II	WD I
Labourer II	WD II
Labourer II	WD II
Labourer II	WD II
Truck Driver III	WD II
Truck Driver III	WD I
Truck Driver III	WD I
Foreman III	WD III
Welder	WD II
Maintenance Repairman I	WD II
Maintenance Repairman I	WD I
Maintenance Repairman I	WD I
Labourer III	WD I
Labourer II	WD I
Foreman I	WD I
Water Sys Tech Support Specialist	WD II
Water Sys Tech Support Specialist	WD IV

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - FIELD OPERATIONS

Senior Manager, Distribution Operations	
Manager, Field Operations	
Manager, Metering and Preventative Maintenance	**WD I**
Manager, Water Trouble	**WD III**
Title	Alberta Environment Certification Level
Foreman III	WD IV
Foreman III	WD IV
Foreman I	WD II
Foreman I	WD II
Labourer III	WD II
Labourer III	WD II
Labourer III	WD I
Foreman I	WD I
Labourer III	WD III
Labourer II	WD I
Labourer II	WD II
Labourer II	WD I
Labourer III	WD I
Labourer III	WD I
Labourer II	WD II
Labourer II	WD I
Labourer III	WD I
Labourer II	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD III
Water Systems Serviceman	WD II
Water Systems Serviceman	WD III
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - CUSTOMER SERVICE

Senior Manager, Customer Service

Manager, Dispatch

Manager, Inspections and Customer Service

Title	Alberta Environment Certification Level
Team Lead, Dispatch	
Dispatcher Coordinator	WD I
Inspector – Water Metering	WD II
Inspector – Water Metering	WD I
Foreman III	WD III
Manager, Cross Connections	WD II
Inspector – Cross Connections	WD I

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER METERING (WD)

Manager, Metering Operations	**WD I**
Title	Alberta Environment Certification Level
Foreman III	WD II
Meter Mechanic II	WD II
Meter Installer II	WD III
Meter Installer I	WD I
Meter Installer I	WD II
Meter Installer I	WD II
Meter Installer I	WD I
Meter Installer I	WD III
Meter Installer II	WD I

1.2.1 Raw Water Intake (ML)

January 2024

Day	Rossdale			E.L. Smith	Plants Combined Total
	Plant 1	Plant 2	Plant Total	Plant Total	
1	--	130	130	261	391
2	--	128	128	261	389
3	--	130	130	261	390
4	--	136	136	273	409
5	--	148	148	281	429
6	--	150	150	281	431
7	--	140	140	281	421
8	--	140	140	269	409
9	--	145	145	273	418
10	--	150	150	224	374
11	--	150	150	281	431
12	--	150	150	280	430
13	--	136	136	274	410
14	--	130	130	272	402
15	--	145	145	280	425
16	--	150	150	304	454
17	--	155	155	249	404
18	--	160	160	269	429
19	--	160	160	294	454
20	--	160	160	291	451
21	--	157	157	291	448
22	--	159	159	291	450
23	--	160	160	294	454
24	--	160	160	301	461
25	--	160	160	300	460
26	--	160	160	301	461
27	--	160	160	297	457
28	--	160	160	283	443
29	6.3	163	169	55	224
30	52	150	202	261	463
31	53	147	200	237	437
Monthly Total	111	4,629	4,740	8,370	13,110
Monthly Min	0.0	128	128	55	
Monthly Max	53	163	202	304	
Monthly Avg	3.6	149	153	270	423

NOTES: ' -- ' indicates plant offline

1.2.2 Treated Water Production (ML)

January 2024

Day	Rossdale (Plant 1 & Plant 2)			E.L. Smith			Plants Combined	Reservoir Levels (%)
	Flow Meters			Flow Meters			Flow Meters (Both Plants)	
	Min	Max	Total	Min	Max	Total		
1	50	200	118	205	267	224	342	68.2
2	39	203	118	206	288	229	347	69.0
3	49	205	119	205	295	222	342	67.2
4	62	208	124	210	281	233	357	64.5
5	64	206	134	209	295	236	370	67.0
6	65	206	139	207	303	239	377	70.4
7	79	205	129	202	288	235	364	73.7
8	60	207	128	208	290	226	354	72.5
9	77	205	135	207	287	230	365	70.8
10	37	199	138	0.0	254	168	306	72.5
11	78	203	138	206	296	235	373	64.7
12	51	203	136	206	291	237	373	68.1
13	46	203	124	204	272	228	353	73.1
14	64	208	117	200	293	222	339	73.3
15	80	206	129	205	298	221	350	67.0
16	62	207	131	204	303	249	380	67.2
17	76	203	138	0.0	291	117	255	65.0
18	76	208	140	206	262	223	363	52.1
19	18	200	141	206	296	243	385	52.5
20	80	208	139	209	296	238	377	56.1
21	49	208	135	207	294	238	373	58.4
22	64	208	141	206	290	239	380	56.7
23	44	207	140	202	292	241	381	59.4
24	73	208	142	202	299	253	395	62.3
25	96	209	139	203	300	249	388	67.0
26	85	207	139	202	296	247	386	70.2
27	51	201	140	199	300	242	382	73.3
28	44	209	142	203	300	235	377	77.1
29	90	223	142	0.0	296	19	160	69.5
30	93	207	173	187	207	209	382	46.7
31	102	205	179	0.0	206	134	314	48.9
Monthly Tota			4,227			6,762	10,989	
Monthly Min	18			0.0				
Monthly Max		223			303			
Monthly Avg			136			218	354	

NOTES: ' -- ' indicates plant offline

- Estimated flows are based on UV effluent flow meters to address inaccuracy of highlift flow meters.
- Reservoir levels (%) recorded daily at 7 AM

1.2.3 Raw Water Quality - North Saskatchewan River

January 2024

Day	Rossdale									E.L. Smith								
	Turbidity (NTU)			pH			Colour (TCU)			Turbidity (NTU)			pH			Colour (TCU)		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	2.0	2.3	2.2	8.1	8.2	8.2	5.4	6.0	5.9	2.1	2.4	2.2	8.1	8.1	8.1	5.1	6.1	5.6
2	2.0	2.2	2.1	8.1	8.1	8.1	5.4	5.9	5.7	2.1	2.4	2.2	8.1	8.1	8.1	5.6	6.2	5.9
3	2.0	2.2	2.1	8.0	8.1	8.1	5.5	5.7	5.6	2.0	2.2	2.1	8.1	8.2	8.1	5.5	5.8	5.6
4	1.9	2.0	1.9	8.1	8.1	8.1	4.9	5.5	5.1	1.9	2.1	2.0	8.0	8.2	8.1	5.3	5.9	5.5
5	1.9	2.0	2.0	8.1	8.2	8.1	5.0	5.3	5.1	1.9	2.1	2.0	8.1	8.2	8.1	5.7	5.9	5.7
6	1.9	2.2	2.1	8.1	8.1	8.1	5.3	5.8	5.6	2.1	2.3	2.3	8.1	8.2	8.1	5.6	6.2	5.9
7	2.0	2.2	2.1	8.1	8.2	8.1	5.8	6.0	5.9	2.2	2.4	2.3	8.1	8.2	8.2	6.1	6.9	6.3
8	2.0	2.3	2.1	8.1	8.1	8.1	5.9	6.2	6.0	2.0	2.4	2.2	8.0	8.1	8.1	6.4	6.8	6.5
9	2.0	2.4	2.1	8.1	8.2	8.1	5.4	6.2	5.8	2.0	2.4	2.3	8.0	8.2	8.1	5.9	6.9	6.4
10	2.1	5.1	3.4	8.1	8.1	8.1	6.0	6.2	6.2	2.0	2.2	2.1	8.2	8.2	8.2	5.9	6.9	6.3
11	1.9	2.1	2.0	8.1	8.1	8.1	6.0	6.3	6.2	2.1	2.3	2.2	8.2	8.2	8.2	5.9	7.1	6.5
12	2.0	2.2	2.0	8.1	8.1	8.1	6.3	6.9	6.7	2.1	2.7	2.4	8.0	8.2	8.1	7.1	7.6	7.4
13	2.1	3.7	2.3	8.1	8.1	8.1	6.3	7.8	7.3	2.3	4.2	2.9	8.0	8.2	8.1	7.0	7.6	7.3
14	3.3	3.7	3.6	8.1	8.1	8.1	6.3	7.7	7.1	2.9	4.2	3.6	8.0	8.2	8.0	7.0	9.9	8.5
15	2.6	4.2	3.3	8.1	8.1	8.1	7.7	11.6	9.3	2.7	3.0	2.9	8.0	8.1	8.0	9.9	13.5	11.7
16	1.7	4.0	3.1	8.1	8.1	8.1	10.9	13.4	12.5	2.2	2.7	2.5	8.0	8.1	8.1	13.5	14.5	14.0
17	2.2	3.1	2.7	8.0	8.1	8.1	13.2	14.2	13.7	2.1	2.7	2.4	8.0	8.1	8.1	14.0	14.5	14.2
18	2.0	3.1	2.5	8.0	8.0	8.0	12.8	13.4	13.1	1.9	2.2	2.0	8.1	8.2	8.1	14.0	14.5	14.2
19	1.9	2.3	2.2	8.0	8.1	8.1	12.8	13.3	13.1	1.9	2.6	2.4	8.0	8.2	8.0	13.5	14.2	13.8
20	2.1	4.2	3.6	8.1	8.1	8.1	12.2	13.3	12.7	2.6	4.3	3.9	8.1	8.1	8.1	12.5	13.5	13.0
21	2.5	3.2	2.7	8.1	8.1	8.1	11.7	12.6	11.9	2.0	3.9	2.5	8.0	8.1	8.1	12.2	13.0	12.7
22	1.9	3.1	2.4	8.0	8.1	8.1	10.6	12.6	11.9	1.8	2.1	1.9	8.0	8.0	8.0	11.4	12.9	11.9
23	1.9	3.0	2.8	8.0	8.0	8.0	9.6	10.6	10.2	1.7	1.9	1.8	7.9	8.0	8.0	9.6	11.4	10.6
24	1.8	2.1	1.9	8.0	8.0	8.0	9.3	9.8	9.7	1.8	2.3	2.0	7.9	8.0	8.0	8.2	10.1	9.3
25	1.8	2.9	2.5	8.0	8.1	8.0	9.3	10.6	10.0	1.8	2.3	2.0	8.0	8.1	8.0	10.0	13.0	11.5
26	1.7	1.9	1.8	8.1	8.2	8.1	10.6	11.1	10.9	1.4	1.8	1.6	8.1	8.1	8.1	11.3	11.6	11.4
27	1.5	1.9	1.6	8.1	8.1	8.1	10.3	11.0	10.8	1.4	1.8	1.5	8.0	8.1	8.1	10.1	11.3	11.0
28	1.5	1.7	1.6	8.0	8.1	8.1	9.1	10.3	9.8	1.4	1.8	1.6	8.0	8.1	8.0	9.2	10.1	9.7
29	1.6	2.0	1.8	8.0	8.1	8.0	8.6	9.5	9.2	1.8	1.8	1.8	8.0	8.0	8.0	9.7	9.7	9.7
30	1.7	12	3.9	8.1	8.1	8.1	8.5	11.6	9.0	1.7	3.1	2.4	8.0	8.1	8.0	9.0	9.7	9.4
31	1.7	12	3.9	8.0	8.1	8.0	7.6	11.6	9.0	1.5	2.0	1.8	8.0	8.1	8.0	9.0	9.4	9.2
Monthly Min/Max/Avg	1.5	12	2.5	8.0	8.2	8.1	4.9	14.2	8.7	1.4	4.3	2.2	7.9	8.2	8.1	5.1	14.5	9.3

NOTES: ' -- ' indicates plant offline

1.2.4 Treated Water Quality Entering the Distribution System

January 2024

Day	Rossdale														E.L. Smith											
	Turbidity (NTU)			Chloramine Residual (mg/L)			pH			Fluoride Residual (mg/L)			Total Hardness (mg/L as $CaCO_3$)	Colour (TCU)	Turbidity (NTU)			Chloramine Residual (mg/L)			pH			Fluoride Residual (mg/L)			Total Hardness (mg/L as $CaCO_3$)	Colour (TCU)
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Total	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Total	Avg
1	0.07	0.08	0.07	2.11	2.18	2.15	8.0	8.0	8.0	0.72	0.75	0.73	180	1.1	0.07	0.07	0.07	1.98	2.03	2.01	8.1	8.2	8.2	0.66	0.74	0.70	166	1.1
2	0.05	0.08	0.07	2.06	2.18	2.08	8.0	8.0	8.0	0.71	0.72	0.72	179	1.2	0.07	0.07	0.07	1.98	2.08	2.03	8.1	8.2	8.2	0.65	0.70	0.68	170	1.1
3	0.06	0.08	0.06	2.16	2.28	2.23	8.0	8.0	8.0	0.72	0.73	0.72	176	0.9	0.07	0.07	0.07	2.02	2.08	2.06	8.1	8.2	8.1	0.64	0.73	0.68	175	1.1
4	0.06	0.09	0.06	2.11	2.28	2.19	8.0	8.0	8.0	0.73	0.73	0.73	178	0.8	0.06	0.07	0.07	2.03	2.08	2.04	8.1	8.2	8.1	0.69	0.66	0.72	174	0.9
5	0.05	0.07	0.06	2.11	2.23	2.21	8.0	8.0	8.0	0.71	0.74	0.73	172	0.9	0.06	0.07	0.07	2.03	2.08	2.05	7.7	8.2	7.9	0.64	0.70	0.68	170	1.3
6	0.05	0.08	0.05	2.11	2.23	2.17	8.0	8.0	8.0	0.71	0.71	0.71	174	1.0	0.07	0.07	0.07	2.02	2.08	2.05	7.7	7.7	7.7	0.66	0.72	0.68	176	1.4
7	0.05	0.07	0.05	2.16	2.23	2.20	8.0	8.0	8.0	0.71	0.72	0.71	177	1.2	0.07	0.07	0.07	2.01	2.08	2.04	7.7	7.7	7.7	0.66	0.73	0.69	178	1.2
8	0.05	0.06	0.05	2.18	2.23	2.20	8.0	8.0	8.0	0.71	0.72	0.72	179	1.1	0.06	0.07	0.07	1.98	2.08	2.03	7.7	7.7	7.7	0.65	0.70	0.68	174	1.5
9	0.05	0.07	0.05	2.11	2.28	2.22	8.0	8.0	8.0	0.71	0.71	0.71	178	0.9	0.07	0.07	0.07	1.97	2.03	2.01	7.7	7.7	7.7	0.70	0.70	0.70	178	1.1
10	0.05	0.07	0.05	2.13	2.23	2.21	8.0	8.0	8.0	0.71	0.71	0.71	180	1.1	0.07	0.08	0.08	1.91	2.12	2.02	7.6	7.8	7.7	0.70	0.71	0.71	178	1.6
11	0.05	0.07	0.05	2.11	2.23	2.16	8.0	8.0	8.0	0.70	0.71	0.70	182	1.1	0.07	0.08	0.08	2.00	2.12	2.06	7.7	7.7	7.7	0.69	0.70	0.70	178	1.3
12	0.05	0.07	0.05	2.11	2.18	2.15	8.0	8.0	8.0	0.70	0.71	0.70	182	1.2	0.07	0.07	0.07	1.98	2.10	2.03	7.7	7.7	7.7	0.69	0.70	0.70	186	1.3
13	0.05	0.06	0.05	2.06	2.18	2.11	7.9	8.0	8.0	0.70	0.71	0.71	189	1.2	0.07	0.08	0.07	1.98	2.03	2.02	7.7	7.7	7.7	0.69	0.70	0.70	189	1.5
14	0.04	0.06	0.05	2.06	2.13	2.11	7.9	8.0	7.9	0.70	0.71	0.70	188	1.4	0.07	0.07	0.07	1.99	2.03	2.02	7.7	7.7	7.7	0.69	0.70	0.70	188	1.6
15	0.04	0.06	0.05	2.06	2.18	2.15	7.8	7.9	7.9	0.70	0.72	0.71	193	1.5	0.06	0.08	0.07	1.99	2.08	2.04	7.5	7.7	7.6	0.66	0.70	0.69	196	1.6
16	0.05	0.06	0.05	2.11	2.18	2.18	7.7	7.8	7.7	0.67	0.70	0.67	98	1.5	0.06	0.06	0.06	1.99	2.08	2.03	7.5	7.6	7.6	0.66	0.67	0.66	98	1.6
17	0.05	0.06	0.05	2.11	2.18	2.14	7.7	7.8	7.7	0.67	0.68	0.68	106	1.4	0.06	0.06	0.06	1.98	2.09	2.03	7.6	7.6	7.6	0.65	0.67	0.66	106	1.5
18	0.05	0.08	0.05	2.16	2.36	2.26	7.7	7.8	7.7	0.68	0.73	0.70	108	1.1	0.05	0.06	0.06	2.03	2.09	2.07	7.6	7.6	7.6	0.67	0.71	0.69	106	1.4
19	0.05	0.07	0.06	2.13	2.33	2.21	7.7	7.8	7.7	0.71	0.72	0.72	109	1.2	0.05	0.05	0.05	2.08	2.15	2.10	7.6	7.6	7.6	0.71	0.75	0.74	203	1.2
20	0.05	0.07	0.06	2.11	2.33	2.22	7.7	7.8	7.8	0.70	0.72	0.71	106	1.2	0.05	0.05	0.05	2.10	2.18	2.15	7.6	7.6	7.6	0.74	0.75	0.75	104	1.2
21	0.05	0.06	0.05	1.96	2.36	2.21	7.7	7.8	7.7	0.72	0.72	0.72	102	1.1	0.05	0.05	0.05	2.04	2.12	2.09	7.6	7.6	7.6	0.74	0.75	0.74	102	1.1
22	0.05	0.07	0.05	2.11	2.38	2.26	7.7	7.8	7.7	0.69	0.72	0.71	100	1.0	0.05	0.05	0.05	2.03	2.11	2.08	7.6	7.6	7.6	0.74	0.75	0.75	192	1.2
23	0.04	0.06	0.05	2.06	2.23	2.19	7.7	7.8	7.7	0.68	0.69	0.68	98	0.8	0.05	0.06	0.05	1.95	2.07	1.99	7.6	7.6	7.6	0.74	0.76	0.75	96	1.1
24	0.05	0.06	0.05	2.01	2.16	2.11	7.7	7.7	7.7	0.69	0.74	0.72	190	0.9	0.05	0.05	0.05	1.93	1.98	1.97	7.6	7.7	7.7	0.74	0.76	0.75	187	0.6
25	0.04	0.05	0.05	2.06	2.13	2.10	7.7	7.7	7.7	0.74	0.75	0.74	186	0.6	0.05	0.05	0.05	1.93	1.98	1.97	7.6	7.7	7.6	0.74	0.74	0.74	188	1.1
26	0.04	0.06	0.05	2.08	2.23	2.18	7.7	7.8	7.7	0.75	0.76	0.75	185	0.7	0.05	0.05	0.05	1.94	1.98	1.98	7.6	7.7	7.7	0.74	0.74	0.74	184	1.1
27	0.05	0.06	0.05	1.91	2.18	2.10	7.7	7.7	7.7	0.72	0.76	0.74	190	0.9	0.05	0.05	0.05	1.93	2.00	1.98	7.6	7.7	7.7	0.73	0.74	0.74	193	0.9
28	0.05	0.06	0.05	1.96	2.13	2.12	7.7	7.7	7.7	0.72	0.74	0.73	192	0.7	0.05	0.05	0.05	1.98	2.02	1.99	7.7	7.7	7.7	0.73	0.74	0.74	193	0.8
29	0.05	0.06	0.05	1.96	2.13	2.11	7.7	7.7	7.7	0.73	0.74	0.74	191	0.5	0.02	0.08	0.03	1.95	2.00	1.98	7.5	7.9	7.6	0.73	0.74	0.73		0.5
30	0.05	0.06	0.05	1.96	2.18	2.15	7.7	7.7	7.7	0.71	0.73	0.73	186	0.2	0.05	0.06	0.06	1.99	2.07	2.01	7.4	7.8	7.6	0.72	0.75	0.74	191	1.0
31	0.04	0.06	0.05	2.01	2.18	2.14	7.6	7.7	7.7	0.70	0.71	0.70	190	0.6	0.05	0.06	0.06	1.99	2.05	2.02	7.5	7.7	7.6	0.72	0.74	0.74	184	1.0
Monthly Min/Max/ Avg	0.04	0.09	0.05	1.91	2.38	2.17	7.6	8.0	7.8	0.67	0.76	0.71	163	1.0	0.02	0.08	0.06	1.91	2.18	2.03	7.4	8.2	7.7	0.64	0.76	0.71	167	1.2

NOTES: ' -- ' indicates plant offline

1.2.4 – 1 ROSSDALE: Treated Water Quality Entering the Distribution System

Date	Temperature (°C)			pH			Hourly Flow (ML per day)		
	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1-Jan	0.5	0.5	0.5	8.0	8.0	8.0	95	119	107
2-Jan	0.5	0.5	0.5	8.0	8.0	8.0	104	125	117
3-Jan	0.5	0.5	0.5	8.0	8.0	8.0	114	141	128
4-Jan	0.5	0.5	0.5	8.0	8.0	8.0	112	134	126
5-Jan	0.5	0.5	0.5	8.0	8.0	8.0	121	141	131
6-Jan	0.5	0.5	0.5	8.0	8.0	8.0	126	152	139
7-Jan	0.5	0.5	0.5	8.0	8.0	8.0	131	150	141
8-Jan	0.5	0.5	0.5	8.0	8.0	8.0	117	138	128
9-Jan	0.5	0.5	0.5	8.0	8.0	8.0	126	143	135
10-Jan	0.5	0.5	0.5	8.0	8.0	8.0	114	140	129
11-Jan	0.5	0.5	0.5	8.0	8.0	8.0	125	147	136
12-Jan	0.5	0.5	0.5	8.0	8.0	8.0	126	150	139
13-Jan	0.5	0.5	0.5	7.9	8.0	8.0	104	126	115
14-Jan	0.4	0.5	0.4	7.9	8.0	7.9	114	138	128
15-Jan	0.5	0.5	0.5	7.8	7.9	7.9	123	143	134
16-Jan	0.5	0.5	0.5	7.7	7.8	7.7	127	150	140
17-Jan	0.5	0.5	0.5	7.7	7.8	7.7	133	156	146
18-Jan	0.5	0.5	0.5	7.7	7.8	7.7	131	153	141
19-Jan	0.5	0.5	0.5	7.7	7.8	7.7	119	146	134
20-Jan	0.5	0.5	0.5	7.7	7.8	7.8	119	142	130
21-Jan	0.5	0.5	0.5	7.7	7.8	7.7	127	149	138
22-Jan	0.5	0.5	0.5	7.7	7.8	7.7	123	146	136
23-Jan	0.5	0.5	0.5	7.7	7.8	7.7	129	152	141
24-Jan	0.5	0.5	0.5	7.7	7.7	7.7	127	152	141
25-Jan	0.5	0.5	0.5	7.7	7.7	7.7	134	147	141
26-Jan	0.5	0.5	0.5	7.7	7.8	7.7	123	138	132
27-Jan	0.5	0.5	0.5	7.7	7.7	7.7	138	157	149
28-Jan	0.5	0.5	0.5	7.7	7.7	7.7	122	151	137
29-Jan	0.5	0.5	0.5	7.7	7.7	7.7	160	187	174
30-Jan	0.5	0.5	0.5	7.7	7.7	7.7	146	168	157
31-Jan	0.5	0.5	0.5	7.6	7.7	7.7	170	193	185
Monthly Min/Max/Avg.	0.4	0.5	0.5	7.6	8.0	7.8	95	193	137

1.2.4 – 2 E. L. Smith: Treated Water Quality Entering the Distribution System

Date	Temperature (°C)			pH			Hourly Flow (ML per day)		
	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1-Jan	0.7	0.7	0.7	8.1	8.2	8.2	214	221	217
2-Jan	0.7	0.7	0.7	8.1	8.2	8.2	223	234	228
3-Jan	0.7	0.7	0.7	8.1	8.2	8.1	218	229	223
4-Jan	0.7	0.7	0.7	8.1	8.2	8.1	228	238	233
5-Jan	0.6	0.6	0.6	7.7	8.2	7.9	233	250	242
6-Jan	0.6	0.6	0.6	7.7	7.7	7.7	235	245	239
7-Jan	0.6	0.6	0.6	7.7	7.7	7.7	219	233	226
8-Jan	0.6	0.6	0.6	7.7	7.7	7.7	227	239	233
9-Jan	0.6	0.6	0.6	7.7	7.7	7.7	222	233	228
10-Jan	1.1	1.7	1.3	7.2	7.8	7.7	137	170	155
11-Jan	0.6	0.6	0.6	7.7	7.7	7.7	227	238	232
12-Jan	0.6	0.6	0.6	7.7	7.7	7.7	237	251	245
13-Jan	0.6	0.6	0.6	7.7	7.7	7.7	218	225	222
14-Jan	0.6	0.6	0.6	7.7	7.7	7.7	219	230	224
15-Jan	0.6	0.6	0.6	7.5	7.7	7.6	213	220	217
16-Jan	0.6	0.6	0.6	7.5	7.6	7.6	239	253	246
17-Jan	0.6	0.6	0.6	7.6	7.6	7.6	126	154	141
18-Jan	0.6	0.6	0.6	7.6	7.6	7.6	214	220	217
19-Jan	0.6	0.6	0.6	7.6	7.6	7.6	223	239	230
20-Jan	0.6	0.6	0.6	7.6	7.6	7.6	238	251	243
21-Jan	0.6	0.6	0.6	7.6	7.6	7.6	234	247	240
22-Jan	0.6	0.6	0.6	7.6	7.6	7.6	233	247	239
23-Jan	0.6	0.6	0.6	7.6	7.6	7.6	220	235	229
24-Jan	0.6	0.6	0.6	7.6	7.7	7.7	249	264	257
25-Jan	0.6	0.6	0.6	7.6	7.7	7.6	240	256	247
26-Jan	0.6	0.6	0.6	7.6	7.7	7.7	229	241	234
27-Jan	0.6	0.6	0.6	7.6	7.7	7.7	248	263	258
28-Jan	0.6	0.6	0.6	7.7	7.7	7.7	226	234	229
29-Jan	6.6	7.3	7.0	7.5	7.9	7.6	27	48	43
30-Jan	0.6	0.8	0.7	7.4	7.8	7.6	196	203	200
31-Jan	0.9	1.5	1.1	7.3	7.7	7.6	119	149	136
Monthly Min/Max/Avg.	0.6	7.3	0.9	7.2	8.2	7.7	27	264	218

1.2.5 Rossdale Filters 1 - 9 Particle Counts (no./mL >2um)

January 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1	4	2	1	17	3	1	4	2	1	16	2	5	23	8	1	9	2	1	6	2	2	7	4	2	31	4
2	2	17	3	1	2	1	1	2	1	--	--	--	2	8	4	3	19	5	3	22	9	1	4	2	1	4	2
3	1	3	2	1	8	3	2	12	4	1	14	3	1	8	3	1	5	3	3	21	5	1	5	3	1	22	4
4	1	6	2	2	15	4	1	4	2	1	3	1	1	24	3	1	6	1	1	5	2	2	23	5	4	29	6
5	2	18	4	1	18	3	1	2	1	1	24	5	2	9	5	3	16	6	1	2	1	1	5	3	1	6	4
6	1	2	2	1	4	1	6	16	9	1	43	10	1	2	2	2	11	3	3	22	5	4	26	7	1	3	2
7	1	4	2	2	16	4	1	8	3	1	30	8	1	2	1	1	13	2	1	5	2	2	7	4	3	19	5
8	2	24	4	1	4	2	1	13	1	--	--	--	3	21	6	2	19	4	2	34	13	1	35	7	1	11	3
9	1	7	2	1	3	1	1	11	5	2	15	4	1	5	3	1	6	3	3	36	8	6	27	9	1	11	3
10	1	35	10	2	18	7	1	15	3	1	7	2	1	3	1	1	10	2	1	6	3	3	12	5	3	20	5
11	3	21	5	1	6	3	1	3	1	1	21	9	4	24	7	1	19	5	3	24	12	1	7	3	1	5	2
12	1	5	3	1	7	2	1	15	5	2	15	4	1	7	3	1	6	4	3	25	6	2	41	9	1	9	2
13	1	3	2	2	21	4	1	5	3	2	30	4	1	23	7	1	19	3	1	6	3	--	--	--	3	8	5
14	3	24	6	1	5	2	1	21	3	4	15	12	3	12	7	2	9	5	6	11	12	--	--	--	1	8	3
15	1	22	6	1	16	4	1	8	4	1	44	9	3	24	7	2	22	4	1	35	9	--	--	--	1	17	6
16	1	17	4	1	43	11	1	6	2	2	43	16	2	26	8	1	43	6	3	21	6	1	28	18	1	43	20
17	1	45	24	1	13	3	1	14	2	1	42	7	4	29	9	1	25	4	3	45	15	6	41	17	2	44	7
18	1	45	7	1	38	8	1	45	6	1	25	2	3	45	10	1	45	4	1	37	8	4	43	12	2	40	10
19	1	31	4	2	43	20	1	24	2	1	37	5	1	46	9	1	39	4	2	40	13	2	41	7	1	40	3
20	1	33	3	1	45	5	1	35	6	1	44	17	2	41	11	1	45	8	1	43	8	1	24	5	1	44	6
21	1	40	4	1	21	2	1	44	8	1	45	6	1	42	6	1	42	9	1	46	18	1	43	5	1	43	4
22	1	22	1	1	16	2	1	2	1	1	15	1	1	3	1	1	17	1	1	30	2	1	32	2	1	2	1
23	1	2	1	1	33	6	1	11	2	1	32	3	1	19	3	1	45	4	1	28	2	1	23	2	1	21	2
24	1	44	13	1	20	9	1	22	1	1	42	6	1	2	1	4	9	7	1	3	1	1	43	4	1	21	1
25	1	11	1	1	16	2	1	2	1	1	42	3	1	23	5	1	5	1	1	30	4	1	23	2	1	22	4
26	1	27	6	1	32	7	1	19	1	1	13	1	1	40	6	1	41	6	1	16	3	1	35	4	1	41	9
27	1	12	2	1	25	7	1	32	8	1	18	5	1	20	2	1	43	8	1	27	9	1	8	1	1	42	3
28	1	7	1	3	30	19	1	3	1	1	2	1	1	40	8	1	19	1	1	45	1	1	22	4	1	34	6
29	2	28	4	1	7	1	1	20	3	1	28	4	1	43	5	1	35	5	1	25	3	1	44	3	1	24	2
30	1	29	3	1	38	4	1	10	1	1	18	2	1	23	3	1	2	1	1	20	4	1	24	2	1	26	3
31	1	3	1	1	15	2	1	17	1	1	4	2	1	24	3	1	21	1	1	15	2	1	43	4	1	12	1
Monthly Min/Max/Avg	1	45	4	1	45	5	1	45	3	1	45	5	1	46	5	1	45	4	1	46	6	1	44	6	1	44	5

NOTE: ' -- ' indicates filter offline

1.2.6 E.L. Smith Filters 1 - 9 Particle Counts (no./mL >2um)

January 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1	6	3	1	25	3	1	5	2	1	19	4	--	--	--	4	45	13	4	24	7	1	6	3	3	28	8
2	1	17	3	1	29	2	2	18	4	1	16	3	--	--	--	4	29	9	2	27	7	3	26	5	3	23	8
3	1	6	3	1	14	3	1	17	4	1	6	3	--	--	--	2	45	7	3	24	6	2	30	5	2	32	5
4	1	16	4	1	17	3	1	16	3	1	16	3	--	--	--	2	19	5	2	11	4	1	31	4	2	25	5
5	1	23	4	1	18	3	1	6	3	1	19	3	--	--	--	3	16	5	2	27	5	1	30	4	2	26	5
6	1	20	4	1	19	3	2	21	4	1	6	3	--	--	--	3	41	8	2	29	6	3	13	5	4	27	7
7	1	7	3	1	7	3	1	23	3	1	18	4	--	--	--	3	40	9	4	25	6	2	32	6	3	44	8
8	1	19	3	1	19	3	1	13	3	1	41	2	--	--	--	3	43	10	3	26	8	2	28	5	3	36	9
9	1	19	3	1	19	3	1	5	2	1	4	2	--	--	--	2	44	8	3	26	5	3	30	6	2	28	4
10	2	7	4	1	14	4	2	17	4	1	19	4	--	--	--	1	12	5	3	24	6	1	32	5	2	9	5
11	1	17	4	1	7	3	1	18	4	1	15	4	--	--	--	1	12	4	2	28	6	2	18	5	2	26	5
12	1	20	4	1	21	5	1	18	5	1	7	3	--	--	--	4	20	8	3	25	7	2	17	6	3	26	7
13	1	20	4	1	17	4	2	14	5	2	14	5	--	--	--	2	14	5	2	22	6	2	14	5	2	32	6
14	2	12	5	1	21	4	1	21	6	1	42	6	--	--	--	3	24	9	4	19	11	2	18	8	6	31	12
15	1	21	3	1	26	3	1	23	4	1	24	3	--	--	--	2	45	13	3	46	11	2	32	7	1	32	10
16	1	22	3	1	25	3	1	22	3	1	19	2	--	--	--	1	20	3	1	32	5	1	30	5	1	32	3
17	1	45	2	1	19	1	1	18	1	1	19	1	--	--	--	1	28	3	1	26	2	1	44	7	1	26	1
18	1	7	1	1	13	1	1	8	1	1	10	1	--	--	--	1	22	2	1	25	3	1	26	2	1	23	2
19	1	15	1	1	17	1	1	15	1	1	12	1	--	--	--	1	19	1	2	25	3	1	29	2	1	25	1
20	1	14	1	1	18	1	1	15	1	1	12	1	--	--	--	1	22	2	1	23	3	1	26	2	1	26	2
21	1	16	1	1	19	1	1	15	2	1	7	1	--	--	--	1	19	1	1	26	3	1	29	2	1	28	2
22	1	13	1	1	17	1	1	12	1	1	11	1	--	--	--	1	20	1	1	24	2	1	31	2	1	25	1
23	1	11	1	1	20	1	1	12	1	1	10	2	--	--	--	1	17	1	1	26	3	1	22	1	1	29	2
24	1	11	2	1	18	2	1	14	1	1	5	1	--	--	--	1	20	2	1	27	3	1	26	2	1	28	2
25	1	20	1	1	20	1	1	42	9	1	15	2	--	--	--	1	44	6	1	28	2	1	24	1	1	28	1
26	1	20	1	1	21	1	1	44	4	1	21	2	--	--	--	1	44	6	1	28	2	1	24	1	1	32	1
27	1	38	3	1	29	2	1	28	2	1	15	2	--	--	--	1	45	7	1	33	3	1	26	1	1	26	2
28	1	19	2	1	23	1	1	44	4	1	11	2	--	--	--	1	42	5	1	29	2	1	20	1	1	25	1
29	2	23	13	1	1	1	6	10	8	1	14	9	--	--	--	1	5	2	1	2	2	1	1	1	1	2	1
30	1	45	5	1	18	2	1	44	8	1	28	5	--	--	--	1	47	8	1	32	2	1	21	1	1	30	1
31	1	45	9	1	41	9	1	44	5	1	43	4	--	--	--	1	22	3	1	42	6	1	41	4	1	44	12
Monthly Min/Max/Avg	1	45	3	1	41	3	1	44	4	1	43	3	--	--	--	1	47	6	1	46	5	1	44	4	1	44	4

NOTES: ' -- ' indicates filter offline

1.2.7 E.L. Smith Filters 10 - 18 Particle Counts (no./mL >2um)

January 2024

Filter	10			11			12			13			14			15			16			17			18		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	3	31	8	2	26	5	4	25	9	2	14	4	8	45	12	5	23	9	3	19	6	2	11	4	1	39	6
2	4	45	11	1	25	5	6	27	13	2	21	6	9	30	15	4	17	9	3	44	10	3	32	8	3	17	6
3	4	45	12	2	23	5	5	27	11	1	25	7	9	28	15	5	20	10	3	27	9	2	45	8	2	45	7
4	2	44	10	1	24	4	3	24	8	1	14	4	8	26	14	4	17	8	1	23	4	1	12	3	2	18	5
5	3	35	9	2	26	4	4	25	9	1	15	4	8	24	13	5	21	10	2	23	4	1	14	4	2	20	4
6	4	37	11	2	24	4	5	29	11	2	22	6	8	31	14	5	22	10	2	20	5	2	28	6	2	28	6
7	3	44	9	2	30	5	5	45	15	2	33	7	9	42	15	7	38	12	2	42	8	3	45	5	3	45	10
8	3	37	9	2	29	4	4	42	17	2	36	7	8	36	14	4	44	12	2	41	9	2	22	5	2	35	6
9	3	25	6	2	27	4	3	35	6	2	44	6	8	25	15	6	32	16	2	43	5	2	18	5	2	17	5
10	2	13	5	2	9	4	3	25	5	1	12	4	14	28	20	14	30	21	1	29	5	1	15	5	3	11	6
11	1	14	4	1	16	4	2	28	6	1	13	4	12	28	19	12	30	20	2	15	5	1	20	4	1	10	4
12	4	38	11	3	13	6	5	25	9	1	17	5	13	30	20	12	33	22	2	18	6	1	12	5	3	13	5
13	3	12	5	2	15	5	4	28	8	1	18	6	12	29	20	11	31	20	2	22	6	1	11	5	2	24	5
14	6	41	12	2	19	7	3	44	12	1	16	5	14	38	23	16	42	25	2	36	9	2	13	6	1	22	8
15	3	44	14	1	33	9	1	45	14	1	45	8	17	40	25	5	40	21	2	44	9	1	43	7	1	28	7
16	1	25	4	1	28	4	1	24	5	1	20	3	12	32	19	13	44	23	1	23	4	1	13	4	1	20	4
17	1	43	6	1	44	6	1	24	1	1	5	1	11	23	16	12	45	22	1	11	1	1	45	5	1	43	5
18	1	14	1	1	21	1	1	21	1	1	7	1	12	24	16	15	28	19	1	13	2	1	12	1	1	8	2
19	1	14	1	1	24	1	1	22	1	1	6	1	12	26	16	14	27	19	1	10	1	1	9	1	1	9	1
20	1	16	1	1	26	2	1	21	1	1	6	2	12	27	17	15	30	20	1	13	2	1	9	1	1	11	2
21	1	18	1	1	28	2	1	20	2	1	11	1	12	27	16	13	31	19	1	12	2	1	11	1	1	10	2
22	1	15	1	1	23	1	1	20	1	1	12	1	12	25	16	12	26	17	1	9	1	1	9	1	1	10	1
23	1	18	1	1	26	1	1	24	1	1	8	1	12	25	17	9	24	16	1	11	1	1	10	1	1	9	1
24	1	21	1	1	24	2	1	25	2	1	14	2	8	30	17	4	30	20	1	12	2	1	11	2	1	10	2
25	1	25	1	1	24	1	1	26	1	1	10	1	11	28	16	16	31	21	1	16	1	1	11	1	1	11	1
26	1	16	1	1	30	1	1	24	1	1	10	1	3	27	16	15	31	20	1	11	1	1	9	1	1	6	1
27	1	19	1	1	24	1	1	27	1	1	10	1	12	29	17	15	28	20	1	11	1	1	9	1	1	13	1
28	1	16	1	1	24	2	1	21	1	1	7	1	12	28	17	4	31	20	1	9	1	1	8	1	1	7	1
29	1	1	1	1	3	1	1	25	3	1	6	2	5	19	16	14	24	20	1	8	1	1	1	1	1	11	3
30	1	30	1	1	35	2	1	26	2	1	8	1	12	44	17	15	31	21	1	13	1	1	11	1	1	42	2
31	3	45	11	1	44	5	1	45	5	1	42	4	12	44	20	11	45	25	3	43	8	1	40	6	1	45	4
Monthly Min/Max/Avg	1	45	5	1	44	3	1	45	6	1	45	3	3	45	17	4	45	18	1	44	4	1	45	4	1	45	4

NOTES: ' -- ' indicates filter offline

1.2.8 Rossdale Filters 1 - 9 Turbidity (NTU)

January 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	0.03	0.04	0.03	0.04	0.05	0.05	0.02	0.04	0.03	0.01	0.02	0.01	0.06	0.07	0.07	0.02	0.05	0.02	0.03	0.05	0.03	0.03	0.06	0.04	0.04	0.07	0.05
2	0.04	0.08	0.05	0.03	0.04	0.03	0.01	0.02	0.02	--	--	--	0.03	0.06	0.05	0.03	0.07	0.04	0.03	0.04	0.03	0.02	0.04	0.03	0.03	0.04	0.03
3	0.03	0.04	0.03	0.03	0.04	0.03	0.05	0.07	0.06	0.03	0.08	0.04	0.03	0.03	0.03	0.02	0.03	0.02	0.05	0.08	0.06	0.02	0.02	0.02	0.02	0.03	0.02
4	0.02	0.04	0.03	0.05	0.09	0.06	0.02	0.05	0.04	0.01	0.03	0.02	0.03	0.08	0.04	0.01	0.05	0.02	0.03	0.05	0.04	0.04	0.07	0.05	0.04	0.08	0.05
5	0.04	0.08	0.05	0.03	0.05	0.04	0.02	0.03	0.02	0.01	0.08	0.03	0.03	0.06	0.04	0.05	0.07	0.06	0.03	0.05	0.03	0.03	0.04	0.03	0.03	0.04	0.03
6	0.03	0.04	0.03	0.03	0.03	0.03	0.05	0.07	0.06	0.02	0.04	0.02	0.03	0.04	0.03	0.02	0.05	0.03	0.04	0.08	0.05	0.05	0.08	0.06	0.02	0.03	0.02
7	0.03	0.04	0.03	0.05	0.07	0.06	0.02	0.07	0.04	0.01	0.03	0.01	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.04	0.03	0.03	0.05	0.03	0.04	0.08	0.05
8	0.04	0.08	0.06	0.03	0.05	0.04	0.01	0.02	0.02	--	--	--	0.04	0.08	0.05	0.02	0.08	0.04	0.03	0.05	0.03	0.03	0.03	0.03	0.02	0.04	0.03
9	0.03	0.05	0.04	0.03	0.04	0.03	0.01	0.01	0.01	0.03	0.07	0.04	0.03	0.04	0.03	0.02	0.04	0.03	0.04	0.08	0.05	0.05	0.08	0.06	0.02	0.03	0.02
10	0.03	0.04	0.03	0.04	0.07	0.06	0.02	0.07	0.04	0.01	0.03	0.02	0.03	0.04	0.03	0.01	0.03	0.02	0.03	0.05	0.03	0.03	0.05	0.04	0.04	0.07	0.05
11	0.04	0.07	0.05	0.03	0.05	0.04	0.01	0.02	0.02	0.01	0.02	0.01	0.03	0.07	0.04	0.01	0.06	0.03	0.03	0.05	0.03	0.02	0.07	0.03	0.02	0.04	0.03
12	0.03	0.04	0.03	0.03	0.04	0.03	0.02	0.06	0.04	0.02	0.07	0.03	0.03	0.04	0.03	0.02	0.03	0.02	0.03	0.07	0.05	0.02	0.03	0.02	0.02	0.09	0.03
13	0.03	0.04	0.03	0.04	0.08	0.06	0.02	0.03	0.02	0.01	0.04	0.02	0.03	0.08	0.04	0.01	0.07	0.02	0.03	0.05	0.03	--	--	--	0.03	0.05	0.04
14	0.03	0.07	0.04	0.03	0.04	0.03	0.02	0.07	0.03	0.02	0.08	0.03	0.03	0.05	0.03	0.02	0.05	0.03	0.05	0.08	0.05	--	--	--	0.02	0.04	0.03
15	0.03	0.04	0.03	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.03	0.02	0.03	0.08	0.04	0.02	0.07	0.02	0.03	0.05	0.04	--	--	--	0.02	0.08	0.04
16	0.03	0.08	0.03	0.03	0.07	0.03	0.01	0.02	0.01	0.01	0.06	0.02	0.02	0.04	0.03	0.02	0.05	0.02	0.03	0.07	0.04	0.03	0.06	0.04	0.02	0.03	0.03
17	0.03	0.09	0.04	0.03	0.06	0.04	0.02	0.05	0.02	0.01	0.04	0.02	0.02	0.06	0.03	0.02	0.06	0.02	0.03	0.07	0.04	0.02	0.07	0.03	0.02	0.04	0.03
18	0.03	0.05	0.03	0.03	0.07	0.03	0.01	0.06	0.02	0.01	0.06	0.02	0.02	0.07	0.03	0.02	0.07	0.03	0.03	0.07	0.04	0.02	0.05	0.03	0.03	0.07	0.04
19	0.03	0.07	0.04	0.03	0.06	0.03	0.01	0.03	0.02	0.01	0.07	0.02	0.03	0.07	0.04	0.01	0.06	0.03	0.03	0.07	0.04	0.02	0.06	0.03	0.03	0.07	0.04
20	0.03	0.07	0.04	0.03	0.06	0.04	0.01	0.05	0.03	0.01	0.05	0.02	0.02	0.06	0.03	0.01	0.06	0.02	0.03	0.06	0.04	0.02	0.06	0.03	0.02	0.06	0.03
21	0.03	0.07	0.03	0.02	0.06	0.03	0.01	0.06	0.02	0.01	0.05	0.02	0.03	0.07	0.04	0.02	0.07	0.02	0.03	0.05	0.03	0.02	0.06	0.03	0.02	0.06	0.03
22	0.02	0.07	0.03	0.02	0.06	0.03	0.01	0.05	0.02	0.01	0.05	0.02	0.03	0.03	0.03	0.01	0.06	0.02	0.03	0.06	0.04	0.02	0.02	0.02	0.02	0.03	0.02
23	0.02	0.04	0.03	0.02	0.03	0.03	0.01	0.03	0.01	0.01	0.02	0.01	0.03	0.06	0.04	0.01	0.03	0.01	0.02	0.06	0.03	0.02	0.06	0.03	0.02	0.06	0.03
24	0.02	0.03	0.02	0.02	0.05	0.03	0.01	0.05	0.02	0.01	0.06	0.02	0.02	0.03	0.02	0.04	0.05	0.04	0.02	0.04	0.03	0.02	0.03	0.02	0.02	0.04	0.02
25	0.02	0.04	0.03	0.02	0.03	0.02	0.01	0.01	0.01	0.01	0.03	0.01	0.03	0.06	0.03	0.01	0.04	0.02	0.02	0.04	0.03	0.02	0.05	0.03	0.02	0.05	0.02
26	0.02	0.04	0.02	0.03	0.05	0.03	0.01	0.04	0.02	0.01	0.04	0.02	0.03	0.04	0.03	0.01	0.05	0.02	0.03	0.05	0.03	0.02	0.05	0.02	0.02	0.03	0.02
27	0.02	0.06	0.03	0.02	0.04	0.03	0.01	0.04	0.02	0.01	0.04	0.02	0.03	0.06	0.03	0.01	0.06	0.01	0.03	0.05	0.03	0.02	0.04	0.02	0.02	0.05	0.03
28	0.02	0.04	0.02	0.03	0.05	0.03	0.02	0.03	0.01	0.02	0.03	0.02	0.03	0.05	0.03	0.01	0.05	0.02	0.02	0.04	0.03	0.02	0.06	0.03	0.02	0.03	0.02
29	0.02	0.05	0.03	0.02	0.04	0.03	0.01	0.03	0.01	0.01	0.04	0.02	0.02	0.05	0.02	0.01	0.04	0.02	0.02	0.06	0.03	0.02	0.02	0.02	0.02	0.07	0.03
30	0.02	0.07	0.03	0.02	0.05	0.03	0.01	0.03	0.02	0.01	0.05	0.02	0.03	0.06	0.03	0.01	0.02	0.01	0.03	0.06	0.03	0.02	0.04	0.02	0.02	0.06	0.02
31	0.02	0.03	0.02	0.02	0.05	0.03	0.01	0.05	0.02	0.01	0.02	0.02	0.02	0.05	0.03	0.01	0.05	0.02	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02
Monthly Min/Max/Avg	0.02	0.09	0.03	0.02	0.09	0.04	0.01	0.07	0.02	0.01	0.08	0.02	0.02	0.08	0.03	0.01	0.08	0.02	0.02	0.08	0.04	0.02	0.08	0.03	0.02	0.09	0.03

NOTES: ' -- ' indicates filter offline

1.2.9 E.L. Smith Filters 1 - 9 Turbidity (NTU)

January 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	0.01	0.02	0.02	0.01	0.07	0.01	0.01	0.02	0.01	0.03	0.07	0.03	--	--	--	0.03	0.08	0.04	0.01	0.08	0.02	0.02	0.03	0.03	0.00	0.08	0.02
2	0.01	0.07	0.02	0.00	0.06	0.00	0.01	0.06	0.02	0.03	0.08	0.03	--	--	--	0.03	0.08	0.04	0.01	0.08	0.02	0.02	0.09	0.03	0.00	0.02	0.01
3	0.02	0.02	0.02	0.00	0.06	0.01	0.01	0.06	0.02	0.03	0.04	0.03	--	--	--	0.03	0.08	0.04	0.01	0.07	0.01	0.02	0.09	0.03	0.00	0.07	0.01
4	0.02	0.07	0.02	0.00	0.06	0.01	0.01	0.06	0.01	0.02	0.07	0.03	--	--	--	0.03	0.08	0.04	0.00	0.04	0.01	0.02	0.08	0.03	0.00	0.07	0.01
5	0.02	0.07	0.02	0.00	0.06	0.01	0.01	0.03	0.01	0.03	0.07	0.03	--	--	--	0.03	0.08	0.04	0.00	0.07	0.01	0.02	0.08	0.03	0.00	0.06	0.01
6	0.02	0.07	0.02	0.00	0.06	0.01	0.01	0.06	0.02	0.03	0.04	0.03	--	--	--	0.03	0.08	0.04	0.01	0.07	0.02	0.03	0.04	0.03	0.01	0.07	0.02
7	0.02	0.02	0.02	0.01	0.05	0.01	0.01	0.06	0.02	0.03	0.07	0.03	--	--	--	0.03	0.08	0.04	0.01	0.07	0.02	0.02	0.08	0.03	0.01	0.07	0.02
8	0.01	0.06	0.02	0.01	0.06	0.01	0.01	0.06	0.02	0.03	0.08	0.03	--	--	--	0.03	0.08	0.04	0.01	0.07	0.02	0.02	0.08	0.03	0.00	0.06	0.01
9	0.01	0.07	0.02	0.01	0.06	0.01	0.01	0.02	0.01	0.03	0.08	0.03	--	--	--	0.03	0.08	0.04	0.01	0.07	0.02	0.03	0.09	0.03	0.00	0.07	0.01
10	0.02	0.03	0.02	0.00	0.06	0.01	0.01	0.06	0.02	0.03	0.08	0.04	--	--	--	0.03	0.08	0.04	0.01	0.08	0.02	0.03	0.09	0.04	0.01	0.04	0.02
11	0.02	0.07	0.02	0.00	0.02	0.01	0.01	0.07	0.02	0.03	0.08	0.04	--	--	--	0.03	0.08	0.04	0.01	0.08	0.02	0.00	0.09	0.04	0.00	0.08	0.02
12	0.02	0.08	0.02	0.00	0.07	0.01	0.01	0.07	0.02	0.03	0.04	0.03	--	--	--	0.03	0.09	0.04	0.01	0.08	0.02	0.03	0.08	0.04	0.01	0.08	0.02
13	0.02	0.08	0.02	0.00	0.07	0.01	0.01	0.07	0.02	0.02	0.08	0.03	--	--	--	0.03	0.08	0.04	0.01	0.08	0.02	0.03	0.09	0.04	0.01	0.08	0.02
14	0.02	0.04	0.02	0.00	0.08	0.01	0.01	0.07	0.02	0.02	0.08	0.04	--	--	--	0.03	0.09	0.04	0.01	0.09	0.02	0.02	0.09	0.04	0.01	0.09	0.02
15	0.02	0.08	0.02	0.01	0.06	0.01	0.01	0.06	0.02	0.03	0.07	0.03	--	--	--	0.03	0.08	0.05	0.01	0.09	0.03	0.02	0.09	0.04	0.00	0.09	0.02
16	0.01	0.07	0.02	0.01	0.06	0.01	0.01	0.06	0.01	0.03	0.07	0.03	--	--	--	0.03	0.08	0.03	0.00	0.08	0.01	0.00	0.09	0.03	0.00	0.06	0.01
17	0.01	0.09	0.02	0.01	0.04	0.00	0.01	0.04	0.01	0.03	0.05	0.03	--	--	--	0.03	0.06	0.03	0.01	0.05	0.01	0.02	0.08	0.03	0.01	0.04	0.01
18	0.01	0.04	0.02	0.01	0.03	0.00	0.01	0.03	0.01	0.03	0.05	0.03	--	--	--	0.03	0.06	0.03	0.00	0.05	0.01	0.01	0.06	0.03	0.01	0.04	0.01
19	0.01	0.04	0.02	0.01	0.03	0.00	0.01	0.04	0.01	0.02	0.04	0.03	--	--	--	0.03	0.06	0.03	0.00	0.05	0.01	0.02	0.06	0.03	0.01	0.04	0.01
20	0.01	0.04	0.01	0.01	0.03	0.00	0.01	0.03	0.01	0.02	0.04	0.02	--	--	--	0.02	0.06	0.03	0.00	0.05	0.01	0.02	0.06	0.03	0.01	0.04	0.01
21	0.01	0.04	0.01	0.01	0.03	0.00	0.01	0.06	0.01	0.02	0.07	0.03	--	--	--	0.03	0.06	0.03	0.00	0.04	0.01	0.01	0.05	0.03	0.01	0.06	0.01
22	0.01	0.04	0.01	0.01	0.04	0.01	0.01	0.03	0.01	0.00	0.04	0.03	--	--	--	0.03	0.06	0.03	0.00	0.05	0.01	0.02	0.05	0.02	0.01	0.04	0.01
23	0.01	0.03	0.01	0.03	0.05	0.03	0.01	0.03	0.01	0.02	0.04	0.03	--	--	--	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.05	0.02	0.01	0.03	0.01
24	0.01	0.04	0.02	0.03	0.06	0.03	0.01	0.03	0.01	0.03	0.03	0.03	--	--	--	0.03	0.06	0.03	0.00	0.04	0.01	0.02	0.05	0.03	0.01	0.04	0.01
25	0.01	0.04	0.01	0.03	0.05	0.03	0.01	0.03	0.01	0.02	0.05	0.03	--	--	--	0.03	0.06	0.03	0.00	0.04	0.01	0.01	0.05	0.02	0.01	0.03	0.00
26	0.01	0.03	0.01	0.03	0.06	0.03	0.01	0.03	0.01	0.03	0.04	0.03	--	--	--	0.03	0.06	0.03	0.00	0.04	0.01	0.02	0.05	0.02	0.01	0.02	0.00
27	0.01	0.03	0.01	0.03	0.05	0.03	0.01	0.03	0.01	0.03	0.04	0.03	--	--	--	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.05	0.02	0.01	0.03	0.01
28	0.01	0.03	0.01	0.03	0.05	0.03	0.01	0.03	0.01	0.03	0.04	0.03	--	--	--	0.03	0.05	0.04	0.01	0.03	0.01	0.02	0.05	0.02	0.01	0.02	0.00
29	0.01	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	--	--	--	0.03	0.04	0.03	0.00	0.02	0.00	0.02	0.02	0.02	0.01	0.00	0.00
30	0.01	0.04	0.02	0.03	0.05	0.03	0.01	0.03	0.01	0.03	0.05	0.03	--	--	--	0.03	0.05	0.03	0.00	0.03	0.01	0.02	0.05	0.02	0.01	0.03	0.00
31	0.01	0.09	0.02	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.05	0.03	--	--	--	0.03	0.06	0.03	0.00	0.07	0.01	0.02	0.05	0.03	0.01	0.01	0.00
Monthly Min/Max/Avg	0.01	0.09	0.02	0.01	0.08	0.01	0.01	0.07	0.01	0.00	0.08	0.03	--	--	--	0.02	0.09	0.04	0.01	0.09	0.01	0.01	0.09	0.03	0.01	0.09	0.01

NOTES: ' -- ' indicates filter offline

1.2.10 E.L. Smith Filters 10 - 18 Turbidity (NTU)

January 2024

Filter	10			11			12			13			14			15			16			17			18		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	0.03	0.09	0.04	0.00	0.09	0.02	0.02	0.08	0.03	0.03	0.06	0.04	0.03	0.04	0.03	0.03	0.09	0.04	0.03	0.08	0.04	0.04	0.09	0.04	0.02	0.03	0.02
2	0.03	0.09	0.04	0.00	0.08	0.01	0.02	0.07	0.03	0.03	0.08	0.04	0.03	0.07	0.04	0.03	0.05	0.04	0.03	0.08	0.04	0.03	0.09	0.04	0.02	0.06	0.03
3	0.03	0.05	0.04	0.00	0.08	0.02	0.01	0.07	0.02	0.03	0.08	0.04	0.03	0.07	0.03	0.03	0.08	0.04	0.03	0.08	0.03	0.04	0.09	0.04	0.02	0.06	0.03
4	0.03	0.09	0.04	0.00	0.08	0.01	0.01	0.07	0.02	0.03	0.08	0.03	0.03	0.07	0.04	0.03	0.08	0.04	0.03	0.04	0.03	0.03	0.08	0.04	0.02	0.06	0.03
5	0.03	0.09	0.04	0.00	0.08	0.01	0.02	0.07	0.03	0.03	0.08	0.03	0.03	0.07	0.03	0.04	0.08	0.04	0.03	0.08	0.03	0.03	0.08	0.04	0.02	0.06	0.03
6	0.03	0.09	0.05	0.01	0.08	0.01	0.02	0.07	0.03	0.03	0.05	0.03	0.03	0.07	0.04	0.04	0.08	0.04	0.03	0.08	0.03	0.04	0.08	0.04	0.02	0.06	0.03
7	0.03	0.09	0.04	0.00	0.08	0.02	0.02	0.07	0.03	0.03	0.08	0.04	0.03	0.07	0.03	0.04	0.08	0.04	0.03	0.08	0.03	0.04	0.08	0.04	0.02	0.06	0.03
8	0.04	0.09	0.05	0.00	0.08	0.01	0.02	0.06	0.02	0.03	0.08	0.03	0.03	0.06	0.03	0.03	0.04	0.04	0.03	0.08	0.03	0.04	0.08	0.04	0.02	0.06	0.03
9	0.03	0.09	0.04	0.01	0.09	0.02	0.01	0.07	0.02	0.03	0.08	0.04	0.03	0.09	0.05	0.04	0.08	0.05	0.03	0.08	0.04	0.04	0.08	0.05	0.02	0.05	0.03
10	0.03	0.09	0.05	0.01	0.03	0.01	0.01	0.08	0.02	0.03	0.08	0.04	0.05	0.09	0.06	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05	0.05	0.09	0.06
11	0.03	0.09	0.04	0.01	0.08	0.02	0.01	0.08	0.03	0.03	0.08	0.04	0.05	0.09	0.06	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.07	0.05
12	0.03	0.09	0.04	0.01	0.08	0.02	0.02	0.08	0.03	0.03	0.08	0.04	0.05	0.09	0.06	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05
13	0.03	0.09	0.04	0.01	0.09	0.02	0.01	0.09	0.03	0.03	0.08	0.04	0.05	0.09	0.06	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05
14	0.04	0.09	0.06	0.01	0.08	0.02	0.01	0.09	0.03	0.03	0.08	0.04	0.05	0.09	0.06	0.04	0.07	0.05	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05
15	0.03	0.09	0.04	0.00	0.08	0.02	0.01	0.09	0.03	0.03	0.08	0.04	0.05	0.09	0.06	0.04	0.09	0.04	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05
16	0.03	0.08	0.03	0.00	0.08	0.02	0.01	0.08	0.02	0.03	0.08	0.03	0.04	0.09	0.05	0.04	0.08	0.05	0.04	0.09	0.04	0.04	0.09	0.05	0.04	0.09	0.05
17	0.03	0.08	0.05	0.00	0.08	0.02	0.01	0.06	0.02	0.03	0.06	0.03	0.04	0.09	0.05	0.03	0.09	0.04	0.03	0.08	0.04	0.04	0.09	0.05	0.04	0.09	0.05
18	0.02	0.07	0.03	0.00	0.05	0.01	0.01	0.08	0.02	0.03	0.06	0.03	0.04	0.09	0.05	0.03	0.08	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.07	0.04
19	0.03	0.06	0.03	0.01	0.05	0.01	0.01	0.05	0.02	0.02	0.05	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.08	0.04	0.04	0.08	0.04
20	0.02	0.06	0.03	0.01	0.06	0.01	0.00	0.04	0.01	0.02	0.05	0.03	0.04	0.08	0.05	0.03	0.08	0.04	0.03	0.07	0.04	0.03	0.08	0.04	0.04	0.08	0.04
21	0.02	0.05	0.03	0.00	0.04	0.01	0.01	0.04	0.01	0.02	0.06	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.08	0.04	0.04	0.07	0.04
22	0.02	0.06	0.03	0.01	0.05	0.01	0.01	0.04	0.01	0.03	0.06	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.08	0.04	0.04	0.07	0.04
23	0.02	0.06	0.03	0.01	0.05	0.01	0.01	0.04	0.01	0.03	0.05	0.03	0.04	0.07	0.05	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.07	0.04
24	0.02	0.05	0.03	0.01	0.05	0.01	0.01	0.04	0.01	0.03	0.05	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.03	0.06	0.04	0.03	0.07	0.04	0.04	0.07	0.04
25	0.02	0.05	0.03	0.01	0.08	0.01	0.01	0.04	0.01	0.03	0.05	0.03	0.04	0.07	0.04	0.03	0.06	0.04	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.07	0.04
26	0.02	0.05	0.03	0.00	0.04	0.01	0.01	0.04	0.01	0.03	0.05	0.03	0.04	0.07	0.04	0.03	0.06	0.04	0.03	0.06	0.04	0.03	0.07	0.04	0.04	0.06	0.04
27	0.02	0.05	0.03	0.01	0.04	0.01	0.01	0.04	0.01	0.03	0.05	0.03	0.04	0.07	0.05	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.07	0.04
28	0.02	0.05	0.03	0.01	0.04	0.01	0.01	0.04	0.01	0.03	0.05	0.03	0.04	0.07	0.04	0.03	0.06	0.04	0.03	0.06	0.04	0.03	0.06	0.04	0.04	0.07	0.04
29	0.02	0.02	0.02	0.00	0.04	0.01	0.01	0.03	0.02	0.03	0.05	0.03	0.04	0.05	0.04	0.03	0.04	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.04	0.07	0.05
30	0.02	0.05	0.03	0.01	0.04	0.00	0.00	0.03	0.01	0.03	0.03	0.03	0.04	0.07	0.04	0.03	0.06	0.04	0.03	0.06	0.04	0.03	0.06	0.04	0.04	0.06	0.04
31	0.03	0.06	0.06	0.00	0.05	0.01	0.01	0.04	0.01	0.03	0.05	0.03	0.04	0.05	0.04	0.03	0.07	0.04	0.04	0.08	0.05	0.03	0.08	0.04	0.04	0.08	0.05
Monthly Min/Max/Avg	0.02	0.09	0.04	0.01	0.09	0.01	0.00	0.09	0.02	0.02	0.08	0.03	0.03	0.09	0.04	0.03	0.09	0.04	0.03	0.09	0.04	0.03	0.09	0.04	0.02	0.09	0.04

NOTES: ' -- ' indicates filter offline

1.2.11 Combined Filter Effluent Water Quality

January 2024

Day	Rossdale						E.L. Smith					
	Particle Counts (no./mL,>2um)			Turbidity (NTU)			Particle Counts (no./mL,>2um)			Turbidity (NTU)		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	2	6	3	0.04	0.04	0.05	4	13	6	0.02	0.03	0.03
2	1	6	3	0.04	0.04	0.05	5	10	7	0.02	0.03	0.03
3	2	6	3	0.04	0.08	0.05	5	11	7	0.02	0.03	0.03
4	2	6	3	0.04	0.06	0.05	4	9	5	0.02	0.03	0.03
5	2	7	3	0.04	0.10	0.05	4	8	5	0.02	0.03	0.03
6	3	15	4	0.05	0.08	0.05	5	9	7	0.02	0.03	0.03
7	2	8	3	0.04	0.06	0.05	4	15	8	0.03	0.03	0.03
8	2	9	5	0.01	0.08	0.05	4	12	7	0.02	0.03	0.03
9	1	6	3	0.05	0.09	0.05	4	9	6	0.02	0.04	0.03
10	2	9	4	0.05	0.08	0.05	1	8	5	0.03	0.04	0.04
11	3	9	4	0.05	0.09	0.05	4	9	6	0.03	0.04	0.03
12	3	9	4	0.05	0.10	0.05	6	11	8	0.03	0.04	0.03
13	3	9	4	0.05	0.09	0.06	5	9	7	0.03	0.04	0.03
14	4	13	6	0.05	0.08	0.06	6	16	10	0.03	0.04	0.03
15	4	14	6	0.04	0.06	0.05	4	19	10	0.03	0.04	0.03
16	3	18	9	0.04	0.07	0.06	4	8	6	0.02	0.03	0.03
17	4	15	10	0.04	0.08	0.06	2	12	5	0.02	0.03	0.03
18	3	15	7	0.04	0.06	0.05	2	5	3	0.02	0.03	0.03
19	1	20	7	0.04	0.10	0.05	2	5	3	0.02	0.03	0.02
20	3	17	7	0.05	0.07	0.06	2	6	4	0.02	0.03	0.02
21	1	19	7	0.04	0.07	0.05	2	6	4	0.02	0.03	0.02
22	1	8	1	0.04	0.07	0.04	2	5	3	0.02	0.03	0.02
23	1	10	3	0.04	0.08	0.04	2	6	3	0.02	0.03	0.03
24	1	11	3	0.03	0.07	0.04	2	6	4	0.02	0.03	0.03
25	1	9	2	0.04	0.06	0.04	2	8	4	0.02	0.03	0.02
26	1	12	5	0.04	0.05	0.04	2	8	4	0.02	0.03	0.02
27	2	9	5	0.04	0.07	0.05	2	8	4	0.02	0.03	0.02
28	1	8	2	0.04	0.07	0.04	1	8	4	0.02	0.03	0.02
29	1	11	3	0.04	0.09	0.04	1	17	1	0.01	0.04	0.01
30	1	7	2	0.04	0.10	0.04	2	15	5	0.02	0.03	0.02
31	1	7	2	0.04	0.10	0.05	1	42	8	0.01	0.10	0.02
Monthly Min/Max/Avg	1	20	4	0.01	0.10	0.05	1	42	5	0.01	0.10	0.03

NOTES: ' -- ' indicates plant offline

1.2.12 Rossdale UV Disinfection - Filters 1 - 3

January 2024

Filter	1						2						3						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	40.8	44.4	42.1	14.5	15.9	3.2	34.9	36.0	35.6	20.5	25.4	20.4	35.1	36.3	35.6	17.4	21.5	19.8	92.9	93.4	93.2
2	34.0	39.3	36.2	18.3	27.4	18.2	35.3	44.6	38.5	15.3	22.7	18.9	35.2	47.1	37.1	13.5	18.9	7.2	93.2	94.0	93.7
3	35.0	42.5	37.4	16.6	23.7	20.0	40.5	49.1	43.5	13.1	16.9	8.1	35.1	38.8	37.2	17.2	21.9	2.5	93.5	94.0	93.7
4	40.1	51.6	45.6	13.3	17.9	9.8	34.9	37.2	36.4	19.8	24.5	8.2	35.2	41.7	36.2	16.1	22.2	20.1	93.6	94.5	94.0
5	35.2	36.0	35.6	24.0	27.7	15.5	35.2	37.6	36.0	19.4	26.1	22.1	35.5	42.5	39.4	15.8	19.5	12.0	93.9	94.3	94.2
6	35.0	37.9	35.8	18.7	26.5	22.3	37.2	46.1	38.8	14.5	19.5	12.7	35.1	36.1	35.6	22.2	25.9	0.4	93.8	94.1	93.9
7	37.4	47.1	43.0	13.9	19.0	7.3	35.1	36.0	35.6	24.5	28.4	6.5	35.1	36.0	35.6	21.7	30.2	24.6	93.3	93.9	93.5
8	34.9	36.0	35.6	22.5	26.8	12.9	35.1	36.2	35.6	20.3	27.8	23.4	35.1	41.5	37.0	14.3	22.1	17.9	93.3	93.6	93.5
9	34.2	37.6	35.9	17.8	25.4	21.1	35.3	45.8	39.4	13.8	20.7	16.9	40.1	46.1	43.4	12.6	14.9	4.6	93.3	93.6	93.5
10	35.9	46.9	40.2	13.8	18.7	10.7	35.1	38.9	36.5	11.4	25.0	14.9	34.9	36.1	35.6	21.3	26.9	21.9	93.4	93.5	93.5
11	35.0	35.9	35.6	23.3	27.8	13.3	35.1	36.1	35.6	19.4	27.5	23.2	35.0	43.3	37.7	13.2	21.5	17.0	93.0	93.5	93.2
12	34.9	38.9	35.8	15.5	24.9	20.1	35.4	46.6	39.1	12.1	19.9	15.2	34.9	70.4	36.2	13.0	26.3	13.2	92.5	93.1	92.8
13	37.0	42.0	39.5	13.7	16.0	5.0	35.0	36.0	35.5	20.8	28.7	20.5	34.9	36.5	35.6	14.6	23.1	19.0	91.9	92.9	92.2
14	35.0	36.1	35.6	18.1	26.6	19.4	35.1	41.2	36.2	13.3	20.8	17.5	35.0	56.5	38.3	14.7	22.4	7.1	92.2	92.6	92.4
15	34.9	42.6	49.3	14.8	19.0	15.5	34.8	41.3	35.9	13.1	24.6	16.4	35.0	36.3	35.6	17.1	22.0	19.4	91.1	92.9	91.7
16	35.0	36.0	35.6	19.1	27.2	22.7	34.5	35.8	35.6	20.4	24.7	16.6	34.6	53.1	35.6	12.1	20.3	9.3	92.4	92.9	92.6
17	35.1	40.3	36.8	14.6	24.4	15.7	35.1	36.1	35.6	19.2	20.7	8.1	34.2	36.4	35.6	17.0	22.3	16.3	92.0	92.4	92.2
18	35.0	38.0	35.6	16.5	23.1	17.1	34.7	35.9	35.6	18.9	24.5	17.8	34.8	35.9	35.6	17.5	20.1	13.8	92.0	92.4	92.4
19	35.0	36.3	35.6	19.0	23.2	19.8	39.9	39.9	36.8	14.8	23.7	11.8	34.9	36.4	35.6	17.1	21.1	19.1	91.7	92.4	92.2
20	35.0	43.0	35.6	13.2	26.5	19.0	35.4	39.2	35.7	20.6	26.5	19.6	34.8	35.6	35.6	11.2	25.1	14.0	92.3	93.5	93.1
21	35.4	41.8	37.2	16.3	19.8	15.1	35.1	41.8	36.1	15.8	25.0	17.4	34.8	37.5	35.9	17.0	23.4	15.3	93.4	93.5	93.5
22	36.3	40.3	38.2	16.7	20.0	13.3	35.0	41.3	36.3	17.8	20.2	15.7	34.6	39.5	36.9	16.2	20.2	17.1	93.1	93.6	93.3
23	35.0	38.5	35.7	18.7	25.2	22.5	35.4	43.7	37.4	17.2	23.7	20.4	35.3	45.6	38.7	15.1	19.6	16.4	93.6	94.4	94.0
24	35.2	43.7	37.2	17.9	23.3	9.9	35.2	52.2	39.3	14.2	24.8	15.1	35.3	41.2	36.8	17.3	22.3	18.5	94.3	94.8	94.5
25	35.2	36.2	35.6	21.7	24.3	11.8	35.8	39.5	37.3	19.1	23.3	21.3	37.5	55.0	39.1	13.0	20.3	16.2	94.2	94.8	94.4
26	35.1	37.8	35.6	10.4	26.2	14.8	35.2	40.9	36.1	18.2	24.8	10.2	35.0	36.1	35.6	20.1	27.3	21.1	93.8	94.3	94.0
27	36.4	40.0	37.6	18.3	19.8	9.0	35.3	46.5	37.9	14.7	23.5	20.3	35.3	46.0	38.4	13.5	20.9	15.6	93.4	93.9	93.6
28	35.2	38.1	37.7	17.9	21.7	19.1	35.0	36.1	43.7	10.2	24.6	1.1	35.2	39.5	36.6	16.8	21.3	19.1	93.5	94.2	93.9
29	35.0	40.9	36.4	18.5	23.4	16.2	35.2	36.3	35.7	20.2	24.7	22.5	36.1	49.6	40.1	12.9	19.1	11.4	93.7	94.3	94.0
30	35.1	37.9	36.1	19.7	23.7	20.5	34.9	39.0	36.3	18.8	24.6	20.9	35.0	39.7	35.7	18.0	22.5	20.5	94.0	94.3	94.2
31	35.0	39.9	36.9	18.3	22.8	20.2	35.0	41.8	36.0	17.8	24.3	20.2	34.9	37.4	35.8	17.4	22.7	17.7	92.9	94.2	93.6
Monthly Total						481.1						504.1						468.0			
Monthly Min/Max/ Avg	34.0	51.6	37.6	10.4	27.8		34.5	52.2	37.1	10.2	28.7		34.2	70.4	36.9	11.2	30.2		91.1	94.8	93.4

NOTES: - Each filter has a UV reactor

- Transmittance (%) is a grab sample of the filter effluent prior to the UV reactor of a random online filter

' -- ' indicates filter and UV reactor offline

1.2.13 Rossdale UV Disinfection - Filters 4 - 6

January 2024

Filter	4						5						6						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	41.2	49.1	45.2	14.2	17.2	13.9	36.2	37.9	36.8	18.9	19.5	1.8	35.4	52.0	38.4	13.5	16.9	8.6	92.9	93.4	93.2
2	--	--	--	--	--	--	35.3	43.1	36.3	16.4	25.8	21.4	34.7	35.9	35.6	21.2	26.1	11.3	93.2	94.0	93.7
3	35.1	45.3	36.9	17.5	23.9	19.3	35.4	48.2	40.9	14.4	20.1	17.1	35.3	36.0	35.6	18.9	26.9	23.1	93.5	94.0	93.7
4	36.9	55.4	45.1	14.0	21.8	17.7	34.4	55.7	47.1	12.4	23.5	8.4	35.2	55.6	42.1	11.6	19.9	14.9	93.6	94.5	94.0
5	35.2	94.3	44.2	13.5	27.9	13.4	35.2	38.8	35.9	18.9	25.2	22.1	35.4	35.9	35.6	26.1	30.3	3.4	93.9	94.3	94.2
6	35.0	38.3	36.1	20.4	27.7	23.7	37.6	47.1	41.7	14.3	19.4	16.9	35.2	37.0	35.6	22.6	29.8	26.9	93.8	94.1	93.9
7	37.9	53.1	45.3	13.3	20.5	13.2	46.3	50.4	48.1	13.2	14.4	0.6	35.2	43.5	38.1	13.8	22.7	17.0	93.3	93.9	93.5
8	--	--	--	--	--	--	34.7	36.2	35.7	21.0	26.4	21.2	35.4	53.2	39.9	10.7	30.4	6.8	93.3	93.6	93.5
9	34.3	36.5	35.7	22.0	26.3	13.6	35.3	45.6	38.6	14.0	21.3	17.3	35.2	38.2	35.6	20.4	30.1	24.4	93.3	93.6	93.5
10	35.2	41.6	36.8	17.7	23.9	20.7	43.0	53.6	46.8	11.1	14.8	5.5	35.1	41.6	37.2	14.2	21.2	17.2	93.4	93.5	93.5
11	40.2	42.5	41.4	11.6	17.9	8.5	35.2	36.2	35.7	20.6	28.1	19.1	35.3	49.0	38.4	11.4	30.5	14.6	93.0	93.5	93.2
12	35.0	36.5	35.7	20.3	24.0	19.0	35.4	42.9	37.7	13.5	20.7	16.6	35.0	36.6	35.6	16.0	27.1	21.8	92.5	93.1	92.8
13	35.1	44.9	37.6	13.9	20.8	17.5	35.3	45.1	37.4	12.0	26.5	14.5	35.1	40.3	36.6	12.6	29.0	10.6	91.9	92.9	92.2
14	35.0	48.9	37.1	12.6	25.3	16.4	35.2	38.9	35.9	14.5	21.8	18.3	35.1	36.0	35.6	16.8	28.7	23.8	92.2	92.6	92.4
15	35.0	49.8	38.2	13.9	19.2	17.2	35.2	37.9	35.8	14.2	23.4	12.0	34.4	36.0	35.5	13.9	25.3	11.6	91.1	92.9	91.7
16	35.1	36.1	43.7	22.2	26.1	6.3	35.3	36.6	35.7	17.4	24.9	22.0	35.0	35.3	35.6	24.6	30.3	24.2	92.4	92.9	92.6
17	35.0	40.4	35.7	16.3	26.0	19.2	35.2	40.3	35.8	14.8	22.5	13.8	35.0	36.0	35.6	20.6	25.7	15.1	92.0	92.4	92.2
18	37.8	41.0	39.3	16.6	18.1	13.5	35.2	36.1	35.7	17.2	23.3	18.1	34.4	35.8	35.6	19.7	23.7	16.9	92.0	92.4	92.4
19	35.0	40.6	36.7	16.3	21.9	18.5	34.8	35.6	35.7	20.3	23.1	15.9	35.8	36.1	35.5	18.1	25.3	16.4	91.7	92.4	92.2
20	36.0	47.0	42.4	14.9	19.7	8.8	35.3	59.0	35.7	19.4	24.0	16.6	35.1	36.0	35.6	21.0	25.9	16.4	92.3	93.5	93.1
21	36.3	41.0	41.7	11.3	22.0	16.7	35.3	39.4	36.3	17.0	21.1	13.3	35.4	36.0	35.5	19.4	28.6	12.9	93.4	93.5	93.5
22	36.9	44.8	43.2	16.8	22.0	13.8	36.4	41.3	38.8	16.7	19.5	17.4	35.0	36.1	35.6	19.4	23.3	20.0	93.1	93.6	93.3
23	37.2	43.9	40.5	19.1	23.1	20.8	35.3	59.5	36.4	17.9	27.0	12.8	35.1	46.2	36.1	13.5	22.5	12.2	93.6	94.4	94.0
24	41.4	49.7	45.9	17.0	22.0	17.9	35.2	43.0	38.8	19.1	22.9	20.8	35.4	36.1	35.7	21.1	23.4	0.2	94.3	94.8	94.5
25	42.5	50.7	46.2	16.6	20.8	18.3	35.3	53.6	39.2	13.9	25.0	16.1	34.1	36.0	35.6	21.3	26.1	23.9	94.2	94.8	94.4
26	35.1	40.9	36.5	21.8	26.3	12.1	35.3	47.2	35.7	14.6	25.2	13.4	35.1	59.0	35.6	20.1	26.2	17.8	93.8	94.3	94.0
27	36.5	51.0	43.4	14.5	22.5	15.2	35.2	40.2	35.9	19.1	23.0	20.3	35.1	37.0	35.6	16.6	24.3	18.9	93.4	93.9	93.6
28	38.7	47.4	42.7	17.0	21.2	19.3	35.2	52.8	37.0	12.4	23.0	14.2	34.7	36.1	35.6	20.1	24.7	21.1	93.5	94.2	93.9
29	38.5	55.1	42.3	13.8	22.3	13.2	35.3	45.2	36.8	16.0	22.3	20.0	35.0	45.1	36.1	13.4	26.5	11.0	93.7	94.3	94.0
30	35.0	58.5	40.5	13.0	22.7	18.8	35.2	49.6	36.0	14.8	23.2	17.3	34.9	36.7	35.6	20.8	26.2	23.0	94.0	94.3	94.2
31	35.1	40.5	36.8	21.0	26.2	23.2	33.9	41.2	36.6	17.1	22.8	18.4	34.4	36.6	35.6	25.8	25.7	21.7	92.9	94.2	93.6
Monthly Total						469.8						483.1						507.6			
Monthly Min/Max/ Avg	34.3	94.3	40.4	11.3	27.9		33.9	59.5	38.0	11.1	28.1		34.1	59.0	36.3	10.7	30.5		91.1	94.8	93.4

NOTES: - Each filter has a UV reactor

- Transmittance (%) is a grab sample of the filter effluent prior to the UV reactor of a random online filter

' -- ' indicates filter and UV reactor offline

1.2.14 Rossdale UV Disinfection - Filters 7 - 9

January 2024

Filter	7						8						9						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	35.1	37.6	35.7	17.3	21.2	19.2	35.1	36.1	35.6	21.3	26.2	24.4	35.0	36.1	35.6	20.8	25.1	14.3	92.9	93.4	93.2
2	36.6	42.5	38.5	15.0	17.8	3.1	34.8	39.8	35.8	14.1	23.5	19.7	35.1	40.0	35.7	16.7	26.8	22.8	93.2	94.0	93.7
3	35.1	36.1	35.6	20.8	29.5	15.2	35.4	38.4	36.3	14.6	17.9	1.8	35.1	43.6	37.7	15.3	21.2	17.5	93.5	94.0	93.7
4	35.1	42.4	36.6	16.4	26.7	21.7	35.1	36.0	35.6	20.3	25.5	16.6	35.0	36.1	35.6	21.9	25.8	13.3	93.6	94.5	94.0
5	37.2	43.2	40.3	16.2	19.1	8.2	35.0	36.1	35.6	20.3	25.9	21.2	35.2	36.3	35.6	20.5	26.7	23.6	93.9	94.3	94.2
6	35.1	36.1	35.6	25.2	32.7	22.9	35.2	36.0	35.6	25.3	33.0	11.9	35.3	57.8	35.8	11.4	21.3	5.8	93.8	94.1	93.9
7	33.7	36.3	35.6	18.8	27.7	22.6	35.1	36.1	35.6	22.0	31.9	26.2	34.9	36.2	35.6	25.4	29.4	17.8	93.3	93.9	93.5
8	35.0	50.8	39.6	11.3	19.4	12.5	35.8	38.1	35.6	15.1	22.6	16.4	34.4	36.2	35.6	20.2	27.3	23.1	93.3	93.6	93.5
9	35.1	36.9	35.6	24.2	28.7	21.6	35.2	36.0	35.6	25.4	29.9	4.8	35.2	41.5	37.1	14.9	20.7	15.1	93.3	93.6	93.5
10	34.8	36.4	35.6	18.2	25.1	21.3	35.2	36.1	35.6	22.7	30.3	26.2	34.9	36.2	35.6	24.6	31.7	17.6	93.4	93.5	93.5
11	35.1	40.8	38.0	10.1	18.4	11.8	35.0	36.2	35.6	15.0	22.9	18.5	34.9	36.3	35.6	18.3	26.1	21.7	93.0	93.5	93.2
12	34.9	38.7	35.6	21.8	29.7	25.4	35.5	61.5	36.3	12.7	16.1	1.1	35.1	71.1	37.2	14.6	29.8	11.2	92.5	93.1	92.8
13	34.9	38.5	35.5	14.1	22.2	17.8	--	--	--	--	--	--	35.0	36.1	35.6	20.8	29.9	25.9	91.9	92.9	92.2
14	35.0	36.1	35.6	22.0	29.7	9.1	--	--	--	--	--	--	35.1	38.3	35.6	14.9	21.0	11.5	92.2	92.6	92.4
15	35.1	37.0	35.5	17.1	25.3	22.2	--	--	--	--	--	--	35.0	36.8	35.6	20.7	30.0	22.1	91.1	92.9	91.7
16	35.0	36.7	35.6	16.9	28.8	15.0	33.9	36.0	35.6	24.0	30.5	9.3	35.1	58.5	35.6	20.9	25.7	16.3	92.4	92.9	92.6
17	34.9	36.6	35.6	20.0	27.8	14.2	35.0	35.7	35.6	19.5	29.6	21.5	34.4	39.1	35.6	16.2	29.7	24.4	92.0	92.4	92.2
18	35.2	36.2	35.5	17.2	25.1	21.4	34.9	36.1	35.6	16.8	26.0	18.2	34.8	36.2	35.6	21.7	26.6	15.2	92.0	92.4	92.4
19	35.1	35.5	35.6	17.4	24.7	12.5	34.5	35.6	35.6	22.5	25.3	20.6	35.0	36.9	35.6	20.9	25.7	19.5	91.7	92.4	92.2
20	34.6	36.8	35.6	19.7	24.8	18.1	34.7	36.4	35.6	20.0	29.0	22.2	35.0	58.9	35.6	21.1	26.0	17.6	92.3	93.5	93.1
21	35.1	37.9	36.5	17.0	25.2	19.7	35.1	37.2	35.6	17.2	26.1	20.2	35.0	37.1	35.6	18.8	24.4	16.8	93.4	93.5	93.5
22	34.9	41.7	35.9	15.5	20.5	15.9	35.0	37.7	36.1	16.8	24.0	15.8	34.8	36.3	35.7	18.5	22.8	19.7	93.1	93.6	93.3
23	35.1	55.6	36.1	11.8	22.8	13.7	35.0	36.1	35.6	20.3	25.7	20.7	35.2	37.2	35.8	20.1	22.2	10.8	93.6	94.4	94.0
24	35.1	38.0	35.8	19.8	24.7	23.0	35.2	38.3	36.4	20.3	23.5	21.3	35.0	37.4	35.8	20.0	24.5	22.4	94.3	94.8	94.5
25	35.5	37.7	36.5	20.1	22.4	12.0	35.1	36.0	35.6	23.3	26.6	17.0	34.9	36.1	36.2	21.1	26.2	12.5	94.2	94.8	94.4
26	33.8	39.2	35.6	20.1	29.4	18.2	35.1	38.3	35.6	18.6	28.6	17.2	35.0	39.3	36.2	17.0	30.0	24.6	93.8	94.3	94.0
27	34.3	39.7	37.3	16.7	21.8	10.1	34.3	36.0	35.6	21.6	25.1	23.3	35.0	36.3	35.6	20.9	25.9	15.6	93.4	93.9	93.6
28	34.8	37.3	35.7	19.2	23.6	21.5	34.4	36.1	36.3	20.5	24.8	19.5	35.1	39.8	36.2	17.1	23.6	14.9	93.5	94.2	93.9
29	35.2	35.8	35.7	19.6	25.2	19.2	35.1	36.7	35.7	19.7	24.4	18.7	35.1	36.2	35.6	20.9	27.9	18.9	93.7	94.3	94.0
30	35.1	35.7	35.7	19.9	24.9	21.2	35.1	36.5	35.6	23.5	25.8	20.2	34.9	42.6	35.6	16.6	25.3	22.4	94.0	94.3	94.2
31	35.0	36.2	35.6	20.7	24.7	22.3	35.1	36.1	35.6	18.0	23.9	21.5	34.9	36.3	35.6	20.3	24.6	22.2	92.9	94.2	93.6
Monthly Total						532.3						495.9						557.0			
Monthly Min/Max/ Avg	33.7	55.6	36.2	10.1	32.7		33.9	61.5	35.7	12.7	33.0		34.4	71.1	35.9	11.4	31.7		91.1	94.8	93.4

NOTES: - Each filter has a UV reactor

- Transmittance (%) is a grab sample of the filter effluent prior to the UV reactor of a random online filter

' -- ' indicates filter and UV reactor offline

1.2.15 E.L. Smith UV Disinfection - UV Reactors 1 - 4

January 2024

Filter	1						2						3						4						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	65.2	76.3	71.6	67.8	84.4	76.7	47.3	81.6	56.7	63.7	81.7	73.7	74.7	86.6	81.3	71.6	89.6	81.6	--	--	--	--	--	--	93.4	94.1	93.8
2	69.0	75.6	71.2	64.5	84.7	76.7	46.5	52.7	49.1	62.0	81.8	73.6	78.0	87.8	81.6	69.2	88.5	81.2	--	--	--	--	--	--	93.4	94.1	93.8
3	70.9	80.2	75.5	67.9	84.1	77.1	49.7	55.5	52.6	65.5	81.0	74.0	48.9	86.8	56.2	72.8	88.2	81.1	--	--	--	--	--	--	93.9	94.3	94.1
4	71.2	82.4	76.4	68.9	89.2	80.4	48.8	56.2	52.5	65.9	87.0	77.1	46.7	56.2	50.6	74.0	94.0	85.1	--	--	--	--	--	--	94.3	94.5	94.3
5	64.7	76.5	70.4	74.4	89.2	82.3	45.8	75.1	49.8	71.2	86.0	79.1	45.6	80.2	57.9	79.4	92.4	87.4	--	--	--	--	--	--	93.1	94.5	93.9
6	63.0	70.1	65.2	71.9	89.3	82.8	70.5	79.0	73.9	69.5	87.2	79.6	71.5	79.8	74.7	78.0	94.2	88.0	--	--	--	--	--	--	93.6	93.8	93.7
7	62.1	76.2	65.5	65.0	89.5	81.8	70.2	83.8	74.3	61.4	87.3	78.7	71.5	85.8	75.1	69.1	94.1	86.9	--	--	--	--	--	--	93.4	93.8	93.6
8	63.7	70.9	66.9	62.5	89.7	79.1	45.9	79.1	67.9	58.9	87.3	76.1	72.6	83.8	76.8	66.8	94.7	84.0	--	--	--	--	--	--	93.4	94.5	93.7
9	61.4	70.2	64.7	67.5	86.6	79.8	69.3	81.2	73.3	66.3	83.4	76.9	70.6	81.0	74.5	71.6	91.1	84.8	--	--	--	--	--	--	93.4	93.8	93.6
10	59.4	77.8	50.3	63.1	89.0	62.4	52.8	90.9	66.3	60.7	86.4	60.2	50.8	84.7	60.7	66.4	93.2	66.6	--	--	--	--	--	--	93.5	93.8	93.6
11	50.3	88.6	69.7	53.0	87.5	46.4	51.9	75.3	63.6	72.0	132.6	98.1	54.8	73.0	64.2	80.9	134.1	103.6	--	--	--	--	--	--	93.0	93.5	93.4
12	60.6	114.4	73.5	56.3	87.3	71.0	57.0	65.8	61.4	69.8	97.0	85.1	58.5	97.1	62.9	76.3	101.2	92.1	--	--	--	--	--	--	92.3	93.2	92.7
13	61.0	71.1	65.8	69.5	87.1	79.7	62.2	72.2	67.0	67.3	84.0	76.8	62.1	74.7	67.0	74.5	92.3	84.8	--	--	--	--	--	--	92.2	93.0	92.6
14	50.3	69.6	60.7	66.9	85.8	77.8	50.1	73.0	62.4	64.9	83.2	75.0	47.5	73.7	61.5	71.5	90.7	82.9	--	--	--	--	--	--	91.4	92.9	92.3
15	47.8	74.3	60.6	63.2	92.9	79.1	47.0	77.1	62.2	59.7	87.1	76.4	48.7	77.2	62.1	64.7	95.4	84.5	--	--	--	--	--	--	90.4	93.2	91.7
16	62.4	75.7	67.4	73.3	97.2	87.8	63.1	71.8	68.1	73.1	95.3	85.1	62.3	76.8	68.4	80.0	104.7	94.0	--	--	--	--	--	--	92.1	93.0	92.7
17	65.9	110.3	75.8	65.7	105.3	83.8	65.4	112.2	74.2	62.0	102.0	79.7	56.8	91.6	46.4	50.2	101.9	62.0	--	--	--	--	--	--	91.2	93.6	92.2
18	64.1	78.2	71.7	74.2	100.6	86.5	66.4	81.9	74.5	69.7	97.2	82.2	47.0	86.5	57.3	56.6	76.5	66.0	--	--	--	--	--	--	92.9	93.6	93.0
19	62.3	72.4	65.8	85.6	104.3	95.8	63.4	75.0	68.1	81.8	100.2	91.3	64.0	87.4	80.7	65.4	79.4	73.1	--	--	--	--	--	--	92.7	93.3	92.9
20	70.6	84.1	76.5	80.2	103.8	94.8	72.2	86.9	79.4	75.2	97.7	90.4	48.6	64.0	53.1	61.2	78.0	72.4	--	--	--	--	--	--	93.2	94.1	93.7
21	69.7	77.9	72.8	84.4	103.5	94.9	72.5	82.1	75.5	81.1	101.7	90.5	48.9	55.3	51.1	65.7	79.1	72.4	--	--	--	--	--	--	93.6	93.9	93.7
22	70.2	84.7	77.9	84.6	105.0	94.9	73.1	86.8	80.6	80.4	99.8	90.5	50.2	58.6	54.6	65.8	79.2	72.1	--	--	--	--	--	--	93.6	94.1	93.8
23	76.0	84.4	80.3	83.3	105.5	95.9	79.4	87.6	83.1	76.2	100.4	91.5	53.3	60.0	56.4	62.6	79.4	73.1	--	--	--	--	--	--	94.0	94.4	94.3
24	72.1	80.9	75.5	88.9	107.7	98.9	73.9	85.1	78.0	84.2	101.2	94.5	49.4	58.3	52.6	68.9	80.9	75.6	--	--	--	--	--	--	93.6	94.4	94.1
25	73.3	85.3	77.7	87.4	105.8	97.9	75.9	87.0	80.8	83.7	104.9	93.5	51.7	60.1	54.4	67.5	80.6	74.7	--	--	--	--	--	--	94.0	94.4	94.2
26	71.9	79.9	75.6	85.5	108.0	97.0	74.7	83.0	77.9	81.0	101.4	92.7	49.8	57.3	52.7	64.4	80.5	74.1	--	--	--	--	--	--	93.6	94.1	93.8
27	70.6	84.4	76.9	84.4	108.2	97.0	74.5	87.6	79.8	80.3	103.1	92.5	50.1	57.3	53.5	65.5	81.9	74.1	--	--	--	--	--	--	93.8	94.4	93.9
28	45.6	88.8	67.0	74.8	107.4	92.9	45.3	85.9	66.5	71.2	102.0	88.6	54.1	62.4	57.6	57.4	79.7	70.9	--	--	--	--	--	--	94.2	94.6	94.4
29	44.6	198.3	63.7	58.8	101.3	14.5	44.5	193.8	64.6	54.8	96.8	13.7	54.0	224.2	86.4	59.0	77.0	11.0	--	--	--	--	--	--	94.2	94.2	94.2
30	47.2	72.7	51.4	60.2	96.7	84.4	48.4	72.3	52.2	57.5	91.5	81.1	59.4	87.9	64.5	45.5	72.6	64.3	--	--	--	--	--	--	93.3	95.1	94.4
31	46.8	241.1	67.4	39.1	117.5	62.7	54.4	202.7	65.1	36.0	87.1	34.4	45.7	252.3	54.7	31.5	115.2	57.5	--	--	--	--	--	--	93.3	94.9	94.6
Monthly Total						2,512.7						2,452.6						2,361.8						0.0			
Monthly Min/Max/ Avg	44.6	241.1	69.4	39.1	117.5		44.5	202.7	67.8	36.0	132.6		45.6	252.3	62.9	31.5	134.1		--	--	--	--	--		90.4	95.1	93.6

NOTES: ' -- ' indicates UV reactor offline

- Transmittance (%) is a grab sample of the combined filter effluent prior to the UV reactor

1.2.16 Log Removal

January 2024

Day	Rossdale									E.L. Smith								
	Log Removal									Log Removal								
	Giardia			Virus			*Cryptosporidium*			*Giardia*			Virus			*Cryptosporidium*		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	7.8	7.9	7.8	14	16	15	6.5	6.5	6.5	6.7	6.7	6.7	6.7	8.3	7.6	6.5	6.5	6.5
2	7.7	8.0	7.8	13	16	14	6.5	6.5	6.5	6.7	6.7	6.7	6.8	8.2	7.6	6.5	6.5	6.5
3	7.8	7.9	7.9	14	16	15	6.5	6.5	6.5	6.7	6.7	6.7	6.8	8.3	7.7	6.5	6.5	6.5
4	7.6	7.9	7.8	14	15	15	6.5	6.5	6.5	6.7	6.7	6.7	6.9	8.4	7.6	6.5	6.5	6.5
5	7.6	7.8	7.7	13	15	14	6.5	6.5	6.5	6.7	6.7	6.7	6.8	8.4	7.7	6.5	6.5	6.5
6	7.6	7.7	7.6	12	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.6	8.4	7.7	6.5	6.5	6.5
7	7.6	7.8	7.7	12	13	13	6.5	6.5	6.5	6.7	6.7	6.7	7.0	8.4	7.6	6.5	6.5	6.5
8	7.6	7.8	7.7	12	14	13	6.5	6.5	6.5	6.7	6.7	6.7	7.1	8.6	7.8	6.5	6.5	6.5
9	7.6	8.3	7.8	13	16	14	6.5	6.5	6.5	6.7	6.8	6.7	7.2	13	8.2	6.5	6.5	6.5
10	7.6	7.7	7.7	13	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.6	9.0	7.5	6.5	6.5	6.5
11	7.6	7.7	7.6	13	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.7	8.1	7.5	6.5	6.5	6.5
12	7.6	8.1	7.8	13	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.6	8.4	7.4	6.5	6.5	6.5
13	7.6	8.1	7.9	13	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.6	8.2	7.5	6.5	6.5	6.5
14	7.8	8.1	7.8	13	15	13	6.5	6.5	6.5	6.7	6.7	6.7	7.0	8.4	7.6	6.5	6.5	6.5
15	7.7	8.5	8.2	13	16	14	6.5	7.0	6.8	6.7	7.2	7.0	6.5	9.4	8.3	6.5	7.0	6.8
16	8.3	8.5	8.4	14	16	14	7.0	7.0	7.0	7.2	7.2	7.2	7.2	8.8	7.9	7.0	7.0	7.0
17	8.2	8.5	8.3	14	16	15	7.0	7.0	7.0	7.1	7.4	7.2	5.9	14	8.8	7.0	7.0	7.0
18	8.4	8.5	8.5	15	16	15	7.0	7.0	7.0	7.1	7.2	7.2	6.2	8.3	7.5	7.0	7.0	7.0
19	8.4	8.5	8.5	15	16	16	7.0	7.0	7.0	7.2	7.2	7.2	6.9	8.3	7.7	7.0	7.0	7.0
20	8.4	8.5	8.5	15	16	15	7.0	7.0	7.0	7.1	7.2	7.2	6.3	8.4	7.7	7.0	7.0	7.0
21	8.4	8.7	8.6	15	18	16	7.0	7.0	7.0	7.1	7.2	7.2	6.7	8.6	7.6	7.0	7.0	7.0
22	8.2	8.6	8.4	15	18	17	7.0	7.0	7.0	7.1	7.2	7.2	6.5	9.0	7.4	7.0	7.0	7.0
23	8.1	8.2	8.1	14	15	15	7.0	7.0	7.0	7.1	7.2	7.2	5.9	8.2	7.1	7.0	7.0	7.0
24	8.1	8.2	8.2	14	15	15	7.0	7.0	7.0	7.1	7.2	7.1	6.3	8.0	7.1	7.0	7.0	7.0
25	8.1	8.5	8.3	14	16	15	7.0	7.0	7.0	7.1	7.2	7.2	6.3	8.0	7.1	7.0	7.0	7.0
26	8.3	8.4	8.4	14	15	14	7.0	7.0	7.0	7.1	7.2	7.1	6.3	7.6	6.9	7.0	7.0	7.0
27	8.3	8.5	8.4	15	16	16	7.0	7.0	7.0	7.1	7.2	7.2	6.6	8.0	7.3	7.0	7.0	7.0
28	8.4	8.5	8.5	15	17	16	7.0	7.0	7.0	7.1	7.2	7.2	6.7	8.1	7.4	7.0	7.0	7.0
29	7.7	8.4	8.2	15	16	15	7.0	7.0	7.0	7.2	7.2	7.2	6.8	7.6	7.1	7.0	7.0	7.0
30	7.7	7.9	7.8	14	15	15	7.0	7.0	7.0	7.1	7.2	7.2	6.8	9.0	8.1	7.0	7.0	7.0
31	7.7	7.9	7.8	14	16	15	7.0	7.0	7.0	7.1	7.3	7.2	7.0	15	8.8	7.0	7.0	7.0
Monthly Min/Max/Avg	7.6	8.7	8.1	12	18	14	6.5	7.0	6.8	6.7	7.4	7.0	5.9	15	7.6	6.5	7.0	6.8

NOTES: ' -- ' indicates plant offline

1.2.17 Liquid Alum Chemical Consumption

January 2024

Day	Dosage (mg/L)			Consumption (kg)			
	Rossdale		E.L. Smith	Rossdale			E.L. Smith
	Plant 1	Plant 2		Plant 1	Plant 2	Plant Total	
1	--	6.00	6.55	--	1,608	1,608	3,521
2	--	6.00	6.55	--	1,589	1,589	3,523
3	--	6.00	6.56	--	1,605	1,605	3,526
4	--	6.01	6.53	--	1,685	1,685	3,678
5	--	6.00	6.53	--	1,831	1,831	3,786
6	--	6.00	6.55	--	1,855	1,855	3,793
7	--	6.01	6.85	--	1,738	1,738	3,971
8	--	6.00	7.15	--	1,731	1,731	3,963
9	--	6.06	6.74	--	1,816	1,816	3,794
10	--	6.00	6.69	--	1,855	1,855	3,057
11	--	5.99	7.18	--	1,852	1,852	4,158
12	--	6.00	7.59	--	1,856	1,856	4,387
13	--	6.60	7.56	--	1,853	1,853	4,276
14	--	7.00	8.27	--	1,876	1,876	4,637
15	--	25.1	36.7	--	7,482	7,482	21,200
16	--	43.8	54.5	--	13,531	13,531	34,150
17	--	44.1	59.0	--	14,061	14,061	30,271
18	--	43.2	57.0	--	14,249	14,249	31,579
19	--	41.6	54.6	--	13,726	13,726	33,084
20	--	42.1	55.3	--	13,861	13,861	33,165
21	--	41.7	51.6	--	13,508	13,508	30,939
22	--	40.0	49.2	--	13,140	13,140	29,482
23	--	40.0	41.0	--	13,195	13,195	24,872
24	--	40.0	34.4	--	13,195	13,195	21,322
25	--	38.1	44.0	--	12,573	12,573	27,233
26	--	37.7	44.9	--	12,439	12,439	27,855
27	--	34.9	42.8	--	11,524	11,524	26,244
28	--	32.8	40.1	--	10,826	10,826	23,422
29	2.62	30.9	32.2	34	10,354	10,388	3,657
30	28.9	29.0	38.0	3,090	8,985	12,075	20,443
31	28.4	28.6	39.0	3,098	8,660	11,758	19,043
Monthly Total				6,222	230,059	236,281	492,032
Monthly Avg	20.0	23.2	28.1	2,074	7,421	7,622	15,872

NOTES : ' -- ' indicates system offline

- Liquid alum consumption (kg) at 48.5% by weight (solution delivered to sites at a concentration of 48.5%)
- NSF limit for liquid alum is **194 mg/L**

1.2.18 Primary Polymer Chemical Consumption

January 2024

Day	Dosage (mg/L)			Consumption (kg)			
	Rossdale		E.L. Smith	Rossdale			E.L. Smith
	Plant 1	Plant 2		Plant 1	Plant 2	Plant Total	
1	--	0.10	--	--	13	13	--
2	--	0.10	--	--	13	13	--
3	--	0.10	--	--	13	13	--
4	--	0.10	--	--	14	14	--
5	--	0.10	--	--	15	15	--
6	--	0.10	--	--	15	15	--
7	--	0.10	--	--	14	14	--
8	--	0.10	--	--	14	14	--
9	--	0.10	--	--	15	15	--
10	--	0.10	--	--	15	15	--
11	--	0.10	--	--	15	15	--
12	--	0.10	--	--	15	15	--
13	--	0.10	--	--	14	14	--
14	--	0.10	0.05	--	13	13	13
15	--	0.28	0.17	--	41	41	47
16	--	0.30	0.25	--	45	45	76
17	--	0.28	0.35	--	44	44	87
18	--	0.20	0.24	--	32	32	64
19	--	0.20	0.20	--	32	32	59
20	--	0.20	0.20	--	32	32	58
21	--	0.25	0.20	--	40	40	58
22	--	0.33	0.19	--	53	53	55
23	--	0.35	0.15	--	56	56	45
24	--	0.35	0.13	--	56	56	38
25	--	0.35	0.16	--	56	56	48
26	--	0.35	0.18	--	56	56	54
27	--	0.35	0.16	--	56	56	48
28	--	0.35	0.16	--	56	56	45
29	0.03	0.35	0.16	0	57	57	9
30	0.35	0.35	0.16	18	53	71	42
31	0.34	0.34	0.38	18	50	69	90
Monthly Total				37	1,010	1,046	936
Monthly Avg	0.24	0.21	0.19	12	33	34	52

NOTES: ' -- ' indicates system offline or primary polymer not being used
- Primary polymer consumption (kg) at 100% by weight mixed at the sites to required solution
- NSF limit for Magnafloc LT 27AG is **1.00 mg/L**

1.2.19 Carbon Chemical Consumption

January 2024

Day	Dosage (mg/L)			Consumption (kg)			
	Rossdale		E.L. Smith	Rossdale			E.L. Smith
	Plant 1	Plant 2		Plant 1	Plant 2	Plant Total	
1	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--
31	--	--	--	--	--	--	--
Monthly Total				--	--	--	--
Monthly Avg	--	--	--	--	--	--	--

NOTES: ' -- ' indicates carbon not being used
- Carbon consumption (kg) at 100% by weight (mixed at the sites)
- NSF limit for Carbon is **250 mg/L**

1.2.20 Sodium Hypochlorite Chemical Consumption

January 2024

Day	Rossdale					E.L. Smith	
	Dosage (mg/L)		Consumption (kg)			Dosage (mg/L)	Consumption (kg)
	Plant 1	Plant 2	Plant 1	Plant 2	Plant Total		
1	--	3.20	--	51,954	54,177	3.12	106,997
2	--	3.10	--	49,785	52,358	3.13	107,318
3	--	2.98	--	48,389	50,689	3.11	106,554
4	--	2.85	--	48,457	50,969	3.12	112,263
5	--	2.80	--	51,807	55,050	3.15	116,320
6	--	2.80	--	52,540	56,268	3.22	118,944
7	--	2.88	--	50,546	54,789	3.25	120,292
8	--	2.93	--	51,311	55,340	3.18	112,505
9	--	2.90	--	52,666	56,008	3.13	112,521
10	--	2.90	--	54,354	57,483	3.19	92,862
11	--	2.92	--	54,734	58,360	3.16	116,720
12	--	3.00	0	56,255	61,177	3.08	113,599
13	--	3.15	--	53,635	58,539	3.13	113,033
14	--	3.22	--	52,358	56,974	3.28	117,252
15	--	3.20	--	57,804	62,719	3.34	122,973
16	--	3.12	--	58,536	62,475	3.15	125,871
17	--	3.16	--	61,096	65,146	3.50	114,699
18	--	3.25	--	64,986	69,773	3.50	123,521
19	--	3.25	--	65,017	69,452	3.43	132,540
20	--	3.20	--	63,911	65,841	3.25	124,532
21	--	3.18	--	62,538	64,189	3.18	121,741
22	--	2.85	--	56,741	60,664	3.14	119,965
23	--	2.80	--	56,013	60,898	2.97	114,870
24	--	2.80	--	55,979	60,633	3.04	120,286
25	--	2.98	--	59,509	63,850	3.24	128,014
26	--	3.06	--	61,089	63,920	3.38	133,842
27	--	3.09	--	61,729	64,990	3.37	131,652
28	--	3.00	--	59,981	63,029	3.36	125,187
29	0.02	2.91	17	59,071	62,487	3.33	24,148
30	2.53	2.99	16,378	56,049	78,262	3.35	115,208
31	2.86	3.06	18,930	56,107	80,448	3.14	98,027
Monthly Total			35,325	1,744,952	1,896,957		3,544,250
Monthly Avg	1.80	3.02	8,831	56,289	61,192	3.22	114,331

NOTES: ' -- ' indicates system offline

- Sodium hypochlorite consumption (kg) at 0.8% by weight (sodium hypochlorite generated onsite at a concentration of 0.8%)
- Plant Total Consumption is the combined addition of Plant 1, Plant 2 and Post Filter Trim.
- NSF limit for Sodium Hypochlorite generated onsite is **10 mg/L**

1.2.21 Filter Polymer Chemical Consumption

January 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.39	0.54	49	140
2	0.39	0.50	47	130
3	0.39	0.51	48	132
4	0.39	0.51	51	140
5	0.39	0.50	55	140
6	0.39	0.50	55	140
7	0.39	0.55	52	156
8	0.39	0.60	52	162
9	0.39	0.61	54	166
10	0.39	0.59	56	132
11	0.39	0.60	56	169
12	0.39	0.61	55	170
13	0.39	0.63	51	173
14	0.39	0.69	48	188
15	0.36	0.54	49	150
16	0.15	0.10	21	32
17	0.16	0.14	24	36
18	0.27	0.10	41	27
19	0.35	0.10	54	30
20	0.31	0.10	47	29
21	0.28	0.10	42	29
22	0.23	0.10	34	30
23	0.19	0.10	29	30
24	0.19	0.10	29	30
25	0.19	0.10	29	31
26	0.19	0.10	29	31
27	0.23	0.10	34	30
28	0.23	0.10	34	28
29	0.19	0.10	29	5
30	0.20	0.10	36	26
31	0.19	0.15	36	36
Monthly Total			1,324	2,751
Monthly Avg	0.30	0.33	43	89

NOTES: ' -- ' indicates system offline

- Filter polymer consumption (kg) at 100% by weight mixed at the sites to required solution
- NSF limit for Magnafloc LT 7981 is **20 mg/L**
- NSF limit for Magnafloc LT 7995 is **25 mg/L**

1.2.22 Aqua Ammonia Chemical Consumption

January 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.65	--	430	--
2	0.65	--	419	--
3	0.65	--	426	--
4	0.65	--	447	--
5	0.65	--	484	--
6	0.65	--	491	--
7	0.65	--	465	--
8	0.65	--	459	--
9	0.65	--	478	--
10	0.65	--	496	--
11	0.65	--	492	--
12	0.65	--	491	--
13	0.65	--	447	--
14	0.65	--	421	--
15	0.65	--	467	--
16	0.65	--	484	--
17	0.65	--	507	--
18	0.65	--	521	--
19	0.65	--	527	--
20	0.65	--	521	--
21	0.65	--	504	--
22	0.65	--	508	--
23	0.65	--	514	--
24	0.65	--	510	--
25	0.65	--	510	--
26	0.65	--	511	--
27	0.65	--	508	--
28	0.65	--	512	--
29	0.65	--	518	--
30	0.65	--	632	--
31	0.65	--	641	--
Monthly Total			15,342	--
Monthly Avg	0.65	--	495	--

NOTES: ' -- ' indicates system offline

- Aqua ammonia consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 19.0%)
- NSF limit for Aqua Ammonia is **2.85 mg/L**

1.2.22-1 LAS Ammonia Chemical Consumption

January 2024

Day	Dosage (mg/L)	Consumption (kg)
	E.L. Smith	E.L. Smith
1	0.65	1,544
2	0.65	1,543
3	0.65	1,546
4	0.65	1,615
5	0.65	1,657
6	0.65	1,668
7	0.65	1,647
8	0.65	1,595
9	0.65	1,609
10	0.65	1,257
11	0.65	1,656
12	0.65	1,655
13	0.66	1,611
14	0.65	1,572
15	0.65	1,601
16	0.65	1,781
17	0.61	974
18	0.66	1,568
19	0.65	1,736
20	0.66	1,719
21	0.66	1,723
22	0.66	1,720
23	0.65	1,739
24	0.65	1,796
25	0.65	1,774
26	0.65	1,758
27	0.65	1,759
28	0.65	1,684
29	0.62	248
30	0.65	1,530
31	0.64	1,011
Monthly Total		48,296
Monthly Avg	0.65	1,558

NOTES: ' -- ' indicates system offline
- LAS ammonia consumption (kg) at 100% by weight (solution delivered to sites at a concentration of **41.0%**)
- NSF limit for LAS Ammonia is **16.4 mg/L**

1.2.23 Caustic Soda Chemical Consumption

January 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	--	--	--	--
2	--	--	--	--
3	--	--	--	--
4	--	--	--	--
5	--	--	--	--
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	1.08	4.58	262	2,201
16	6.36	13.1	1,586	6,998
17	8.41	12.8	2,149	4,030
18	7.98	14.6	2,127	6,847
19	7.98	13.9	2,157	7,247
20	7.79	14.2	2,132	7,325
21	7.87	13.0	2,053	6,687
22	7.04	12.7	1,873	6,536
23	6.71	10.6	1,803	5,511
24	6.69	8.17	1,787	4,397
25	6.52	10.8	1,768	5,737
26	6.12	11.1	1,643	5,867
27	5.65	10.9	1,487	5,726
28	5.24	10.2	1,420	5,169
29	4.49	7.31	1,178	573
30	3.20	7.22	1,034	3,318
31	3.85	8.70	1,273	2,689
Monthly Total			27,734	86,856
Monthly Avg	6.06	10.8	1,631	5,109

NOTES: ' -- ' indicates system offline
- Caustic soda consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 50.0%)
- NSF limit for Caustic Soda is **50 mg/L**

1.2.24 Fluoride Chemical Consumption
January 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.62	0.67	357	712
2	0.63	0.66	352	701
3	0.63	0.66	360	703
4	0.63	0.66	378	735
5	0.62	0.66	401	753
6	0.61	0.66	402	758
7	0.61	0.66	380	749
8	0.61	0.66	375	725
9	0.61	0.66	391	732
10	0.61	0.66	406	571
11	0.61	0.65	402	740
12	0.61	0.64	402	730
13	0.61	0.64	366	709
14	0.61	0.64	344	693
15	0.61	0.64	382	706
16	0.61	0.64	396	784
17	0.61	0.62	415	444
18	0.61	0.68	425	732
19	0.60	0.68	424	812
20	0.60	0.68	419	800
21	0.60	0.66	406	781
22	0.59	0.66	400	780
23	0.58	0.66	402	789
24	0.59	0.65	403	806
25	0.59	0.65	403	793
26	0.58	0.65	395	785
27	0.56	0.64	381	774
28	0.55	0.64	381	742
29	0.56	0.61	388	109
30	0.56	0.64	474	675
31	0.56	0.63	481	446
Monthly Total			12,292	21,766
Monthly Avg	0.60	0.65	397	702

NOTES: ' -- ' indicates system offline
- Fluoride consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 21.8%)
- NSF limit for Fluoride is **1.308 mg/L**

1.2.25 Sodium Bisulfite (SBS) Chemical Consumption

January 2024

Day	Dosage (mg/L)		Consumption (kg)		De-chlorinated Waste Stream to Outfall (ML)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	25.6	10.7	783	1,104	12	39
2	20.8	16.1	521	1,788	9.6	42
3	29.9	19.7	779	2,159	10	42
4	26.7	17.3	781	1,989	11	44
5	22.0	15.9	785	2,005	14	48
6	22.6	13.2	652	1,580	11	44
7	23.3	12.9	647	1,612	11	48
8	22.2	11.2	652	1,323	11	45
9	15.5	14.6	389	1,747	9.6	45
10	20.7	19.2	638	2,810	12	56
11	20.6	15.9	650	2,047	12	49
12	18.8	14.6	650	1,791	13	47
13	21.3	13.1	650	1,672	12	49
14	22.6	12.1	780	1,661	13	52
15	19.5	13.1	781	2,117	15	61
16	23.2	13.0	1,172	1,958	19	57
17	20.8	19.1	910	5,742	17	133
18	24.9	13.8	1,302	2,004	20	55
19	24.4	14.3	1,173	1,927	18	51
20	23.6	13.9	1,302	1,880	21	54
21	24.9	13.2	1,431	1,879	22	54
22	16.3	13.3	780	1,862	18	53
23	19.8	15.1	1,041	2,160	20	54
24	15.7	15.5	729	2,012	18	49
25	17.1	13.5	939	1,862	21	52
26	17.8	12.6	939	1,846	20	56
27	18.0	13.3	939	1,981	20	56
28	15.4	13.3	728	1,710	18	48
29	14.7	21.9	1,041	2,133	27	37
30	13.9	17.5	1,044	2,276	29	50
31	15.9	14.2	833	4,139	20	112
Monthly Total			26,440	64,775	505	1,683
Monthly Avg	20.6	14.7	853	2,090	16	54

NOTES: ' -- ' indicates plant offline

- Sodium bisulfite consumption (kg) at 38% by weight (solution delivered to sites at a concentration of 38.0%)

1.2.26 Rossdale Waste Stream Data

January 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	Total	De-Chlorin'd Waste Stream 3			De-Chlorin'd Waste Stream 7		
Volume (ML)		213	0.0	202	51	0.4	467	60.14			444.96		
Solids (kg)	TSS	14,932	0	15,432			30,364						
	Aluminium	10,264	0	5,342			15,606						
# of Bypasses						0		Min	Max	Avg	Min	Max	Avg
pH								6.8	8.0	7.6	6.6	8.0	7.8
Total Chlorine (mg/L)								0.00	0.00	0.00	0.00	0.00	0.00
Sulfite (mg/L)								1.96	20.0	12.2	1.84	20.0	10.00

NOTES: * Estimate value for the waste stream volume and calculated value for the waste stream solids
- Clarifier washdown volume(s) estimated for clarifier cleaning
- LLP flush, HLP cooling are not applicable to the Rossdale WTP

1.2.27 E.L. Smith Waste Stream Data

January 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	LLP Flush	HLP Cooling	Total	De-chlorinated Waste flow to		
Volume (ML)		597	0.0	504	319	157	0.6	24	1,602	1,683		
Solids (kg)	TSS	113,335	0	37,104					150,440			
	Aluminium	21,292	0	12,844					34,136			
# of Bypasses						5				Min	Max	Avg
pH										7.16	7.80	7.48
Total Chlorine (mg/L)										0.00	0.00	0.00
Sulphite (mg/L)										0.08	20.0	5.55

NOTES: * Estimate value for the waste stream volume and calculated value for the waste stream solids
- Clarifier washdown volume(s) estimated for clarifer cleaning
- Estimated chlorinated waste stream to outfall for dechlorination

1.2.28 Demand/Production Statistics

January 2024

Month	ROSSDALE ZONE			E.L.SMITH ZONE			SYSTEM TOTAL			RESERVOIR PUMPAGE		
	Monthly Prod'n (ML)	Max Daily Prod'n (ML)	Peak Daily Demand (ML)	Monthly Prod'n (ML)	Max Daily Prod'n (ML)	Peak Daily Demand (ML)	Monthly Prod'n (ML)	Max Daily Prod'n (ML)	Peak Daily Demand (ML)	Rossdale Zone (ML)	E.L.Smith Zone (ML)	Total (ML)
JANUARY	4,226	179	222	6,762	253	249	10,989	395	379	1,452	2,466	3,918

2024 - HIGH 5-DAY DEMAND

	PLANTS PROD (ML/d)	RES. GAIN / LOSS (%)	RES. GAIN / LOSS (ML)	TOTAL DEMAND (ML)
21-Jan-2024	373	-1.0	-6.3	379
22-Jan-2024	380	1.9	11.7	368
23-Jan-2024	381	2.7	16.9	364
24-Jan-2024	395	4.5	28.2	367
25-Jan-2024	388	3.1	19.6	369
			AVERAGE:	**369**

Year to Date Data	2024	2023	% CHANGE
TOTAL PRODUCTION TO DATE (ML)	10,989	11,032	(0.4)
AVG. DAILY DEMAND TO DATE (ML)	358	356	0.6
PEAK DAILY DEMAND TO DATE (ML)	379	365	3.9
PEAK HOURLY DEMAND TO DATE (ML)	494	536	(7.9)
HIGH 5-DAY AVERAGE TO DATE (ML)	369	360	2.6

Peak daily demand of 379 ML/d occurred on January 21, 2024

Peak hourly demand of 494 ML/d occurred on January 27, 2024 at 11:00-12:00

1.2.29 Reservoir Chlorine Residual (mg/L) - Part 1

January 2024

Reservoir	Papaschase 1			Ormsby			Clareview Discharge			Millwoods Discharge			Kaskitayo			Discovery Park		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1.74	1.96	1.77	1.92	2.03	1.94	1.59	1.86	1.82	1.94	2.03	1.97	1.77	1.89	1.86	1.38	1.49	1.44
2	1.76	1.98	1.77	1.92	2.01	1.94	1.76	1.83	1.81	1.95	2.02	1.97	1.79	1.89	1.86	1.15	1.47	1.41
3	1.73	1.98	1.75	1.90	1.95	1.93	1.75	1.87	1.79	1.94	2.05	1.97	1.83	1.91	1.88	1.32	1.62	1.47
4	1.71	1.91	1.73	1.90	2.04	1.94	1.74	1.82	1.78	1.96	2.09	1.99	1.83	1.92	1.89	1.51	1.63	1.59
5	1.69	1.95	1.71	1.94	2.03	1.96	1.66	1.82	1.79	1.95	2.05	1.98	1.76	2.08	1.89	1.35	1.61	1.57
6	1.71	2.00	1.73	1.93	2.01	1.97	1.74	1.88	1.79	1.97	2.03	2.00	1.80	1.92	1.89	1.48	1.59	1.56
7	1.74	1.93	1.76	1.94	2.06	1.97	1.75	1.85	1.78	1.96	2.03	1.99	1.83	1.93	1.89	1.26	1.58	1.54
8	1.73	1.97	1.75	1.86	2.03	1.96	1.73	1.80	1.77	1.97	2.05	1.99	1.85	1.93	1.89	1.43	1.54	1.50
9	1.74	1.92	1.82	1.93	1.97	1.95	1.63	1.83	1.77	1.95	2.01	1.97	1.86	1.88	1.87	1.42	1.53	1.49
10	1.68	1.72	1.70	1.92	1.99	1.94	1.74	1.83	1.78	1.94	2.00	1.96	1.80	1.88	1.85	1.44	1.61	1.54
11	1.66	1.69	1.66	1.92	1.99	1.96	1.71	1.81	1.75	1.94	2.01	1.97	1.80	1.91	1.87	1.52	1.62	1.59
12	1.67	1.96	1.69	1.94	2.03	1.99	1.74	1.76	1.75	1.96	2.07	1.99	1.84	1.92	1.89	1.42	1.60	1.57
13	1.65	1.96	1.73	1.97	2.02	1.99	1.63	1.78	1.73	1.96	2.02	1.99	1.84	1.90	1.88	1.46	1.55	1.53
14	1.73	1.96	1.74	1.95	2.00	1.98	1.67	1.74	1.72	1.95	2.02	1.98	1.86	1.90	1.89	1.48	1.55	1.52
15	1.70	1.91	1.73	1.91	2.01	1.96	1.60	1.73	1.69	1.97	2.05	1.98	1.88	1.92	1.88	1.43	1.53	1.50
16	1.67	1.94	1.74	1.92	1.99	1.96	1.68	1.78	1.72	1.95	2.02	1.97	1.75	1.94	1.89	1.44	1.52	1.49
17	1.62	1.95	1.74	1.93	1.98	1.95	1.57	1.79	1.73	1.91	1.99	1.95	1.71	1.92	1.86	1.44	1.52	1.49
18	1.68	1.73	1.69	1.92	1.98	1.94	1.66	1.77	1.72	1.91	1.98	1.94	1.79	1.89	1.85	1.41	1.50	1.47
19	1.59	1.98	1.71	1.85	2.02	1.92	1.65	1.82	1.76	1.93	2.04	1.94	1.84	1.90	1.86	1.17	1.50	1.47
20	1.60	1.85	1.69	1.91	2.04	1.94	1.73	1.78	1.75	1.93	2.05	1.96	1.76	1.94	1.88	1.37	1.48	1.45
21	1.67	1.92	1.70	1.94	2.07	1.97	1.69	1.81	1.76	1.93	2.04	1.97	1.73	1.95	1.88	1.23	1.53	1.49
22	1.70	1.94	1.73	1.94	2.07	1.97	1.68	1.84	1.77	1.95	2.03	1.98	1.80	1.95	1.90	1.41	1.53	1.48
23	--	--	--	1.93	2.04	1.95	1.58	1.79	1.76	1.95	2.04	1.98	1.69	1.98	1.90	1.18	1.49	1.40
24	1.67	1.83	1.69	1.91	1.98	1.94	1.71	1.80	1.76	1.92	1.99	1.95	1.76	1.91	1.87	1.36	1.49	1.44
25	1.65	1.86	1.68	1.88	1.98	1.93	1.68	1.85	1.76	1.92	1.98	1.94	1.73	1.90	1.85	1.43	1.54	1.49
26	1.66	1.94	1.69	1.90	2.07	1.93	1.67	1.82	1.75	1.90	1.97	1.93	1.77	1.86	1.84	1.31	1.57	1.51
27	1.59	1.89	1.69	1.91	1.97	1.94	1.65	1.82	1.76	1.90	1.95	1.93	1.73	1.90	1.84	1.27	1.51	1.46
28	1.68	1.90	1.70	1.90	2.00	1.93	1.73	1.76	1.75	1.89	1.98	1.92	1.70	1.90	1.84	1.38	1.48	1.44
29	1.55	1.92	1.69	1.89	1.97	1.93	1.68	1.78	1.73	1.87	1.99	1.91	1.77	1.91	1.84	1.22	1.46	1.42
30	1.63	1.71	1.66	1.88	1.92	1.90	1.58	1.75	1.70	1.86	1.97	1.94	1.73	1.90	1.85	1.29	1.44	1.39
31	1.61	1.84	1.63	1.91	1.98	1.92	1.60	1.76	1.69	1.91	1.99	1.95	1.69	1.88	1.83	1.12	1.42	1.39
Monthly Min/Max/Avg	1.55	2.00	1.72	1.85	2.07	1.95	1.57	1.88	1.75	1.86	2.09	1.96	1.69	2.08	1.87	1.12	1.63	1.49

NOTES: '--' Indication Analyzer Offline

1.2.30 Reservoir Chlorine Residual (mg/L) - Part 2

January 2024

Reservoir	Rosslyn 1			Londonderry			N. Jasper Place			Rosslyn 2			Thorncliffe			Blackmud Creek		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1				1.73	1.96	1.86	1.56	1.87	1.58	1.77	2.18	1.93	1.69	2.00	1.72	1.61	1.66	1.64
2	2.16	2.19	2.16	1.71	1.93	1.85	1.57	1.88	1.59	1.92	1.97	1.93	1.69	1.99	1.71	1.61	1.90	1.74
3				1.78	1.94	1.86	1.57	1.89	1.59	1.86	2.22	1.94	1.69	2.03	1.71	1.71	1.86	1.79
4				1.72	1.99	1.86				1.93	2.10	1.94				1.70	1.83	1.77
5	--	--	--	1.58	1.97	1.86	--	--	--	1.93	2.27	1.95	--	--	--	1.70	1.82	1.76
6	--	--	--	1.66	2.00	1.87	1.55	1.91	1.58	1.92	2.21	1.95	1.57	2.01	1.71	1.72	1.85	1.79
7	2.15	2.15	2.15	1.66	1.94	1.87	--	--	--	1.93	2.16	1.95	--	--	--	1.72	1.86	1.79
8	2.10	2.26	2.15	1.68	1.96	1.88	1.53	1.88	1.56	1.89	2.20	1.93	1.69	2.00	1.72	1.72	1.84	1.78
9	--	--	--	1.84	2.05	1.91	1.52	1.86	1.55	1.87	2.23	1.92	1.69	1.99	1.71	1.71	1.84	1.78
10	--	--	--	1.74	1.97	1.90	1.47	1.85	1.57	1.89	2.17	1.93	1.70	1.97	1.72	1.69	1.82	1.76
11	--	--	--	1.82	2.05	1.92	1.58	1.86	1.60	1.89	2.16	1.95	1.68	2.05	1.69	1.66	1.79	1.74
12	--	--	--	1.77	1.97	1.90	1.61	1.93	1.63	1.92	2.19	1.95	1.73	2.01	1.74	1.68	1.81	1.76
13	--	--	--	1.70	1.94	1.89	--	--	--	1.92	2.19	1.96	1.72	2.00	1.73	1.70	1.82	1.76
14	--	--	--	1.74	1.97	1.89	1.59	1.90	1.61	1.97	2.17	1.99	1.71	2.01	1.73	1.70	1.80	1.75
15	--	--	--	1.71	1.97	1.89	--	--	--	1.95	2.19	1.97	1.66	2.00	1.71	1.69	1.82	1.76
16	2.23	2.26	2.24	1.82	2.12	1.94	1.55	1.90	1.57	1.96	2.20	2.00	1.75	1.94	1.84	1.71	1.83	1.77
17	2.22	2.31	2.24	1.77	2.04	1.95	1.57	1.85	1.59	1.97	2.32	2.02	1.65	1.95	1.75	1.73	1.85	1.79
18	--	--	--	1.80	2.05	1.93	1.56	1.83	1.60	1.94	2.17	1.98	1.65	1.95	1.72	1.73	1.86	1.80
19	--	--	--	1.72	2.06	1.92	1.54	1.85	1.56	1.92	2.23	1.95	1.68	1.99	1.71	1.75	1.88	1.82
20	--	--	--	1.78	2.06	1.94	1.55	1.89	1.57	1.82	2.23	1.96	1.69	2.03	1.72	1.76	1.90	1.83
21	--	--	--	1.67	2.04	1.89	1.60	1.91	1.61	1.92	2.16	1.95	1.77	2.04	1.79	1.77	1.93	1.84
22	1.61	1.63	1.62	1.79	1.95	1.91	1.53	1.91	1.66	1.94	2.30	1.96	1.79	2.03	1.82	1.78	1.91	1.85
23	--	--	--	1.65	2.06	1.88	1.64	1.91	1.70	1.92	2.15	1.95	1.77	1.96	1.83	1.79	1.91	1.84
24	--	--	--	1.82	2.00	1.89	1.66	1.85	1.68	1.93	2.14	1.96	1.79	1.94	1.82	1.71	1.90	1.80
25				1.65	1.97	1.86	1.66	1.87	1.69				1.80	1.94	1.80	1.68	1.81	1.75
26	1.67	1.67	1.67	1.69	2.02	1.86	1.61	1.90	1.67				1.74	1.97	1.80	1.66	1.78	1.73
27				1.78	1.95	1.87	1.66	1.85	1.67	1.85	1.90	1.88	1.68	1.99	1.80	1.67	1.77	1.72
28				1.68	1.96	1.86	1.64	1.84	1.67	1.74	2.19	1.88	1.73	1.99	1.77	1.66	1.78	1.71
29	1.71	1.77	1.73	1.59	1.97	1.84	--	--	--	1.84	1.87	1.86	1.64	2.01	1.76	1.65	1.77	1.70
30	--	--	--	1.65	1.88	1.83	--	--	--	1.80	2.12	1.85	1.76	1.95	1.78	1.65	1.76	1.70
31	--	--	--	1.68	1.92	1.81	1.62	1.80	1.65	1.74	2.13	1.86	1.61	1.96	1.75	1.65	1.76	1.69
Monthly Min/Max/Avg	1.61	2.31	2.00	1.58	2.12	1.88	1.47	1.93	1.61	1.74	2.32	1.94	1.57	2.05	1.75	1.61	1.93	1.76

NOTES: '--' Indication Analyzer Offline

1.2.31 Phosphoric Acid Consumption

January 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.90	0.90	417	824
2	0.90	0.90	433	866
3	0.90	0.90	497	843
4	0.90	0.90	477	889
5	0.90	0.90	495	909
6	0.90	0.90	524	907
7	0.90	0.90	532	862
8	0.90	0.90	490	876
9	0.90	0.90	514	864
10	0.90	0.85	488	553
11	0.90	0.90	513	888
12	0.90	0.90	528	932
13	0.90	0.90	428	832
14	0.90	0.90	496	848
15	0.90	0.90	509	835
16	0.90	0.90	531	935
17	0.90	0.90	544	529
18	0.90	0.90	547	815
19	0.90	0.90	499	884
20	0.90	0.90	504	923
21	0.90	0.90	521	909
22	0.90	0.90	515	906
23	0.90	0.90	534	870
24	0.90	0.90	534	977
25	0.90	0.90	537	941
26	0.90	0.90	494	881
27	0.90	0.90	555	972
28	0.90	0.90	531	882
29	0.90	0.56	655	93
30	0.90	0.90	603	759
31	0.90	0.90	693	484
Monthly Total			16,136	25,488
Monthly Avg	0.90	0.89	521	822

NOTES: ' -- ' indicates plant offline
- Phosphoric acid consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 75%)
- NSF limit for Phosphoric acid (75%) is 13 mg/L

1.2.32 Summary of Mainbreaks

January 2024

Date and Time Reported	Location of Mainbreak	Repaired (Time)	Size	Type**
01/04/2024 19:00:20	14127-167 AVENUE NW		1050	CCP
01/08/2024 07:15:38	15802-110A AVENUE NW	01/17/2024 15:45:00	150	CI
01/10/2024 04:36:03	12939-124 STREET NW	01/10/2024 18:55:00	300	CI
01/10/2024 08:59:21	12835U-122 STREET NW	01/10/2024 17:35:01	100	CI
01/10/2024 12:00:24	8405-117 AVENUE NW	01/10/2024 13:16:54	150	AC
01/11/2024 04:59:15	7604-150 STREET NW	01/11/2024 15:58:00	150	CI
01/12/2024 07:39:22	15218-81 AVENUE NW	01/12/2024 16:30:03	150	CI
01/13/2024 05:29:05	169 ST N 104A AVE	01/13/2024 22:20:00	250	CI
01/13/2024 23:47:05	10475-169 STREET NW	01/14/2024 11:00:00	250	CI
01/14/2024 22:25:05	12702-122 STREET NW	01/24/2024 16:30:00	200	CI
01/15/2024 06:22:11	10568-92 STREET NW	01/26/2024 16:00:00	500	CI
01/16/2024 07:13:52	W 87 ST N CONNORS ROAD	01/16/2024 19:40:00	150	CI
01/17/2024 18:07:46	5341-99 STREET NW	01/18/2024 22:30:32	300	AC
01/19/2024 05:15:35	16306-83 AVENUE NW	01/19/2024 19:41:27	200	CI
01/19/2024 15:24:54	8525-106A AVENUE NW	01/22/2024 15:00:00	150	PVC
01/20/2024 01:26:13	6508-129 AVENUE NW	01/20/2024 21:55:00	100	CI
01/20/2024 08:06:39	7315U-72A STREET NW	01/22/2024 16:03:00	200	CI
01/20/2024 10:24:00	12825-123A ST NW	01/21/2024 10:53:38	100	CI
01/20/2024 12:38:00	3506-122 AVENUE NW	01/21/2024 14:48:48	150	CI
01/21/2024 06:36:00	12545-126 STREET NW	01/24/2024 14:00:00	450	CI
01/20/2024 15:48:00	11836-95A STREET NW	01/21/2024 22:15:00	150	CI
01/21/2024 15:20:51	16306-87 AVENUE NW	01/22/2024 15:07:29	200	CI
01/21/2024 17:08:00	6637-123 STREET NW	01/22/2024 17:26:22	200	CI
01/21/2024 17:16:08	12202-80 STREET NW	02/08/2024 12:30:16	200	CI
01/22/2024 06:49:05	2303-119 STREET NW		150	AC
01/23/2024 11:35:00	11617-137 AVENUE NW	01/23/2024 22:25:12	200	CI
01/24/2024 16:45:00	12702-122 STREET NW	01/27/2024 14:20:00	200	CI
01/26/2024 15:34:21	8740-90 AVENUE NW	01/27/2024 11:44:00	200	CI
01/27/2024 20:42:11	12547-102 AVENUE NW	01/28/2024 16:00:00	150	CI
01/27/2024 22:29:07	13408-108 STREET NW	01/28/2024 17:50:00	300	CI
01/28/2024 18:00:32	13408-108 STREET NW	01/29/2024 13:30:30	300	CI
01/28/2024 19:44:20	9523-135 AVENUE NW	01/29/2024 01:00:00	250	CI
01/29/2024 16:20:47	13417-119 STREET NW	02/05/2024 19:30:12	250	CI
01/29/2024 17:18:58	10533-140 STREET NW	01/30/2024 13:15:00	150	CI
01/29/2024 23:37:04	13307-118 STREET NW	01/30/2024 19:14:00	250	CI
01/31/2024 04:49:43	10511-121 ST NW	02/06/2024 09:30:28	300	CI

Month	Total Breaks By Month
Jan-24	36
Feb-24	
Feb-24	
Feb-24	
Feb-24	
Feb-24	
Feb-24	
Feb-24	
Feb-24	
Feb-24	
Feb-24	
Feb-24	
YTD 2024	**36**

**Pipe Type Explanation	
CI	Cast Iron Pipe
COP	Copper Pipe
CCP	Concrete Cylinder Pipe
PVC	Poly Vinyl Chloride Pipe
AC	Asbestos Cement Pipe
HPLCP	Hyperscon Cylinder Prestressed Lined Concrete Cylinder Pipe
FRP	Fibre Glass Pipe
STL	Steel Pipe
HDP	High Density Polyethylene

Water Quality 2023

2.1.1 Water Quality Objectives for EPCOR

Parameter	Approval Requirement	EPCOR Internal Limit	EPCOR Target
Turbidity (NTU)			
Individual Filters	<0.3	<0.1 (2)	<0.08
Distribution System	N/A	< 1 (1)	< 1
Distribution System (Maintenance)	N/A	< 3 (1)	< 1
Colour (TCU)	<15 (3)	<10 (1)	<3
pH (25°C)	6.5 - 8.5	7.3 - 8.3 (1)	7.4 - 8.0
Taste and Odour	Inoffensive (3)	Inoffensive (1)	Inoffensive
E.coli (PA/100 mL)	absent	absent (1)	absent
Total Coliforms (PA/100 mL)	absent	absent (1)	absent
Total Chlorine Residual (mg/L)			
Water Treatment Plant Effluent	>1.0	1.3 - 2.4 (2)	1.9 - 2.2
Reservoirs	>0.5	1.0 - 2.4 (1)	1.2 - 2.2
Distribution	>0.5 (4)	1.0 - 2.4 (1)	1.0 - 2.2
Fluoride: (mg/L)			
Reservoir Effluent	0.5 - 0.9	0.6 - 0.8 (1)	0.6 - 0.8
Trihalomethanes (mg/L)			
Reservoir Effluent	<0.100	<0.050 (1)	<0.040
Distribution System	<0.100	<0.050 (1)	<0.040
UV254 % Transmittance			
E.L. Smith		>89% (2)	>90%
Rossdale		>87% (2)	>88%
HAA (mg/L)			
Reservoir Effluent	< 0.080	< 0.040 (1)	<0.035
Distribution System	< 0.080	< 0.040 (1)	<0.035
NDMA (mg/L):			
Reservoir Effluent	< 0.000040	< 0.000010 (1)	<0.000005
Distribution System	< 0.000040	< 0.000010 (1)	
Microoganism Log Removal at Water			
Giardia	≥5.5	≥6.0 (2)	>6.5
Cryptosporidium	≥5.5	≥5.3 (2)	>6.0
Virus	≥4.0	≥4.5 (2)	>5.0

(1) Limit based on City of Edmonton Performance Based Rate (PBR) agreement
(2) Limit based on EPCOR Action Level
(3) Aesthetic Objective
(4) in 75% of samples collected in a day
All values are expressed in units of mg/L unless otherwise stated.
Based on March 2022 Summary of Epcor Edmonton Water Quality Standards.

2.1.2 SUMMARY OF MAJOR CHEMICALS, MICROBIOLOGICAL, AND PHYSICAL PARAMETERS OF EDMONTON DRINKING WATER PRODUCED AT WATER TREATMENT PLANTS

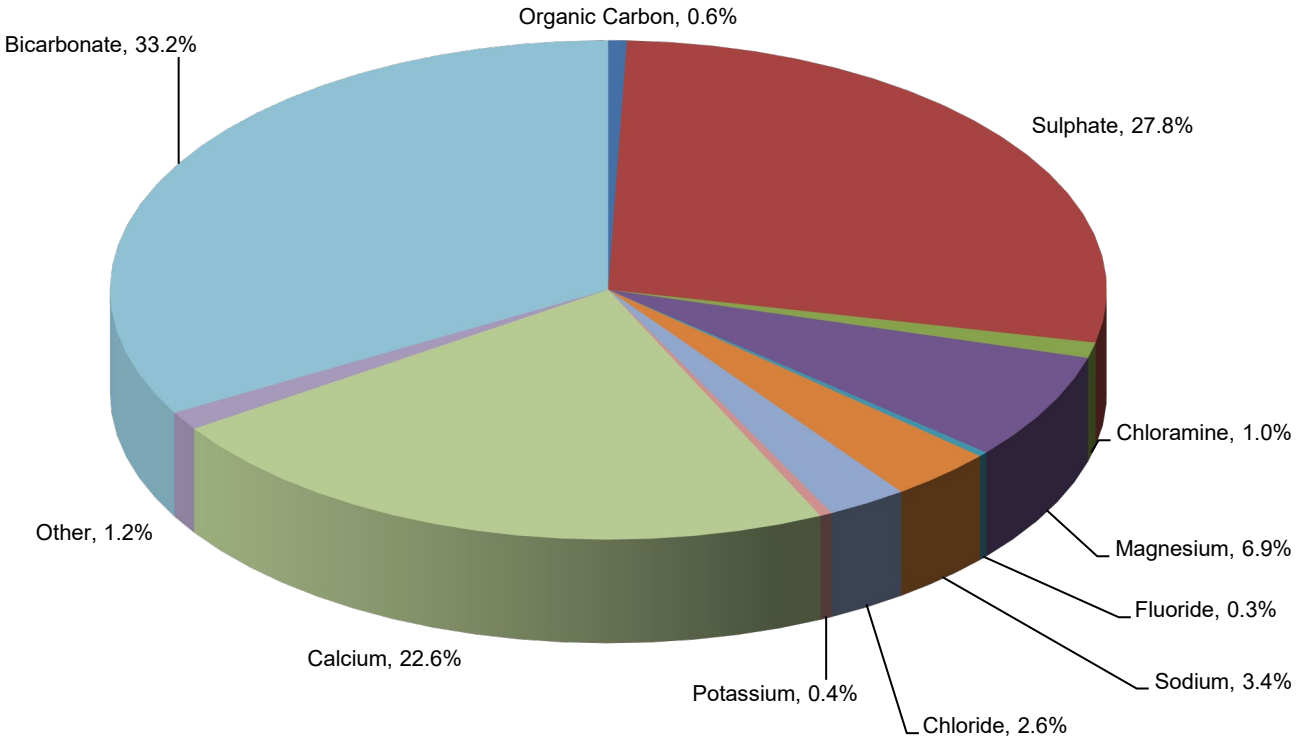
January 2024

Parameter	Unit	Monthly Count	Monthly Average	YTD Median	YTD Min	YTD Max	YTD Count
Alkalinity Total	mg CaCO3/L	61	127	126	115	141	61
Aluminum	mg/L	2	0.089	0.089	0.089	0.089	2
Arsenic	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	2
Bromate Dissolved	mg/L	10	<0.005	<0.005	<0.005	<0.005	10
Bromodichloromethane	µg/L	2	<0.5	<0.5	<0.5	<0.5	2
Cadmium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	2
Calcium Hardness	mg/L CaCO3	61	123	124	102	141	61
Chlorate Dissolved	mg/L	10	0.139	0.144	0.080	0.256	10
Chloride Dissolved	mg/L	10	6.06	6.17	4.78	6.80	10
Chlorite Dissolved	mg/L	10	<0.01	<0.01	<0.01	<0.01	10
Chromium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	2
Colour	TCU	61	1.2	1.1	0.7	1.9	61
Conductivity	µS/cm	10	407	409	376	453	10
Copper	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	2
Fluoride	mg/L	61	0.72	0.72	0.62	0.79	61
Iron	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	2
Lead	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	2
Manganese	mg/L	2	<0.0020	<0.0020	<0.0020	<0.0020	2
Mercury	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	2
Nitrate (as N) Dissolved	mg/L	10	0.085	0.085	0.080	0.090	10
Nitrite (as N) Dissolved	mg/L	10	0.01	0.01	0.01	0.01	10
pH	N/A	61	7.9	7.9	7.6	8.1	61
Potassium	mg/L	2	0.76	0.75	0.70	0.80	2
Sodium	mg/L	2	7.17	7.10	6.80	7.40	2
Sulphate Dissolved	mg/L	10	74.5	76.5	59.5	95.1	10
Total Chlorine	N/A	61	2.18	2.19	1.99	2.34	61
Total Dissolved Solids	mg/L	2	221	222	220	223	2
Total Hardness	mg/L CaCO3	61	188	188	166	218	61
Total Organic Carbon	mg/L C	10	1.5	1.4	1.3	1.7	10
Trihalomethanes	µg/L	2	17.8	18.3	16.4	20.1	2
Turbidity	NTU	61	0.05	0.05	<0.04	0.09	61
Uranium	mg/L	2	0.0005	0.0006	0.0005	0.0006	2
Zinc	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	2
Bacteriological Data							
Coliforms, total	PA/100mL	61	Absent	Absent	Absent	Absent	61
E. coli	PA/100mL	61	Absent	Absent	Absent	Absent	61

2.1.3 THE COMPOSITION OF EDMONTON WATER
TREATED WATER ENTERING THE DISTRIBUTION SYSTEM MONTHLY DATA

Edmonton Water for the Month of January 2024 is 99.98% pure

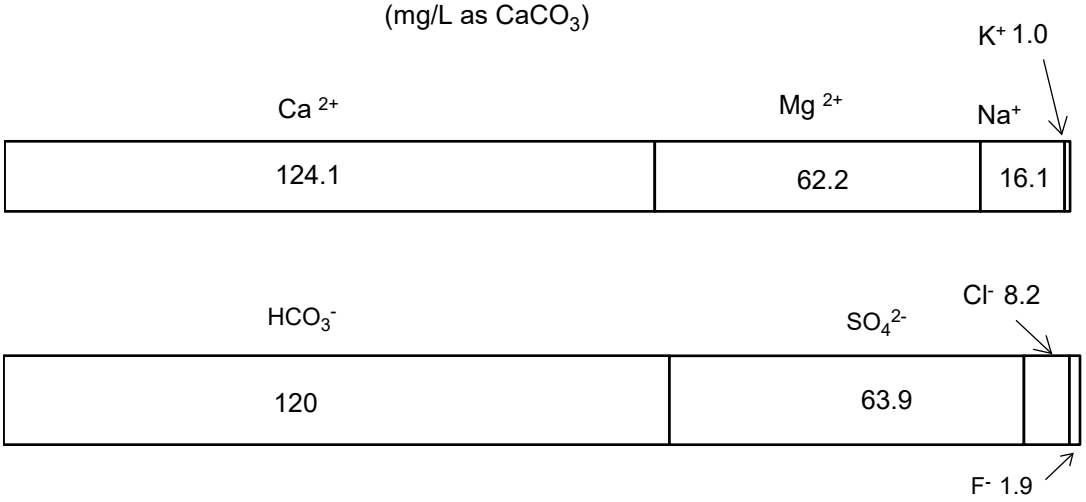
Other Chemicals that make up the remaining 0.02% (in % by weight)



*Other - Includes Trace Metals and Trace Organics

Bar Diagram of the Major Ions in Treated Water

(mg/L as $CaCO_3$)



2.1.4 SUMMARY OF LABORATORY ANALYSIS - 2024

DISTRIBUTION OF TESTING

Drinking Water Testing

		Jan	**Total**
Water Treatment Plant	# Tests	3,653	3,653
	# Samples	260	260
Field Reservoirs	# Tests	687	687
	# Samples	22	22
Routine Distribution System	# Tests	2,212	2,212
	# Samples	146	146
System Depressurization/Repair	# Tests	1,050	1,050
	# Samples	70	70
Customer Complaints	# Tests	810	810
	# Samples	15	15
Total	# Tests	8,412	8,412
	# Samples	513	513

Additional Testing

		Jan	**Total**
New Watermain Testing	# Tests	80	80
	# Samples	17	17
Water Treatment Plant Waste Discharge	# Tests	135	135
	# Samples	55	55
Quality Control	# Tests	1,584	1,584
	# Samples	956	956
Externally Contracted Analyses	# Tests	154	154
	# Samples	77	77
Total	# Tests	1,953	1,953
	# Samples	1,105	1,105

		Jan	**Total**
Total	# Tests	10,365	10,365
	# Samples	1,541	1,541

2.1.5 QUALITY ASSURANCE – January 2024

Drinking water quality must meet the requirements in the Alberta Environment and Protected Areas *Approval-to-Operate* (638-04-00) and the limits set out in the latest version of the Health Canada *Guidelines for Canadian Drinking Water Quality (GCDWQ)*. The latest internet edition of the *GCDWQ* was issued in September 2022 and supersedes all previous electronic and printed versions, including the Sixth Edition published 1996. Guideline limits are listed as Maximum Acceptable Concentrations (MACs), Aesthetic Objectives (AO) or Operational Guidelines (OG). The latest edition of the Health Canada Guidelines includes parameter types, commons sources, health considerations and application of the guideline.

In addition, for treated water in the distribution system, total chlorine residual values under 0.5 mg/L are not necessarily violations of the approval, but do require immediate follow-up action and re-sampling. A violation of the current *Approval-to-Operate* (638-04-00) requirements occurs if the chlorine residual in more than 25% of samples collected in a day is < 0.5 mg/L. Alberta Environment and Protected Areas is to be notified of any single positive total coliform sample and follow-up sampling is done according to the *Communication and Action Protocol for Failed Bacteriological Results in Drinking Water*. Any sample that is positive for *E. coli* is also considered a violation and requires follow-up action and re-sampling. A repeat total coliform positive from the same location is also considered a violation

Critical water quality parameters (e.g. turbidity, residual chlorine, fluoride, pH, & particle counts) in the treated water are monitored continuously using on-line instruments at the water treatment plants. In addition, water quality samples are collected daily at the two Water Treatment Plants, and 180 to 300 samples per month are collected throughout the distribution system (routine and random sampling sites, reservoirs, following system depressurizations and in response to customer complaints).

The EPCOR Water Laboratory is nationally accredited by CALA (Canadian Association for Laboratory Accreditation) to ISO/IEC 17025 for specific water quality analyses, and it also provides quality assurance support for Water Plant Operations labs and on-line analytical monitoring.

"*Violations*" occur when the concentrations of a measured parameter exceeds the AEP *Approval-to-Operate* limits, including the MACs for the GCDWQ parameters listed Schedule 4.

"Variances" occur when the concentration of a measured parameter exceeds EPCOR's own internal water quality objectives. See section 2.1.1 of this report for EPCOR's internal water quality objectives.

2.1.5.1 **Total Water Quality Violations of AEP Approval-to-Operate:**

Current month: **0** YTD Total: **0**

2.1.5.2 **Water Quality Violations for Water Plants (Treated Water)**

Current month**: 0** YTD Total**: 0**

2.1.5.3 **Water Quality Violations (Environmental): Plants Waste Streams**

Current month**: 0** YTD Total**: 0**

2.1.5.4 **Violations for Water Quality in the Field Reservoirs and Distribution System**

Sample Type	This Month	YTD
Depressurization Samples	0	0
Complaint Samples	0	0
Random Samples	0	0
Reservoirs	0	0
TOTAL (Distribution)	0	0

2.1.5.5 **Variances from EPCOR Water Services Water Quality Objectives at the Water Treatment Plants**

Variance Category[1]	This Month	YTD
Aluminium[2] > 0.20 or 0.10 mg/L	0	0
Turbidity > 1 NTU	0	0
Chlorine < 1 mg/L or > 2.4 mg/L	0	0
Cryptosporidium ≥ 1/1000 L	0	0
Giardia ≥ 1/1000 L	0	0
Other	0	0
Total Variances + Violations	0 + 0 = 0	0 + 0 = 0

Notes: 1) Variance statistics include any violations.

2) As of January 15, 2024 both ELS and ROS WTP converted back to Conventional Filtration mode. Aluminium limit changes from 0.1 mg/L to 0.2 mg/L (operational guideline), when in Direct Filtration.

2.1.5.6 **Variances from EPCOR Water Services Water Quality Objectives in the Field Reservoirs and Distribution System**

Variance Category[1]	This Month	YTD
Turbidity > 1 NTU	7	7
Chlorine < 1 mg/L or > 2.4 mg/L	2	2
Single Positive Coliform	1	1
THMs > 50 µg/L	0	0
Pipe Lube, Odour, UV positive	0	0
Aluminium[2] > 0.20 (or 0.1) mg/L	1	1
Iron > 0.300 mg/L	0	0
Other	0	0
Total Variances + Violations	11 + 0 = 11	11 + 0 = 11

Notes: 1) Variance statistics include any violations.
2) As of January 15, 2024 both ELS and ROS WTP converted back to Conventional Filtration mode. Aluminium limit changes from 0.1 mg/L to 0.2 mg/L (operational guideline), when in Direct Filtration.

2.1.5.7 **Variances from EPCOR Water Services Water Quality Objectives (Lab Waste Streams)**

No variances to report for lab waste streams.

2.2.1 Bacteriological Data: Water Treatment Plants

2024

	Coliforms, total						E. coli					cATP (pg/mL)			
	Count	# +ve	% +ve	Mean	Min	Max	# +ve	% +ve	Mean	Min	Max	Count	Mean	Min	Max
January															
Rossdale Raw (MPN/100mL)	32			133	1	517			13	1	40	1	44.7	44.7	44.7
E.L. Smith Raw (MPN/100mL)	5			41	28	53			2	1	3	1	14.2	14.2	14.2
Raw River Water Entering the Treatment Plants	37			121	1	517			11	1	40	2	29.4	14.2	44.7
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.44	0.10	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.50	0.12	1.00
Water Entering the Plant Reservoir	61	0	0.0				0	0.0				61	0.47	0.10	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.45	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.52	0.10	1.00
Treated Water Entering the Distribution System	61	0	0.0				0	0.0				61	0.49	0.10	1.00

PA = present or absent, MPN = most probable number, cATP = cellular adenosine triphosphate

2.2.2 Bacteriological Data: Distribution System

January 2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
January									
FIELD DISTRIBUTION	104	0	0.0	0	0.0	15	0.36	0.14	1.50
FIELD DISTRIBUTION - PLPH	55	1	1.8	0	0.0				
FIELD RESERVOIR	22	0	0.0	0	0.0	22	0.46	0.15	1.20
FIELD RESERVOIR - PLPH (duplicate-not counted)	22	0	0.0	0	0.0				
Monthly	181	1	0.6	0	0.0	37	0.42	0.14	1.50
Year to Date	181	1	0.6	0	0.0	37	0.42	0.14	1.50

Guidelines for Canadian Drinking Water Quality recommend 195 bacteriological samples for a city the size of Edmonton. Total Coliform and E.coli testing is required in the AEP Approval. At least 95 of the 195 samples must be tested at ProvLab each month according to our Operations Program.

Testing conducted by Laboratory for Provincial Laboratory for Public Health (ProvLAB) are labelled with PLPH.

2.2.2 Bacteriological Data: Distribution System

January 2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
Samples from Complaints									
January	15	0	0.0	0	0.0	15	0.36	0.14	1.50
Year to Date	15	0	0.0	0	0.0	15	0.36	0.14	1.50
Samples from Depressurizations									
January	70	0	0.0	0	0.0				
Year to Date	70	0	0.0	0	0.0				

2.2.3 Giardia and Cryptosporidium

January 2024

Treated Water entering the distribution system

	Cryptosporidium		Giardia	
	oocysts/100L		cysts/100L	
	E.L. Smith	Rossdale	E.L. Smith	Rossdale
23 - Jan		<0.1		<0.1
	<0.09		<0.09	

Raw Water

	Cryptosporidium		Giardia	
	oocysts/100L		cysts/100L	
	E.L. Smith	Rossdale	E.L. Smith	Rossdale
23 - Jan		<6.93		<6.93
	<1.28		<1.28	

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

January 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical																		
Colour (TCU)	1.2	0.7	1.9	31	1.1	0.7	1.8	30	1.2	0.7	1.9	31	1.1	0.7	1.8	30	(15)	10
Conductivity (uS/cm)	402	376	436	5	411	376	453	5	402	376	436	5	411	376	453	5		<1
FPA-Intensity (N/A)	1.03	0.94	1.12	4	0.81	0.62	1.12	4	1.03	0.94	1.12	4	0.81	0.62	1.12	4		
pH (N/A)	8.0	7.7	8.1	31	7.9	7.6	8.1	30	8.0	7.7	8.1	31	7.9	7.6	8.1	30	(7.0 - 10.5)	7.3-8.3
Total Dissolved Solids (mg/L)	223	223	223	1	220	220	220	1	223	223	223	1	220	220	220	1	(500)	
Turbidity (NTU)	<0.05	<0.04	0.07	31	0.05	<0.04	0.09	30	<0.05	<0.04	0.07	31	0.05	<0.04	0.09	30		0.3
Primary Inorganics (mg/L)																		
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.01	
Barium	0.055	0.055	0.055	1	0.055	0.055	0.055	1	0.055	0.055	0.055	1	0.055	0.055	0.055	1	2	
Boron	0.01	0.01	0.01	1	0.01	0.01	0.01	1	0.01	0.01	0.01	1	0.01	0.01	0.01	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.21	0.18	0.26	5	0.10	0.08	0.11	5	0.21	0.18	0.26	5	0.10	0.08	0.11	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.70	0.65	0.75	31	0.73	0.62	0.79	30	0.70	0.65	0.75	31	0.73	0.62	0.79	30	1.5	0.6–0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00020	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.08	0.08	0.09	5	0.09	0.08	0.09	5	0.08	0.08	0.09	5	0.09	0.08	0.09	5	10	
Nitrite (as N) Dissolved	0.01	0.01	0.01	5	0.01	0.01	0.01	5	0.01	0.01	0.01	5	0.01	0.01	0.01	5	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.05	
Total Chlorine	2.24	2.14	2.34	31	2.14	1.99	2.32	30	2.24	2.14	2.34	31	2.14	1.99	2.32	30	>1.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	0.0005	0.0005	0.0005	1	0.0006	0.0006	0.0006	1	0.0005	0.0005	0.0005	1	0.02	

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

January 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	5	
Carbon Tetrachloride	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	2	
Chlorobenzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	5 (1)	
Dichloroethylene (1,1)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1	14	
Ethylbenzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	140 (1.6)	
Haloacetic Acids, (HAA5)	20.5	20.5	20.5	1	17.7	17.7	17.7	1	20.5	20.5	20.5	1	17.7	17.7	17.7	1	80	40
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	50	
NDMA	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1	0.040	10
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	10	
Toluene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	60 (24)	
Total Xylenes	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	90	
Trichloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	5	
Trihalomethanes	20.1	20.1	20.1	1	16.4	16.4	16.4	1	20.1	20.1	20.1	1	16.4	16.4	16.4	1	100	50

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

January 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L)																		
Alkalinity Total (mg CaCO3/L)	127	118	141	31	126	115	140	30	127	118	141	31	126	115	140	30		
Aluminum	0.089	0.089	0.089	1	0.089	0.089	0.089	1	0.089	0.089	0.089	1	0.089	0.089	0.089	1	2.9	0.1/0.2
Ammonia as NH3	0.13	0.10	0.14	5	0.13	0.10	0.14	5	0.13	0.10	0.14	5	0.13	0.10	0.14	5		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5		
Calcium	47.8	47.8	47.8	1	49.7	49.7	49.7	1	47.8	47.8	47.8	1	49.7	49.7	49.7	1		
Chloride Dissolved	5.4	4.8	6.8	5	6.4	5.8	6.8	5	5.4	4.8	6.8	5	6.4	5.8	6.8	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1		
Hardness, Ca (mg CaCO3/L)	124	106	141	31	122	102	138	30	124	106	141	31	122	102	138	30		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
Lithium	0.0032	0.0032	0.0032	1	0.0033	0.0033	0.0033	1	0.0032	0.0032	0.0032	1	0.0033	0.0033	0.0033	1		
Magnesium	14.4	14.4	14.4	1	15.1	15.1	15.1	1	14.4	14.4	14.4	1	15.1	15.1	15.1	1		
Molybdenum	0.001	0.001	0.001	1	0.0009	0.0009	0.0009	1	0.001	0.001	0.001	1	0.0009	0.0009	0.0009	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Phosphate,Ortho (as P)	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1		
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1		
Potassium	0.7	0.7	0.7	1	0.8	0.8	0.8	1	0.7	0.7	0.7	1	0.8	0.8	0.8	1		
Silicon	2.05	2.05	2.05	1	2.14	2.14	2.14	1	2.05	2.05	2.05	1	2.14	2.14	2.14	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	6.8	6.8	6.8	1	7.4	7.4	7.4	1	6.8	6.8	6.8	1	7.4	7.4	7.4	1	(200)	
Strontium	0.446	0.446	0.446	1	0.454	0.454	0.454	1	0.446	0.446	0.446	1	0.454	0.454	0.454	1	7.0	
Sulphate Dissolved	72.1	59.5	86.8	5	76.0	60.4	95.1	5	72.1	59.5	86.8	5	76.0	60.4	95.1	5	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	189	172	218	31	187	166	211	30	189	172	218	31	187	166	211	30		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

January 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L)																		
Bromochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Bromodichloromethane	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		16
Bromoform	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Chloroform	20.1	20.10	20.1	1	16.4	16.40	16.4	1	20.1	20.10	20.1	1	16.4	16.40	16.4	1		
Dibromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Dibromochloromethane	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichloroacetic acid	10.2	10.2	10.2	1	9.12	9.12	9.12	1	10.2	10.2	10.2	1	9.12	9.12	9.12	1		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	(15)	
MIBK	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Monobromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Monochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Styrene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Tetrachloroethane (1,1,2,2)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Total Organic Carbon	1.5	1.3	1.7	5	1.4	1.3	1.7	5	1.5	1.3	1.7	5	1.4	1.3	1.7	5		
Total Volatile Organics (NonTHM)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Total Volatile Organics (Unknown)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Trichloroacetic acid	10.3	10.3	10.3	1	8.61	8.61	8.61	1	10.3	10.3	10.3	1	8.61	8.61	8.61	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval limits. The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.5 ROSSDALE AND E.L. SMITH TREATED WATER ENTERING PLANT RESERVOIR

January 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical																		
Turbidity (NTU)	<0.04	<0.04	0.07	31	0.05	<0.04	0.08	30	<0.04	<0.04	0.07	31	0.05	<0.04	0.08	30		0.3
UV 254 %T ****	<93.5	<91.0	<94.8	31	<93.8	<91.1	<95.1	30	<93.5	<91.0	<94.8	31	<93.8	<91.1	<95.1	30		
Primary Inorganics (mg/L)																		
Bromate Dissolved	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	0.01	
Chlorate Dissolved	0.21	0.18	0.25	5	0.09	0.08	0.12	5	0.21	0.18	0.25	5	0.09	0.08	0.12	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	1	
Nitrate (as N) Dissolved	0.08	0.08	0.09	5	0.09	0.08	0.10	5	0.08	0.08	0.09	5	0.09	0.08	0.10	5	10	
Nitrite (as N) Dissolved	0.01	0.01	0.01	5	0.01	0.01	0.01	5	0.01	0.01	0.01	5	0.01	0.01	0.01	5	1	
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	5	
Carbon Tetrachloride	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	2	
Chlorobenzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	5 (1)	
Dichloroethylene (1,1)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1	14	
Ethylbenzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	10	
Toluene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	60 (24)	
Total Xylenes	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	90	
Trichloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	5	
Trihalomethanes	17.9	17.9	17.9	1	14.6	14.6	14.6	1	17.9	17.9	17.9	1	14.6	14.6	14.6	1	100	50
Secondary Inorganics (mg/L)																		
Ammonia as NH3	0.13	0.10	0.16	5	0.14	0.10	0.16	5	0.13	0.10	0.16	5	0.14	0.10	0.16	5		
Bromide Dissolved	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5		
Chloride Dissolved	6.1	4.7	10.4	5	6.5	5.8	7.0	5	6.1	4.7	10.4	5	6.5	5.8	7.0	5	(250)	
Sulphate Dissolved	72.2	59.2	87.4	5	75.7	59.8	95.3	5	72.2	59.2	87.4	5	75.7	59.8	95.3	5	(500)	

2.2.5 ROSSDALE AND E.L. SMITH TREATED WATER ENTERING PLANT RESERVOIR

January 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L)																		
Bromodichloromethane	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		16
Bromoform	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Chloroform	17.9	17.90	17.9	1	14.6	14.60	14.6	1	17.9	17.90	17.9	1	14.6	14.60	14.6	1		
Dibromochloromethane	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	(15)	
MIBK	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Styrene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Tetrachloroethane (1,1,2,2)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Total Volatile Organics (NonTHM)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Total Volatile Organics (Unknown)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

**** UV 254 %T for Rossdale based on a sample collected daily from one of the nine filters selected randomly. For E.L. Smith it is based on a daily sample of Combined Filter Effluent

2.2.6.a Routine Distribution System (does not include Field Reservoirs)

January 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
pH (N/A)	7.9	7.8	7.9	2	7.9	7.8	7.9	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.21	0.05	2.01	146	0.21	0.05	2.01	146		1.0
Primary Inorganics (mg/L) **										
Bromate Dissolved	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	2	0.01	
Chlorate Dissolved	0.17	0.14	0.20	2	0.17	0.14	0.20	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	2	1	
Nitrate (as N) Dissolved	0.08	0.08	0.08	2	0.08	0.08	0.08	2	10	
Nitrite (as N) Dissolved	<0.01	<0.01	<0.01	2	<0.01	<0.01	<0.01	2	1	
Total Chlorine	2.03	1.40	2.24	146	2.03	1.40	2.24	146	>0.5 and <3.0	>1.0 and <2.4
Primary Organics (ug/L) **										
NDMA (µg/L)	<0.006	<0.006	<0.006	3	<0.006	<0.006	<0.006	3	0.040	10
Secondary Inorganics (mg/L) ***										
Ammonia as N	0.1	0.1	0.1	2	0.1	0.1	0.1	2		
Bromide Dissolved	<0.01	<0.01	<0.01	2	<0.01	<0.01	<0.01	2		
Chloride Dissolved	5.2	4.9	5.6	2	5.2	4.9	5.6	2	(250)	
Sulphate Dissolved	59.5	59.0	59.9	2	59.5	59.0	59.9	2	(500)	
Secondary Organics (ug/L) ***										
Bromochloroacetic acid	<1	<1	<1	6	<1	<1	<1	6		
Dibromoacetic acid	<1	<1	<1	6	<1	<1	<1	6		
Dichloroacetic acid	9.90	9.47	10.80	6	9.90	9.47	10.80	6		
Monobromoacetic acid	<1	<1	<1	6	<1	<1	<1	6		
Monochloroacetic acid	<1	<1	<1	6	<1	<1	<1	6		
Trichloroacetic acid	9.35	8.93	9.74	6	9.35	8.93	9.74	6		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.6.b Additional Distribution System Samples Collected from Water Quality Complaint Investigations

January 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.0	0.6	1.8	15	1.0	0.6	1.8	15	(15)	10
pH (N/A)	7.9	7.6	8.1	15	7.9	7.6	8.1	15	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.29	0.05	1.42	15	0.29	0.05	1.42	15		1.0
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	15	<0.0002	<0.0002	<0.0002	15	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	15	<0.0002	<0.0002	<0.0002	15	0.01	
Barium	0.057	0.052	0.063	15	0.057	0.052	0.063	15	2	
Boron	0.010	0.007	0.013	15	0.010	0.007	0.013	15	2	
Cadmium	<0.0002	<0.0002	<0.0002	15	<0.0002	<0.0002	<0.0002	15	0.007	
Chromium	<0.0002	<0.0002	<0.0002	15	<0.0002	<0.0002	<0.0002	15	0.05	
Copper	<0.005	<0.005	<0.005	15	<0.005	<0.005	<0.005	15	2 (1)	
Lead	0.0002	<0.0002	0.0004	15	0.0002	<0.0002	0.0004	15	0.005	
Manganese	0.002	<0.002	0.003	15	0.002	<0.002	0.003	15	0.12 (0.02)	
Mercury	<0.00020	<0.00020	<0.00020	15	<0.00020	<0.00020	<0.00020	15	0.001	
Selenium	0.0002	<0.0002	0.0003	15	0.0002	<0.0002	0.0003	15	0.05	
Strontium	0.450	0.434	0.465	15	0.450	0.434	0.465	15	7.0	
Total Chlorine	2.01	1.75	2.27	15	2.01	1.75	2.27	15	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0005	<0.0005	0.0006	15	0.0005	<0.0005	0.0006	15	0.02	

2.2.6.b Additional Distribution System Samples Collected from Water Quality Complaint Investigations

January 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Aluminum	0.060	0.018	0.139	15	0.060	0.018	0.139	15	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	15	<0.0002	<0.0002	<0.0002	15		
Calcium	49.5	46.4	54.1	15	49.5	46.4	54.1	15		
Cobalt	<0.0002	<0.0002	<0.0002	15	<0.0002	<0.0002	<0.0002	15		
Iron	0.038	<0.005	0.223	15	0.038	<0.005	0.223	15	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	15	<0.001	<0.001	<0.001	15		
Lithium	0.0035	0.0029	0.0041	15	0.0035	0.0029	0.0041	15		
Magnesium	15.1	13.7	16.4	15	15.1	13.7	16.4	15		
Molybdenum	0.0009	0.0006	0.0011	15	0.0009	0.0006	0.0011	15		
Nickel	0.0005	<0.0005	0.0008	15	0.0005	<0.0005	0.0008	15		
Phosphorus	0.92	0.87	0.97	15	0.92	0.87	0.97	15		
Potassium	0.8	0.7	1.0	15	0.8	0.7	1.0	15		
Silicon	2.26	1.98	2.69	15	2.26	1.98	2.69	15		
Silver	<0.0002	<0.0002	<0.0002	15	<0.0002	<0.0002	<0.0002	15		
Sodium	9.2	6.6	16.1	15	9.2	6.6	16.1	15	(200)	
Thallium	<0.0005	<0.0005	<0.0005	15	<0.0005	<0.0005	<0.0005	15		
Tin	<0.0005	<0.0005	<0.0005	15	<0.0005	<0.0005	<0.0005	15		
Titanium	<0.0005	<0.0005	<0.0005	15	<0.0005	<0.0005	<0.0005	15		
Total Hardness (mg/L CaCO3)	185	173	201	15	185	173	201	15		
Vanadium	<0.0005	<0.0005	<0.0005	15	<0.0005	<0.0005	<0.0005	15		
Zinc	0.005	<0.005	0.007	15	0.005	<0.005	0.007	15	(5.0)	
Zirconium	<0.001	<0.001	<0.001	15	<0.001	<0.001	<0.001	15		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.7 Castledowns Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Turbidity (NTU)	0.17	0.08	0.32	3	0.17	0.08	0.32	3		1
Primary Inorganics (mg/L) **										
Total Chlorine	1.77	1.51	2.04	3	1.77	1.51	2.04	3	>0.5 and <3.0	>1.0 and <2.4
Secondary Inorganics (mg/L) ***										
Ortho_P	0.92	0.92	0.92	1	0.92	0.92	0.92	1		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.8 Clareview Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.7	0.7	0.7	1	0.7	0.7	0.7	1	(15)	10
Conductivity (uS/cm)	368	368	368	1	368	368	368	1		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	1		
pH (N/A)	7.9	7.9	7.9	1	7.9	7.9	7.9	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.15	0.10	0.23	5	0.15	0.10	0.23	5		1
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.01	
Barium	0.056	0.056	0.056	1	0.056	0.056	0.056	1	2	
Boron	0.008	0.008	0.008	1	0.008	0.008	0.008	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.191	0.191	0.191	1	0.191	0.191	0.191	1	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.71	0.71	0.71	1	0.71	0.71	0.71	1	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.090	0.090	0.090	1	0.090	0.090	0.090	1	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	0.010	0.010	0.010	1	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.05	
Strontium	0.451	0.451	0.451	1	0.451	0.451	0.451	1	7.0	
Total Chlorine	2.04	1.96	2.09	5	2.04	1.96	2.09	5	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	0.02	

2.2.8 Clareview Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) ***										
Alkalinity Total	119	119	119	1	119	119	119	1		
Aluminum	0.078	0.078	0.078	1	0.078	0.078	0.078	1	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1		
Calcium	48.2	48.2	48.2	1	48.2	48.2	48.2	1		
Calcium Hardness	118	118	118	1	118	118	118	1		
Chloride Dissolved	5.5	5.5	5.5	1	5.5	5.5	5.5	1	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Iron	0.012	0.012	0.012	1	0.012	0.012	0.012	1	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Lithium	0.0032	0.0032	0.0032	1	0.0032	0.0032	0.0032	1		
Magnesium	14.4	14.4	14.4	1	14.4	14.4	14.4	1		
Molybdenum	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.90	0.88	0.92	2	0.90	0.88	0.92	2		
Phosphorus	0.91	0.91	0.91	1	0.91	0.91	0.91	1		
Potassium	0.70	0.70	0.70	1	0.70	0.70	0.70	1		
Silicon	1.93	1.93	1.93	1	1.93	1.93	1.93	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	7.2	7.2	7.2	1	7.2	7.2	7.2	1	(200)	
Sulphate Dissolved	60	60	60	1	60	60	60	1	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	177	177	177	1	177	177	177	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Secondary Organics (ug/L) ***										
Total Organic Carbon	1.3	1.3	1.3	1	1.3	1.3	1.3	1		

2.2.8 Clareview Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.9 Discovery Park Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.0	1.0	1.0	1	1.0	1.0	1.0	1	(15)	10
Conductivity (uS/cm)	367	367	367	1	367	367	367	1		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	1		
pH (N/A)	8.0	8.0	8.0	1	8.0	8.0	8.0	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.09	0.15	5	0.11	0.09	0.15	5		1
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.01	
Barium	0.054	0.054	0.054	1	0.054	0.054	0.054	1	2	
Boron	0.008	0.008	0.008	1	0.008	0.008	0.008	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.108	0.108	0.108	1	0.108	0.108	0.108	1	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.68	0.68	0.68	1	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.090	0.090	0.090	1	0.090	0.090	0.090	1	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.05	
Strontium	0.443	0.443	0.443	1	0.443	0.443	0.443	1	7.0	
Total Chlorine	1.50	1.46	1.55	5	1.50	1.46	1.55	5	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	0.02	

2.2.9 Discovery Park Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) ***										
Alkalinity Total	116	116	116	1	116	116	116	1		
Aluminum	0.093	0.093	0.093	1	0.093	0.093	0.093	1	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1		
Calcium	45.6	45.6	45.6	1	45.6	45.6	45.6	1		
Calcium Hardness	113	113	113	1	113	113	113	1		
Chloride Dissolved	6.1	6.1	6.1	1	6.1	6.1	6.1	1	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Lithium	0.0030	0.0030	0.0030	1	0.0030	0.0030	0.0030	1		
Magnesium	13.8	13.8	13.8	1	13.8	13.8	13.8	1		
Molybdenum	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.91	0.90	0.92	2	0.91	0.90	0.92	2		
Phosphorus	0.91	0.91	0.91	1	0.91	0.91	0.91	1		
Potassium	0.80	0.80	0.80	1	0.80	0.80	0.80	1		
Silicon	1.90	1.90	1.90	1	1.90	1.90	1.90	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	7.4	7.4	7.4	1	7.4	7.4	7.4	1	(200)	
Sulphate Dissolved	59	59	59	1	59	59	59	1	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	174	174	174	1	174	174	174	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Secondary Organics (ug/L) ***										
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	1		

2.2.9 Discovery Park Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

Footnote: The Discovery Park reservoir was officially included as part of EWSI's Approval to Operate, Approval 638-04-00, starting on January 19, 2021. From January 1 - 18, 2021 the Discovery Park Waterworks System operated under the Environmental Protection and Enhancement Act (EPEA) Registration no. 462525-00-00. This Registration was issued for Discovery Park Waterworks System to follow the Code of Practice for a Waterworks System Consisting Solely of a Water Distribution System.

2.2.10 Kaskitayo Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.6	1.6	1.6	1	1.6	1.6	1.6	1	(15)	10
Conductivity (uS/cm)	370	370	370	1	370	370	370	1		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	1		
pH (N/A)	7.9	7.9	7.9	1	7.9	7.9	7.9	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.09	0.14	5	0.11	0.09	0.14	5		1
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.01	
Barium	0.056	0.056	0.056	1	0.056	0.056	0.056	1	2	
Boron	0.008	0.008	0.008	1	0.008	0.008	0.008	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.100	0.100	0.100	1	0.100	0.100	0.100	1	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.72	0.72	0.72	1	0.72	0.72	0.72	1	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.080	0.080	0.080	1	0.080	0.080	0.080	1	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	0.010	0.010	0.010	1	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.05	
Strontium	0.458	0.458	0.458	1	0.458	0.458	0.458	1	7.0	
Total Chlorine	2.12	2.08	2.23	5	2.12	2.08	2.23	5	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	0.02	

2.2.10 Kaskitayo Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	118	118	118	1	118	118	118	1		
Aluminum	0.097	0.097	0.097	1	0.097	0.097	0.097	1	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1		
Calcium	47.7	47.7	47.7	1	47.7	47.7	47.7	1		
Calcium Hardness	118	118	118	1	118	118	118	1		
Chloride Dissolved	6.5	6.5	6.5	1	6.5	6.5	6.5	1	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Lithium	0.0029	0.0029	0.0029	1	0.0029	0.0029	0.0029	1		
Magnesium	14.1	14.1	14.1	1	14.1	14.1	14.1	1		
Molybdenum	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.93	0.92	0.94	2	0.93	0.92	0.94	2		
Phosphorus	0.92	0.92	0.92	1	0.92	0.92	0.92	1		
Potassium	0.70	0.70	0.70	1	0.70	0.70	0.70	1		
Silicon	1.93	1.93	1.93	1	1.93	1.93	1.93	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	7.4	7.4	7.4	1	7.4	7.4	7.4	1	(200)	
Sulphate Dissolved	61	61	61	1	61	61	61	1	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	178	178	178	1	178	178	178	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Secondary Organics (ug/L) * **										
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	1		

2.2.10 Kaskitayo Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.11 Londonderry Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Turbidity (NTU)	0.10	0.08	0.13	5	0.10	0.08	0.13	5		1
Primary Inorganics (mg/L) **										
Total Chlorine	2.15	2.10	2.25	5	2.15	2.10	2.25	5	>0.5 and <3.0	>1.0 and <2.4
Secondary Inorganics (mg/L) ***										
Ortho_P	0.91	0.90	0.92	2	0.91	0.90	0.92	2		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.12 Millwoods Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Turbidity (NTU)	0.11	0.08	0.13	5	0.11	0.08	0.13	5		1
Primary Inorganics (mg/L) **										
Total Chlorine	2.12	2.07	2.21	5	2.12	2.07	2.21	5	>0.5 and <3.0	>1.0 and <2.4
Secondary Inorganics (mg/L) ***										
Ortho_P	0.91	0.90	0.92	2	0.91	0.90	0.92	2		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.13 North Jasper Place Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.0	1.0	1.0	1	1.0	1.0	1.0	1	(15)	10
Conductivity (uS/cm)	367	367	367	1	367	367	367	1		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	1		
pH (N/A)	7.8	7.8	7.8	1	7.8	7.8	7.8	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.08	0.13	5	0.11	0.08	0.13	5		1
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.01	
Barium	0.054	0.054	0.054	1	0.054	0.054	0.054	1	2	
Boron	0.008	0.008	0.008	1	0.008	0.008	0.008	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.110	0.110	0.110	1	0.110	0.110	0.110	1	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.71	0.71	0.71	1	0.71	0.71	0.71	1	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.090	0.090	0.090	1	0.090	0.090	0.090	1	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.05	
Strontium	0.443	0.443	0.443	1	0.443	0.443	0.443	1	7.0	
Total Chlorine	1.91	1.78	2.05	5	1.91	1.78	2.05	5	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	0.02	

2.2.13 North Jasper Place Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	117	117	117	1	117	117	117	1		
Aluminum	0.102	0.102	0.102	1	0.102	0.102	0.102	1	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1		
Calcium	46.4	46.4	46.4	1	46.4	46.4	46.4	1		
Calcium Hardness	116	116	116	1	116	116	116	1		
Chloride Dissolved	6.1	6.1	6.1	1	6.1	6.1	6.1	1	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Lithium	0.0030	0.0030	0.0030	1	0.0030	0.0030	0.0030	1		
Magnesium	14.0	14.0	14.0	1	14.0	14.0	14.0	1		
Molybdenum	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.91	0.90	0.92	2	0.91	0.90	0.92	2		
Phosphorus	0.92	0.92	0.92	1	0.92	0.92	0.92	1		
Potassium	0.70	0.70	0.70	1	0.70	0.70	0.70	1		
Silicon	1.91	1.91	1.91	1	1.91	1.91	1.91	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	7.2	7.2	7.2	1	7.2	7.2	7.2	1	(200)	
Sulphate Dissolved	60	60	60	1	60	60	60	1	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	173	173	173	1	173	173	173	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Secondary Organics (ug/L) * **										
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	1		

2.2.13 North Jasper Place Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.14 Ormsby Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Turbidity (NTU)	0.11	0.09	0.12	5	0.11	0.09	0.12	5		1
Primary Inorganics (mg/L) **										
Total Chlorine	2.08	2.00	2.15	5	2.08	2.00	2.15	5	>0.5 and <3.0	>1.0 and <2.4
Secondary Inorganics (mg/L) ***										
Ortho_P	0.94	0.92	0.96	2	0.94	0.92	0.96	2		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.15 Papaschase 1 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Turbidity (NTU)	0.13	0.11	0.18	5	0.13	0.11	0.18	5		1
Primary Inorganics (mg/L) **										
Total Chlorine	1.97	1.91	2.03	5	1.97	1.91	2.03	5	>0.5 and <3.0	>1.0 and <2.4
Secondary Inorganics (mg/L) ***										
Ortho_P	0.88	0.88	0.88	2	0.88	0.88	0.88	2		

TABLE EXPLANATIONS:

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*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.16 Papaschase 2 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.4	1.4	1.4	1	1.4	1.4	1.4	1	(15)	10
Conductivity (uS/cm)	375	375	375	1	375	375	375	1		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	1		
pH (N/A)	7.9	7.9	7.9	1	7.9	7.9	7.9	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.08	0.11	5	0.10	0.08	0.11	5		1
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.01	
Barium	0.055	0.055	0.055	1	0.055	0.055	0.055	1	2	
Boron	0.008	0.008	0.008	1	0.008	0.008	0.008	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.161	0.161	0.161	1	0.161	0.161	0.161	1	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.71	0.71	0.71	1	0.71	0.71	0.71	1	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.090	0.090	0.090	1	0.090	0.090	0.090	1	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.05	
Strontium	0.445	0.445	0.445	1	0.445	0.445	0.445	1	7.0	
Total Chlorine	2.10	2.04	2.17	5	2.10	2.04	2.17	5	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	0.02	

2.2.16 Papaschase 2 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	120	120	120	1	120	120	120	1		
Aluminum	0.084	0.084	0.084	1	0.084	0.084	0.084	1	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1		
Calcium	47.3	47.3	47.3	1	47.3	47.3	47.3	1		
Calcium Hardness	116	116	116	1	116	116	116	1		
Chloride Dissolved	5.8	5.8	5.8	1	5.8	5.8	5.8	1	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Lithium	0.0030	0.0030	0.0030	1	0.0030	0.0030	0.0030	1		
Magnesium	14.1	14.1	14.1	1	14.1	14.1	14.1	1		
Molybdenum	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.90	0.90	0.90	2	0.90	0.90	0.90	2		
Phosphorus	0.89	0.89	0.89	1	0.89	0.89	0.89	1		
Potassium	0.70	0.70	0.70	1	0.70	0.70	0.70	1		
Silicon	1.93	1.93	1.93	1	1.93	1.93	1.93	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	7.0	7.0	7.0	1	7.0	7.0	7.0	1	(200)	
Sulphate Dissolved	60	60	60	1	60	60	60	1	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	177	177	177	1	177	177	177	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Secondary Organics (ug/L) * **										
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	1		

2.2.16 Papaschase 2 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.17 Rosslyn 1 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Turbidity (NTU)	0.11	0.09	0.14	5	0.11	0.09	0.14	5		1
Primary Inorganics (mg/L) **										
Total Chlorine	1.85	1.77	2.00	5	1.85	1.77	2.00	5	>0.5 and <3.0	>1.0 and <2.4
Secondary Inorganics (mg/L) ***										
Ortho_P	0.90	0.90	0.90	2	0.90	0.90	0.90	2		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.18 Rosslyn 2 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.9	0.9	0.9	1	0.9	0.9	0.9	1	(15)	10
Conductivity (uS/cm)	369	369	369	1	369	369	369	1		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	1		
pH (N/A)	7.9	7.9	7.9	1	7.9	7.9	7.9	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.10	0.13	5	0.11	0.10	0.13	5		1
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.01	
Barium	0.054	0.054	0.054	1	0.054	0.054	0.054	1	2	
Boron	0.008	0.008	0.008	1	0.008	0.008	0.008	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.184	0.184	0.184	1	0.184	0.184	0.184	1	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.71	0.71	0.71	1	0.71	0.71	0.71	1	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.090	0.090	0.090	1	0.090	0.090	0.090	1	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1	1	
Selenium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Strontium	0.443	0.443	0.443	1	0.443	0.443	0.443	1	7.0	
Total Chlorine	1.99	1.95	2.08	5	1.99	1.95	2.08	5	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	0.02	

2.2.18 Rosslyn 2 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	122	122	122	1	122	122	122	1		
Aluminum	0.081	0.081	0.081	1	0.081	0.081	0.081	1	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1		
Calcium	47.2	47.2	47.2	1	47.2	47.2	47.2	1		
Calcium Hardness	116	116	116	1	116	116	116	1		
Chloride Dissolved	5.6	5.6	5.6	1	5.6	5.6	5.6	1	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Lithium	0.0031	0.0031	0.0031	1	0.0031	0.0031	0.0031	1		
Magnesium	14.3	14.3	14.3	1	14.3	14.3	14.3	1		
Molybdenum	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.91	0.90	0.92	2	0.91	0.90	0.92	2		
Phosphorus	0.90	0.90	0.90	1	0.90	0.90	0.90	1		
Potassium	0.70	0.70	0.70	1	0.70	0.70	0.70	1		
Silicon	1.95	1.95	1.95	1	1.95	1.95	1.95	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	7.1	7.1	7.1	1	7.1	7.1	7.1	1	(200)	
Sulphate Dissolved	59	59	59	1	59	59	59	1	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	178	178	178	1	178	178	178	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Secondary Organics (ug/L) * **										
Total Organic Carbon	1.3	1.3	1.3	1	1.3	1.3	1.3	1		

2.2.18 Rosslyn 2 Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.19 Thorncliff Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.1	1.1	1.1	1	1.1	1.1	1.1	1	(15)	10
Conductivity (uS/cm)	368	368	368	1	368	368	368	1		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	1		
pH (N/A)	7.9	7.9	7.9	1	7.9	7.9	7.9	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.09	0.12	5	0.11	0.09	0.12	5		1
Primary Inorganics (mg/L) **										
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.01	
Barium	0.055	0.055	0.055	1	0.055	0.055	0.055	1	2	
Boron	0.008	0.008	0.008	1	0.008	0.008	0.008	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.109	0.109	0.109	1	0.109	0.109	0.109	1	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride	0.71	0.71	0.71	1	0.71	0.71	0.71	1	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved	0.080	0.080	0.080	1	0.080	0.080	0.080	1	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.05	
Strontium	0.447	0.447	0.447	1	0.447	0.447	0.447	1	7.0	
Total Chlorine	1.94	1.86	2.06	5	1.94	1.86	2.06	5	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	0.02	

2.2.19 Thorncliff Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) ***										
Alkalinity Total	118	118	118	1	118	118	118	1		
Aluminum	0.101	0.101	0.101	1	0.101	0.101	0.101	1	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1		
Calcium	46.9	46.9	46.9	1	46.9	46.9	46.9	1		
Calcium Hardness	116	116	116	1	116	116	116	1		
Chloride Dissolved	6.1	6.1	6.1	1	6.1	6.1	6.1	1	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Lithium	0.0030	0.0030	0.0030	1	0.0030	0.0030	0.0030	1		
Magnesium	14.2	14.2	14.2	1	14.2	14.2	14.2	1		
Molybdenum	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.90	0.88	0.92	2	0.90	0.88	0.92	2		
Phosphorus	0.93	0.93	0.93	1	0.93	0.93	0.93	1		
Potassium	0.70	0.70	0.70	1	0.70	0.70	0.70	1		
Silicon	1.95	1.95	1.95	1	1.95	1.95	1.95	1		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1		
Sodium	7.3	7.3	7.3	1	7.3	7.3	7.3	1	(200)	
Sulphate Dissolved	60	60	60	1	60	60	60	1	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)	174	174	174	1	174	174	174	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	1		
Secondary Organics (ug/L) ***										
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	1		

2.2.19 Thorncliff Reservoir

January 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-00

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

January 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
Trihalomethanes (ug/L)													100	50
01-SR				0				0	24.6	24.6	24.6	1		
02-SR	20.0	20.0	20.0	1	20.0	20.0	20.0	1	18.4	5.3	28.3	4		
03-SR				0				0	23.0	19.0	27.0	2		
04-SR	15.8	15.8	15.8	1	15.8	15.8	15.8	1	18.9	14.9	25.9	3		
05-OF				0				0	15.2	15.2	15.2	1		
05-RI				0				0	24.9	21.2	28.5	2		
07-RI	17.3	17.3	17.3	1	17.3	17.3	17.3	1	15.0	12.7	17.3	2		
07-SR				0				0	19.9	12.4	30.5	4		
10-SR				0				0	14.5	9.1	19.8	2		
11-SR				0				0	25.8	25.8	25.8	1		
14-RI				0				0	27.4	21.6	33.1	2		
14-SR				0				0	12.8	12.8	12.8	1		
15-SR				0				0	21.0	11.4	28.9	4		
19-SR				0				0	26.8	26.8	26.8	1		
21-DE				0				0	6.5	6.5	6.5	2		
21-SR				0				0	15.3	11.5	20.7	4		
24-RI				0				0	13.8	13.8	13.8	1		
24-SR				0				0	11.2	11.2	11.2	1		
25-DE				0				0	12.4	12.4	12.4	1		
26-DE				0				0	19.7	15.8	25.3	3		
27-SR				0				0	17.5	17.5	17.5	1		
28-SR				0				0	13.9	5.6	22.3	4		
29-SR				0				0	12.3	12.3	12.3	1		
31-DE	15.9	15.9	15.9	1	15.9	15.9	15.9	1	20.7	15.9	26.8	4		
31-OF				0				0	13.8	13.8	13.8	1		
31-RI				0				0	19.2	6.1	26.8	3		
31-SR				0				0	13.9	13.9	13.9	1		
32-SR	12.0	12.0	12.0	1	12.0	12.0	12.0	1	22.7	12.0	30.8	6		
36-DE				0				0	27.4	24.2	30.6	2		
40-SR	16.4	16.4	16.4	1	16.4	16.4	16.4	1	20.8	12.9	30.2	7		
41-DE				0				0	22.1	22.1	22.1	1		
	Total Count			6				6				73		

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

January 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
HAA (ug/L)													80	40
01-SR				0				0	25.2	25.2	25.2	1		
02-SR	19.8	19.8	19.8	1	19.8	19.8	19.8	1	19.9	8.6	25.6	4		
03-SR				0				0	23.3	19.6	27.0	2		
04-SR	19.1	19.1	19.1	1	19.1	19.1	19.1	1	20.8	19.1	23.9	3		
05-OF				0				0	18.6	18.6	18.6	1		
05-RI				0				0	24.4	22.4	26.4	2		
07-RI	19.0	19.0	19.0	1	19.0	19.0	19.0	1	17.2	15.3	19.0	2		
07-SR				0				0	23.3	16.7	34.9	4		
10-SR				0				0	15.9	10.3	21.5	2		
11-SR				0				0	25.2	25.2	25.2	1		
14-RI				0				0	26.7	22.5	30.9	2		
14-SR				0				0	17.2	17.2	17.2	1		
15-SR				0				0	23.4	14.2	34.6	4		
19-SR				0				0	26.1	26.1	26.1	1		
21-DE				0				0	7.7	7.7	7.7	1		
21-SR				0				0	18.6	16.8	21.1	4		
24-RI				0				0	17.2	17.2	17.2	1		
24-SR				0				0	18.1	18.1	18.1	1		
25-DE				0				0	16.5	16.5	16.5	1		
26-DE				0				0	20.8	17.7	22.9	3		
27-SR				0				0	18.0	18.0	18.0	1		
28-SR				0				0	15.6	7.3	24.8	4		
29-SR				0				0	15.8	15.8	15.8	1		
31-DE	20.5	20.5	20.5	1	20.5	20.5	20.5	1	20.7	13.4	25.0	4		
31-OF				0				0	17.3	17.3	17.3	1		
31-RI				0				0	18.7	7.4	24.9	3		
31-SR				0				0	17.2	17.2	17.2	1		
32-SR	18.4	18.4	18.4	1	18.4	18.4	18.4	1	24.3	18.4	31.0	6		
36-DE				0				0	26.8	23.8	29.7	2		
40-SR	18.7	18.7	18.7	1	18.7	18.7	18.7	1	21.7	15.9	26.4	6		
41-DE				0				0	23.8	23.8	23.8	1		
	Total Count			6				6				71		

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

January 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
NDMA (ug/L)													0.040	0.01
02-SR				0				0	0.001	<0.001	0.002	2		
03-SR				0				0	0.003	0.002	0.004	2		
04-SR	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1		
05-RI				0				0	0.004	0.004	0.004	1		
07-SR				0				0	0.007	0.005	0.010	2		
10-SR				0				0	0.001	0.001	0.001	1		
15-SR				0				0	0.001	<0.001	0.002	2		
20-OF				0				0	<0.002	<0.002	<0.002	1		
21-SR				0				0	<0.002	<0.001	0.002	2		
24-SR				0				0	<0.001	<0.001	<0.001	1		
25-DE				0				0	<0.001	<0.001	<0.001	1		
26-DE				0				0	<0.002	<0.001	<0.002	3		
31-DE	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1	<0.006	<0.002	0.011	3		
31-OF				0				0	<0.001	<0.001	<0.001	1		
31-RI				0				0	0.005	<0.001	0.010	2		
31-SR				0				0	<0.001	<0.001	<0.001	1		
32-SR				0				0	0.002	0.002	0.002	1		
36-DE				0				0	0.002	<0.001	0.002	2		
40-SR	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1	<0.003	<0.001	<0.006	6		
41-DE				0				0	0.002	0.002	0.002	1		
		Total Count		3				3				36		

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

January 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
Trihalomethanes (ug/L)													100	50
Castledowns Reservoir				0				0	19.8	11.6	28.8	5		
Clareview Reservoir	20.1	20.1	20.1	1	20.1	20.1	20.1	1	21.5	13.3	33.5	7		
Discovery Park Reservoir	18.1	18.1	18.1	1	18.1	18.1	18.1	1	17.6	6.8	29.8	7		
Kaskitayo Reservoir	14.4	14.4	14.4	1	14.4	14.4	14.4	1	20.2	11.2	29.9	7		
Londonderry Reservoir				0				0	19.1	6.1	29.2	6		
Millwoods Reservoir				0				0	15.5	<1.0	28.8	7		
North Jasper Place Reservoir	19.4	19.4	19.4	1	19.4	19.4	19.4	1	19.4	8.7	35.7	7		
Ormsby Reservoir				0				0	18.3	5.2	30.1	6		
Papaschase Reservoir 1				0				0	20.8	8.9	32.9	7		
Papaschase Reservoir 2	16.8	16.8	16.8	1	16.8	16.8	16.8	1	20.7	10.9	33.1	6		
Rosslyn Reservoir 1				0				0	18.8	<1.0	30.0	8		
Rosslyn Reservoir 2	20.1	20.1	20.1	1	20.1	20.1	20.1	1	22.8	9.4	32.6	7		
Thorncliff Reservoir	19.1	19.1	19.1	1	19.1	19.1	19.1	1	20.2	8.2	31.6	6		
		Total Count		7				7				86		

Location Code: City is divided into 28 zones by population. Location is coded by zone and site type.

DE - Dead End
FS - Firestation
KT - Key Tap
OF - Other Facilities (stores / Restaurant)
PF - Plant First Customer (Guardhouse)
PR - Private Residence (Non-Staff)
RI - Regional Influent

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

January 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Physical																
Colour (TCU)	8.8	5.2	14.0	31	9.3	5.3	14.6	30	8.8	5.2	14.0	31	9.3	5.3	14.6	30
Conductivity (uS/cm)	379	352	415	5	371	343	416	5	379	352	415	5	371	343	416	5
FPA-Intensity (N/A)	0.67	0.50	0.94	4	0.75	0.62	0.88	4	0.67	0.50	0.94	4	0.75	0.62	0.88	4
pH (N/A)	8.2	8.2	8.2	1	8.2	8.2	8.2	1	8.2	8.2	8.2	1	8.2	8.2	8.2	1
Total Dissolved Solids (mg/L)	212	212	212	1	213	213	213	1	212	212	212	1	213	213	213	1
Total Suspended Solids	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1
Turbidity (NTU)	2.1	1.2	6.1	31	2.2	1.3	4.0	30	2.1	1.2	6.1	31	2.2	1.3	4.0	30
Primary Inorganics (mg/L) **																
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Arsenic	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1
Barium	0.059	0.059	0.059	1	0.059	0.059	0.059	1	0.059	0.059	0.059	1	0.059	0.059	0.059	1
Boron	0.01	0.01	0.01	1	0.01	0.01	0.01	1	0.01	0.01	0.01	1	0.01	0.01	0.01	1
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1
Fluoride	0.12	0.11	0.13	5	0.11	0.11	0.12	5	0.12	0.11	0.13	5	0.11	0.11	0.12	5
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Manganese	0.002	0.002	0.002	1	0.005	0.005	0.005	1	0.002	0.002	0.002	1	0.005	0.005	0.005	1
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Nitrate (as N) Dissolved	0.10	0.08	0.14	5	0.08	0.08	0.08	5	0.10	0.08	0.14	5	0.08	0.08	0.08	5
Nitrite (as N) Dissolved	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01	5
Selenium	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	<0.0002	1	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	<0.0002	1
Total Chlorine	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1
Uranium	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1
Primary Organics (ug/L) **																
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Carbon Tetrachloride	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1
Chlorobenzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dichloroethylene (1,1)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1
Ethylbenzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Toluene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Total Xylenes	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1
Trichloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Trihalomethanes	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

January 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Secondary Inorganics (mg/L) ***																
Alkalinity Total	133	123	149	5	133	123	151	5	133	123	149	5	133	123	151	5
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	1
Aluminum	0.108	0.108	0.108	1	0.109	0.109	0.109	1	0.108	0.108	0.108	1	0.109	0.109	0.109	1
Ammonia as NH3	<0.05	<0.05	<0.05	5	<0.05	<0.05	<0.05	5	<0.05	<0.05	<0.05	5	<0.05	<0.05	<0.05	5
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Calcium Hardness	122	110	138	5	123	110	140	5	122	110	138	5	123	110	140	5
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1
Iron	0.073	0.073	0.073	1	0.108	0.108	0.108	1	0.073	0.073	0.073	1	0.108	0.108	0.108	1
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1
Lithium	0.0033	0.0033	0.0033	1	0.0033	0.0033	0.0033	1	0.0033	0.0033	0.0033	1	0.0033	0.0033	0.0033	1
Magnesium	14.6	14.6	14.6	1	14.4	14.4	14.4	1	14.6	14.6	14.6	1	14.4	14.4	14.4	1
Molybdenum	0.001	0.001	0.001	1	0.001	0.001	0.001	1	0.001	0.001	0.001	1	0.001	0.001	0.001	1
Nickel	0.0006	0.0006	0.0006	1	0.0005	0.0005	0.0005	1	0.0006	0.0006	0.0006	1	0.0005	0.0005	0.0005	1
Ortho_P	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Potassium	0.7	0.7	0.7	1	0.7	0.7	0.7	1	0.7	0.7	0.7	1	0.7	0.7	0.7	1
Silicon	2.09	2.09	2.09	1	2.03	2.03	2.03	1	2.09	2.09	2.09	1	2.03	2.03	2.03	1
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1
Sodium	3.8	3.8	3.8	1	3.8	3.8	3.8	1	3.8	3.8	3.8	1	3.8	3.8	3.8	1
Strontium	0.469	0.469	0.469	1	0.462	0.462	0.462	1	0.469	0.469	0.469	1	0.462	0.462	0.462	1
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1
Titanium	0.0015	0.0015	0.0015	1	0.002	0.002	0.002	1	0.0015	0.0015	0.0015	1	0.002	0.002	0.002	1
Total Hardness (mg/L CaCO3)	188	173	211	5	186	172	203	5	188	173	211	5	186	172	203	5
Total Kjeldahl Nitrogen	0.1	0.1	0.1	1	<0.1	<0.1	<0.1	1	0.1	0.1	0.1	1	<0.1	<0.1	<0.1	1
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

January 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Secondary Organics (ug/L) ***																
Bromodichloromethane	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Bromoform	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1
Chloroform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dibromochloromethane	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
MIBK	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1
Styrene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Tetrachloroethane (1,1,2,2)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1
Total Organic Carbon	2.2	1.5	3.1	5	2.2	1.2	3.2	5	2.2	1.5	3.1	5	2.2	1.2	3.2	5
Total Volatile Organics (NonTHM)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1
Total Volatile Organics (Unknown)	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	1
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1

2.2.22 EFFLUENT WASTESTREAM TO SANITARY SEWER (PLANTS) - REGULATED (EPCOR Drainage Bylaw)

(Lab Neutralization Tank in Water Excellence Lab Building)

Date	pH**
05-Jan-2024	7.47
11-Jan-2024	7.09
17-Jan-2024	7.78
24-Jan-2024	7.26
31-Jan-2024	7.37

**Drainage By-Law 18093 Acceptable Range is 6.0 to 11.5

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Alkalinity phenolphthalein	3	mg CaCO3/L
Alkalinity Total	6	mg CaCO3/L
Aluminum	0.005	mg/L
Ammonia as N	0.05	mg/L
Ammonia as NH3	0.05	mg/L
Antimony	0.0002	mg/L
Arsenic	0.0002	mg/L
Barium	0.002	mg/L
Benzene	0.5	µg/L
Beryllium	0.0002	mg/L
Boron	0.005	mg/L
Bromate Dissolved	0.005	mg/L
Bromide Dissolved	0.01	mg/L
Bromodichloromethane	0.5	µg/L
Bromoform	0.5	µg/L
Cadmium	0.0002	mg/L
Calcium	0.1	mg/L
Calcium Dissolved	0.1	mg/L
Calcium Hardness	2	mg/L CaCO3
Carbon Tetrachloride	0.5	µg/L
Cellular ATP	0.1	pg/mL
Chlorate Dissolved	0.01	mg/L
Chloride Dissolved	0.1	mg/L
Chlorite Dissolved	0.005	mg/L
Chlorobenzene	0.5	µg/L
Chloroform	0.5	µg/L
Chromium	0.0002	mg/L
Cobalt	0.0002	mg/L
Coliforms, total	1	PA/100mL
Colour	0.5	TCU
Conductivity	1	µS/cm
Copper	0.005	mg/L
Copper Dissolved	0.005	mg/L
Dibromochloromethane	0.5	µg/L
Dichlorobenzene (1,2)	0.5	µg/L
Dichlorobenzene (1,3)	0.5	µg/L
Dichlorobenzene (1,4)	0.5	µg/L
Dichloroethane (1,2)	0.5	µg/L
Dichloroethylene (1,1)	0.5	µg/L
Dichloroethylene, cis (1,2)	0.5	µg/L
Dichloroethylene, trans (1,2)	0.5	µg/L
Dichloropropane (1,2)	0.5	µg/L
E. coli	1	PA/100mL
Ethylbenzene	0.5	µg/L
Fluoride	0.05	mg/L
Free Chlorine	0.07	mg/L
Iron	0.005	mg/L
Lanthanum	0.001	mg/L
Lead	0.0002	mg/L
Lithium	0.0002	mg/L
Magnesium	0.1	mg/L
Manganese	0.002	mg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Manganese Dissolved	0.002	mg/L
Mercury	0.0002	mg/L
Methyl t-Butyl Ether (MTBE)	0.5	µg/L
Methylene Chloride	0.5	µg/L
MIBK	1.0	µg/L
Molybdenum	0.0002	mg/L
Nickel	0.0005	mg/L
Nitrate (as N) Dissolved	0.01	mg/L
Nitrite (as N) Dissolved	0.01	mg/L
Ortho_P	0.02	mg/L as P
Phosphorus	0.02	mg/L
Potassium	0.1	mg/L
Pseudomonas	1	MPN/100mL
Selenium	0.0002	mg/L
Silicon	0.05	mg/L
Silver	0.0002	mg/L
Sodium	0.1	mg/L
Strontium	0.002	mg/L
Styrene	0.5	µg/L
Sulphate Dissolved	0.2	mg/L
Tetrachloroethane (1,1,2,2)	0.5	µg/L
Tetrachloroethylene	0.5	µg/L
Thallium	0.0005	mg/L
Tin	0.0005	mg/L
Titanium	0.0005	mg/L
Toluene	0.5	µg/L
Total Dissolved Solids	25	mg/L
Total Hardness	2	mg/L CaCO3
Total Kjeldahl Nitrogen	0.1	mg/L N
Total Organic Carbon	0.6	mg/L
Total Suspended Solids	2.5	mg/L
Total Volatile Organics (NonTHM)	1.0	µg/L
Total Volatile Organics (Unknown)	0.5	µg/L
Total Xylenes	1.0	µg/L
Trichlorobenzene (1,2,4)	0.5	µg/L
Trichloroethane (1,1,1)	0.5	µg/L
Trichloroethylene	0.5	µg/L
Trihalomethanes	1.0	µg/L
Turbidity	0.04	NTU
Uranium	0.0005	mg/L
UV 254 % Transmittance	99.8	%T/cm
Vanadium	0.0005	mg/L
Vinyl Chloride	1.0	µg/L
Xylene (1,2)	0.5	µg/L
Xylene (1,4)	0.5	µg/L
Zinc	0.005	mg/L
Zirconium	0.001	mg/L
Zirconium Dissolved	0.001	mg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Contract Lab Analysis		
Bromochloroacetic acid	1.00	ug/L
Cryptosporidium	6.9	oocysts/100L
Dibromoacetic acid	1.00	ug/L
Dichloroacetic acid	1.00	ug/L
Giardia	6.9	cysts/100L
Haloacetic Acids, total (HAA5)	5.00	ug/L
Monobromoacetic acid	1.00	ug/L
Monochloroacetic acid	1.00	ug/L
NDMA	0.00600	µg/L
Trichloroacetic acid	1.00	ug/L

2.2.24 EXPLANATION OF NOTATIONS USED

Concentrations are reported as mg/L unless otherwise indicated.
Alkalinity and Hardness (Ca and Total) are reported as mg $CaCO_3$/L

%T	=	% Transmission
- ve	=	Absent
+ ve	=	Present
µg/L	=	Micrograms per litre (1 µg/L = 0.001 mg/L)
µS/cm	=	Microsiemens per centimeter (unit of conductivity)
2/Y	=	Twice per Year
AO	=	Aesthetic Objective
Bq/L	=	Becquerel(s) per litre (unit of radionuclide concentration)
CCPP	=	Calcium Carbonate Precipitation Potential
CFU	=	Colony Forming Units
Comm	=	Commercial Laboratories
D	=	Daily
EWSI	=	EPCOR Water Services Inc.
FPA	=	Flavour Profile Analysis
GCDWQ	=	Guidelines for Canadian Drinking Water Quality
GM	=	Geometric Mean
HPC	=	Heterotrophic Plate Count
inoff	=	Inoffensive (no objectionable odour)
M	=	Monthly
MAC	=	Maximum Acceptable Concentration
MDL	=	Method Detection Limit
N/A	=	Not Available
ND	=	Not Detected
NTU	=	Nephelometric Turbidity Units
PA	=	Presence/Absence Testing
PBR	=	Performance Based Rates
PHP	=	phenolphthalein
PLPH	=	Provincial Laboratory of Public Health
ppb	=	Parts Per Billion
ppm	=	Parts Per Million
Q	=	Quarterly
QA	=	Quality Assurance
QC	=	Quality Control
RDL	=	Reportable Detection Limit
TCU	=	True Colour Units
TDS	=	Total Dissolved Solids
TOC	=	Total Organic Carbon
WL	=	Water Laboratory
WTP	=	Water Treatment Plant