EDMONTON WATERWORKS
MONTHLY REPORT

December 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 December, Rossdale Plant had 2 planned shutdowns and no unplanned bypasses.

Date	Type	Bypass Description
Dec 3-4	Planned	8.6 hour shutdown for capital project work
Dec 9-11	Planned	34.7 hour shutdown for capital project work

In December, E.L. Smith Plant had 1 unplanned bypass and 1 planned bypass.

Date	Type	Bypass Description
Dec 3	Planned	0.5 hour bypass for maintenance work
Dec 10	Unplanned	0.60 hour bypass for operational troubleshooting

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

Chemical Dosing Highlights

In December, 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 – December 2024

EPCOR Incident Number	Description	Date of Incident	AEPA Reference Number
ENV-20241214-862888-v1	About 49 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 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.	December 14, 2024	436130
ENV-20241216-757534-v1).	About 69 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 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.	December 16, 2024	436171
ENV-20241218-240851-v1	About 27 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 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.	December 18, 2024	436224
ENV-20241218-945450-v1	About 51 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 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.	December 18, 2024	436201
ENV-20241225-370419-v1	About 55 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 catch basin. Dechlorination pucks were placed in the path of water and the water entry point	December 25, 2024	436393

	into the drainage infrastructure to dechlorinate the water The leak was isolated until the repair was completed.		
ENV-20241225-347211-v1	About 46 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 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.	December 25, 2024	436392

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 III
Operator I	WT II
Operator I	WT III
Lead Hand, Operator	WT III
Operator I	WT III, WD II
Operator I	WT III, WWT III
Operator I	WT II
Operator I	WT II, WD II, WWT II, WWC II
Operator I	WT II, WD I
Operator I (temp)	WT II, WD II, WWT I, WWC II

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	
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 IV
Lead Hand, Operator	WT IV
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
Operator I	WT III, WWT II,
Operator I	WT II
Operator I	WT III, WWT III
Operator I	WT III
Operator I	WT II, 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 III	WD II
Foreman I	WD III WWC I
Foreman I	WD III
Foreman I	WD IV
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
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 I
Equipment Operator III	WD II
Equipment Operator III	WD II
Labourer II	WD II
Labourer II	WD I
Labourer II	WD I
Labourer II	WD I
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 WWC I
Labourer II	WD I WWC I WT I WWT I
Truck Driver III	WD II
Labourer II	WD II
Truck Driver III	WD II
Truck Driver III	WD II
Truck Driver III	WD I
Truck Driver III	WD I
Welder	WD II
Maintenance Repairman I	WD II
Maintenance Repairman I	WD I
Maintenance Repairman I	WD I
Labourer II	WD I
Foreman I	WD I
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 I
Labourer III	WD I
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
Foreman I	WD II
Labourer II	WD I
Labourer III	WD II
Labourer II	WD II
Labourer II	WD I
Labourer III	WD I
Labourer II	WD II WWC I
Foreman III	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
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
Dispatcher Coordinator	WD I WWC I WT I WWT I
Inspector – Water Metering	WD II
Inspector – Water Metering	WD I
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 Installer I	WD I
Meter Installer II	WD III
Meter Installer I	WD I WWC I
Meter Installer I	WD III
Meter Installer I	WD II
Meter Mechanic II	WD II
Meter Installer II	WD I
Meter Installer I	WD I
Meter Installer I	WD I

1.2.1 Raw Water Intake (ML)

December 2024

Day	Rossdale			E.L. Smith	Plants Combined Total
	Plant 1	Plant 2	Plant Total	Plant Total	
1	--	160	160	280	440
2	--	160	160	299	459
3	--	150	150	315	465
4	12	135	147	261	408
5	55	117	172	300	472
6	60	110	170	311	481
7	60	92	152	278	430
8	73	46	120	262	382
9	66	83	149	294	443
10	--	--	--	314	314
11	72	68	140	321	461
12	90	81	170	307	477
13	84	80	164	281	445
14	74	74	148	260	408
15	70	76	146	264	410
16	80	80	160	281	441
17	107	45	152	281	433
18	140	0.5	141	281	421
19	133	--	133	274	407
20	112	36	148	271	419
21	78	85	163	271	434
22	75	85	160	271	431
23	70	85	155	266	420
24	65	85	150	261	411
25	65	85	150	261	411
26	64	84	148	255	403
27	60	80	140	251	391
28	67	80	147	251	398
29	70	80	150	251	401
30	77	80	157	251	408
31	80	80	160	251	411
Monthly Total	2,057	2,502	4,559	8,573	13,132
Monthly Min	0.0	0.0	0.0	251	
Monthly Max	140	160	172	321	
Monthly Avg	66	81	147	277	424

NOTES: ' -- ' indicates plant offline

1.2.2 Treated Water Production (ML)

December 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	73	206	146	200	290	225	371	82.2
2	84	206	143	202	292	241	383	78.1
3	4.2	204	132	0.0	287	249	381	82.2
4	5.2	205	106	166	281	205	311	74.2
5	74	202	151	206	287	255	405	71.9
6	84	204	152	206	294	262	414	81.3
7	85	204	137	239	281	234	371	88.9
8	30	180	107	171	282	223	329	87.8
9	9.2	203	129	202	289	249	378	82.9
10	--	--	0.0	222	291	263	262	76.6
11	18	209	106	205	297	272	378	59.0
12	75	207	154	236	295	260	414	68.8
13	76	197	145	206	293	238	383	74.3
14	57	202	136	200	214	217	353	75.5
15	60	201	130	203	283	222	351	72.0
16	76	199	149	203	283	238	387	68.5
17	77	183	137	201	293	245	382	70.3
18	88	207	131	203	289	241	372	71.7
19	54	205	123	201	287	233	356	72.4
20	59	185	130	205	291	232	361	69.2
21	95	206	152	206	292	231	383	69.8
22	67	209	147	201	271	232	380	70.6
23	79	208	137	202	288	225	362	71.5
24	58	205	140	201	296	228	368	69.8
25	48	187	135	202	295	225	360	69.3
26	70	198	136	202	286	220	356	74.2
27	57	205	125	202	216	210	336	75.0
28	68	204	135	204	217	220	355	72.0
29	65	206	136	205	218	213	349	70.6
30	77	207	142	206	296	226	369	69.5
31	71	208	147	205	287	221	368	69.8
Monthly Tota			4,074			7,253	11,327	
Monthly Min	4.2			0.0				
Monthly Max		209			297			
Monthly Avg			131			234	365	

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

December 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	7.5	60	25	8.1	8.1	8.1	3.2	4.3	3.5	6.2	36	11	8.1	8.2	8.1	4.3	5.8	5.3
2	4.6	7.5	6.2	8.1	8.2	8.2	4.3	5.6	5.0	3.7	6.2	4.4	8.1	8.2	8.1	5.6	5.9	5.7
3	4.6	4.8	4.6	8.1	8.2	8.1	4.3	5.6	5.3	3.0	3.8	3.5	8.1	8.2	8.1	5.5	6.0	5.8
4	3.0	4.8	4.4	8.1	8.1	8.1	2.6	5.7	4.8	2.5	3.0	2.6	8.1	8.1	8.1	2.8	5.5	4.5
5	2.8	3.0	3.0	8.1	8.2	8.1	2.6	3.8	3.3	2.4	2.7	2.5	8.1	8.2	8.1	2.8	4.0	3.8
6	2.8	3.4	2.9	8.2	8.2	8.2	3.2	3.8	3.7	2.5	2.6	2.6	8.1	8.1	8.1	3.1	3.7	3.3
7	3.4	3.8	3.6	8.1	8.2	8.2	2.7	3.2	2.9	2.4	2.6	2.5	8.1	8.1	8.1	2.6	3.1	2.8
8	3.5	5.6	4.6	8.1	8.2	8.1	2.7	3.2	2.7	2.4	2.6	2.5	8.0	8.1	8.0	2.3	3.5	3.1
9	3.5	3.7	3.6	8.1	8.2	8.1	3.2	3.2	3.2	2.4	2.9	2.8	8.0	8.2	8.1	2.9	3.5	3.1
10	--	--	--	--	--	--	--	--	--	2.5	2.7	2.6	8.1	8.2	8.1	2.8	3.1	2.9
11	2.6	4.3	3.8	8.1	8.1	8.1	3.2	3.9	3.5	2.0	2.6	2.4	8.0	8.1	8.1	2.6	2.8	2.7
12	2.4	3.0	2.8	8.1	8.2	8.1	2.5	3.2	2.9	2.0	2.4	2.2	8.0	8.1	8.1	2.6	3.6	3.1
13	2.4	2.7	2.5	8.1	8.1	8.1	2.5	2.8	2.7	1.9	2.9	2.1	8.1	8.1	8.1	2.7	3.1	2.8
14	2.6	2.7	2.7	8.1	8.1	8.1	2.5	3.6	2.7	1.8	2.4	2.2	8.1	8.1	8.1	2.4	3.1	2.7
15	2.3	2.6	2.4	8.1	8.1	8.1	2.0	2.9	2.3	1.8	2.1	2.0	8.1	8.1	8.1	2.4	2.8	2.7
16	2.3	2.9	2.7	8.1	8.1	8.1	2.4	3.2	2.7	1.8	2.5	2.0	8.1	8.2	8.1	2.7	3.0	2.8
17	2.1	2.3	2.2	8.1	8.1	8.1	2.6	3.4	3.0	1.7	2.5	2.0	8.0	8.1	8.1	2.5	3.2	2.7
18	2.0	3.3	2.2	8.1	8.2	8.1	2.7	3.4	2.9	1.7	1.9	1.8	7.9	8.1	8.0	2.8	3.2	2.8
19	2.1	3.3	2.6	8.1	8.1	8.1	1.8	3.1	2.3	1.6	1.8	1.7	8.1	8.1	8.1	2.5	3.0	2.7
20	2.2	2.8	2.3	8.1	8.2	8.1	2.6	3.1	2.8	1.7	2.3	2.1	8.1	8.2	8.1	2.5	2.9	2.7
21	2.8	3.2	2.9	8.1	8.2	8.1	2.6	3.0	2.7	2.0	2.3	2.1	8.1	8.1	8.1	2.9	3.1	3.0
22	2.5	3.2	2.8	8.1	8.1	8.1	2.9	3.0	2.9	1.9	2.6	2.2	8.0	8.1	8.1	2.6	3.1	2.8
23	2.4	4.1	2.9	8.1	8.1	8.1	3.0	3.2	3.0	2.0	2.6	2.3	8.0	8.1	8.1	3.0	3.1	3.0
24	2.9	4.1	3.5	8.1	8.1	8.1	2.6	3.2	2.8	2.4	2.6	2.5	8.1	8.1	8.1	2.7	3.1	2.9
25	3.5	4.0	3.7	8.1	8.1	8.1	2.5	2.7	2.6	2.5	3.1	2.9	8.1	8.1	8.1	2.6	3.2	2.9
26	3.0	4.0	3.4	8.1	8.1	8.1	2.7	3.2	2.9	2.4	3.0	2.6	8.0	8.1	8.1	2.5	2.8	2.6
27	2.9	4.6	3.3	8.1	8.1	8.1	2.4	3.2	2.7	2.5	2.7	2.6	8.0	8.1	8.0	2.3	2.8	2.6
28	3.0	4.6	3.7	8.1	8.1	8.1	2.4	2.5	2.4	2.5	3.1	2.8	8.0	8.0	8.0	2.3	3.1	2.8
29	2.4	3.0	2.7	8.0	8.1	8.0	2.1	2.9	2.3	1.9	2.7	2.3	8.0	8.0	8.0	2.5	2.8	2.6
30	2.1	2.4	2.3	8.0	8.1	8.1	1.9	3.5	2.4	1.9	2.6	2.2	8.0	8.1	8.0	2.5	2.7	2.6
31	1.9	2.1	2.0	8.1	8.1	8.1	2.1	3.5	2.9	1.8	2.1	1.9	8.0	8.1	8.0	2.5	3.4	2.9
Monthly Min/Max/Avg	1.9	60	3.9	8.0	8.2	8.1	1.8	5.7	3.1	1.6	36	2.7	7.9	8.2	8.1	2.3	6.0	3.2

NOTES: ' -- ' indicates plant offline

1.2.4 Treated Water Quality Entering the Distribution System

December 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	0.04	0.05	0.04	1.91	2.21	1.98	8.0	8.1	8.1	0.70	0.71	0.71	94	0.3	0.07	0.08	0.07	1.93	1.98	1.94	7.8	7.8	7.8	0.72	0.73	0.73	94	0.9
2	0.04	0.05	0.04	1.86	2.16	2.05	8.0	8.1	8.1	0.70	0.71	0.71	186	0.7	0.07	0.07	0.07	1.93	2.00	1.95	7.8	7.8	7.8	0.71	0.73	0.73	193	0.9
3	0.04	0.05	0.05	2.01	2.21	2.10	8.1	8.1	8.1	0.71	0.73	0.72	193	1.0	0.07	0.07	0.07	1.98	2.05	2.02	7.8	7.8	7.8	0.71	0.72	0.71	194	1.0
4	0.04	0.05	0.04	1.91	2.42	2.12	8.1	8.1	8.1	0.72	0.73	0.72	198	0.5	0.07	0.07	0.07	1.98	2.03	2.01	7.8	7.8	7.8	0.70	0.71	0.71	196	0.8
5	0.04	0.05	0.05	2.06	2.46	2.21	8.1	8.1	8.1	0.71	0.72	0.72	194	0.9	0.06	0.07	0.07	2.01	2.08	2.03	7.8	7.9	7.9	0.70	0.71	0.71	190	0.7
6	0.04	0.04	0.04	2.06	2.16	2.10	8.1	8.1	8.1	0.71	0.78	0.72	182	1.0	0.06	0.07	0.07	2.01	2.04	2.03	7.9	7.9	7.9	0.70	0.71	0.70	177	0.7
7	0.03	0.04	0.04	2.06	2.26	2.14	8.1	8.1	8.1	0.71	0.72	0.72	181	0.5	0.06	0.07	0.07	1.98	2.03	1.99	7.9	7.9	7.9	0.70	0.71	0.70	178	0.5
8	0.04	0.04	0.04	1.96	2.26	2.13	8.1	8.1	8.1	0.71	0.74	0.72	178	0.2	0.06	0.07	0.06	1.95	2.03	1.98	7.9	7.9	7.9	0.70	0.71	0.71	174	0.5
9	0.04	0.05	0.04	1.75	2.21	2.33	8.0	8.1	8.1	0.71	0.77	0.72	174	0.5	0.06	0.06	0.06	1.98	2.03	1.99	7.9	7.9	7.9	0.70	0.71	0.71	175	0.7
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06	0.06	1.98	2.03	2.01	7.9	7.9	7.9	0.70	0.71	0.71	169	0.4
11	0.04	0.05	0.05	1.91	2.16	2.07	8.1	8.1	8.1	0.69	0.76	0.73	176	0.7	0.06	0.09	0.06	1.98	2.03	2.02	7.9	7.9	7.9	0.70	0.71	0.71	172	0.6
12	0.03	0.05	0.03	2.01	2.26	2.15	8.1	8.1	8.1	0.73	0.74	0.73	174	0.5	0.06	0.07	0.06	1.98	2.03	2.00	7.9	7.9	7.9	0.70	0.71	0.71	173	0.5
13	0.03	0.05	0.04	2.06	2.32	2.20	8.1	8.1	8.1	0.73	0.75	0.74	174	0.4	0.06	0.07	0.07	1.98	2.03	2.00	7.9	7.9	7.9	0.70	0.71	0.71	174	0.5
14	0.03	0.05	0.03	1.96	2.32	2.14	8.1	8.1	8.1	0.74	0.76	0.75	174	0.4	0.06	0.06	0.06	1.98	2.02	1.99	7.9	7.9	7.9	0.71	0.72	0.71	177	0.6
15	0.03	0.05	0.04	2.01	2.16	2.07	8.1	8.1	8.1	0.74	0.75	0.74	176	0.5	0.06	0.06	0.06	1.98	2.02	1.98	7.9	7.9	7.9	0.71	0.72	0.71	175	0.5
16	0.03	0.05	0.03	1.96	2.21	2.07	8.1	8.1	8.1	0.74	0.75	0.75	178	0.6	0.06	0.07	0.06	1.98	2.02	1.99	7.9	8.0	7.9	0.71	0.72	0.72	175	0.6
17	0.04	0.08	0.04	1.91	2.11	2.00	8.1	8.1	8.1	0.74	0.76	0.75	174	0.6	0.06	0.07	0.06	1.98	2.03	2.00	7.9	8.2	8.1	0.71	0.72	0.71	174	0.6
18	0.05	0.08	0.05	1.96	2.11	2.05	8.1	8.1	8.1	0.75	0.76	0.75	177	0.5	0.06	0.06	0.06	1.93	2.08	1.99	8.2	8.2	8.2	0.71	0.72	0.71	176	0.8
19	0.05	0.05	0.05	1.91	2.11	1.99	8.1	8.2	8.1	0.75	0.77	0.76	181	0.5	0.06	0.06	0.06	1.93	1.98	1.95	8.2	8.2	8.2	0.71	0.72	0.72	186	0.6
20	0.04	0.07	0.04	1.91	2.21	2.06	8.1	8.2	8.1	0.75	0.77	0.76	181	0.8	0.06	0.07	0.07	1.93	1.98	1.95	8.2	8.2	8.2	0.71	0.72	0.72	185	0.7
21	0.05	0.07	0.06	1.91	2.21	2.05	8.1	8.1	8.1	0.76	0.77	0.77	191	0.7	0.07	0.07	0.07	1.93	1.99	1.96	8.2	8.2	8.2	0.71	0.73	0.72	189	0.7
22	0.04	0.06	0.05	2.06	2.16	2.10	8.1	8.1	8.1	0.76	0.78	0.76	192	0.5	0.06	0.07	0.07	1.96	2.01	1.98	8.2	8.2	8.2	0.71	0.71	0.71	192	0.6
23	0.04	0.07	0.05	2.01	2.16	2.07	7.9	8.2	8.0	0.76	0.78	0.77	191	0.6	0.07	0.07	0.07	1.93	2.00	1.96	8.2	8.2	8.2	0.70	0.71	0.71	193	0.8
24	0.04	0.06	0.05	1.96	2.16	2.04	7.9	7.9	7.9	0.76	0.78	0.77	190	0.5	0.07	0.07	0.07	1.92	1.98	1.93	7.6	8.2	7.8	0.70	0.71	0.71	186	0.8
25	0.04	0.06	0.05	1.91	2.11	2.03	7.9	7.9	7.9	0.76	0.78	0.77	183	0.4	0.06	0.07	0.06	1.93	1.98	1.94	7.6	7.6	7.6	0.70	0.71	0.71	181	0.5
26	0.04	0.06	0.05	1.96	2.11	2.04	7.9	7.9	7.9	0.77	0.78	0.77	179	0.5	0.06	0.06	0.06	1.89	1.98	1.93	7.6	7.6	7.6	0.69	0.71	0.70	176	0.7
27	0.03	0.06	0.04	1.91	2.16	2.02	7.9	7.9	7.9	0.76	0.78	0.77	178	0.4	0.06	0.06	0.06	1.88	1.93	1.91	7.6	7.6	7.6	0.69	0.70	0.70	174	0.7
28	0.05	0.06	0.06	1.91	2.11	2.01	7.8	7.9	7.9	0.76	0.78	0.77	171	0.2	0.06	0.06	0.06	1.91	1.97	1.93	7.6	7.7	7.7	0.69	0.70	0.70	174	0.5
29	0.04	0.06	0.05	2.01	2.26	2.13	7.9	8.0	7.9	0.76	0.79	0.78	173	0.7	0.06	0.06	0.06	1.91	1.98	1.94	7.7	7.7	7.7	0.70	0.70	0.70	172	0.6
30	0.05	0.06	0.05	1.96	2.32	2.10	7.9	7.9	7.9	0.77	0.79	0.78	176	0.3	0.06	0.06	0.06	1.93	1.98	1.95	7.7	7.7	7.7	0.70	0.70	0.70	172	0.6
31	0.05	0.07	0.06	1.91	2.06	2.01	7.9	7.9	7.9	0.77	0.79	0.78	176	0.6	0.06	0.06	0.06	1.89	1.98	1.93	7.7	7.7	7.7	0.70	0.70	0.70	176	0.8
Monthly Min/Max/ Avg	0.03	0.08	0.04	1.75	2.46	2.09	7.8	8.2	8.0	0.69	0.79	0.75	178	0.6	0.06	0.09	0.06	1.88	2.08	1.97	7.6	8.2	7.9	0.69	0.73	0.71	177	0.7

NOTES: ' -- ' indicates plant offline

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

December 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	3	24	8	5	27	9	4	21	12	7	26	14	14	32	24	3	18	10	3	18	8	5	40	12	8	22	13
2	3	14	8	2	8	4	3	21	11	5	21	11	3	18	9	3	19	8	3	25	15	3	15	8	3	13	6
3	1	15	5	5	16	8	2	10	5	2	20	7	9	24	13	1	23	4	6	16	10	3	28	12	2	17	11
4	5	15	10	1	7	4	--	--	--	3	12	7	--	--	--	4	15	9	12	30	15	4	12	8	7	16	12
5	2	11	5	4	13	6	4	23	8	2	12	6	5	26	10	1	6	3	3	15	7	1	7	3	1	9	4
6	2	8	5	1	7	4	3	9	5	2	11	5	2	24	6	2	24	5	1	6	3	1	22	5	1	24	5
7	1	4	2	1	3	2	3	8	4	2	22	6	3	10	6	1	4	2	5	20	7	2	7	4	2	8	5
8	--	--	--	2	10	4	1	5	2	1	20	4	2	21	5	5	16	7	3	8	5	1	4	2	1	4	2
9	1	7	4	1	21	4	5	16	7	3	24	6	5	12	8	2	8	4	2	24	5	1	23	6	1	21	4
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	2	12	6	3	24	6	2	11	5	3	23	7	11	25	15	2	10	5	3	14	6	3	13	6	--	--	--
12	1	19	3	1	5	3	1	6	2	1	12	3	3	16	6	1	4	2	5	20	8	1	5	2	4	26	8
13	3	9	5	1	3	1	4	16	6	1	15	3	2	15	4	1	38	4	1	9	5	1	23	4	1	7	3
14	1	5	3	7	16	11	1	7	4	3	8	5	6	26	9	1	32	2	1	28	3	2	7	4	1	45	3
15	3	16	5	1	11	4	4	15	5	1	9	3	2	9	5	1	45	5	4	22	6	1	22	2	2	8	4
16	2	6	4	1	3	1	2	6	4	4	11	7	4	23	6	1	5	3	2	6	4	3	9	5	1	4	2
17	2	16	5	2	12	3	1	4	3	3	8	5	2	6	4	1	2	1	1	21	3	1	5	3	3	16	5
18	3	40	9	1	4	2	3	12	5	2	18	4	1	4	3	2	14	4	2	8	5	--	--	--	1	6	3
19	2	27	5	1	11	1	2	5	3	3	8	5	6	28	11	1	4	2	1	4	3	3	24	5	1	3	2
20	6	27	11	2	7	3	1	19	4	1	7	3	2	25	5	1	2	1	1	23	4	1	5	3	3	13	5
21	2	15	6	1	11	2	2	5	3	3	12	5	2	19	7	2	12	4	1	7	4	1	3	2	1	6	3
22	2	12	4	2	7	4	1	21	4	2	8	4	2	8	5	1	4	2	1	23	3	4	20	7	1	12	6
23	1	31	2	1	4	2	2	6	4	2	14	3	2	6	3	3	18	5	1	36	7	1	6	3	3	15	6
24	1	10	1	2	12	5	1	3	2	3	18	6	6	18	8	1	24	2	1	8	4	6	24	9	1	36	5
25	1	15	7	1	23	3	3	11	5	1	22	5	2	10	5	1	1	1	1	3	2	2	8	5	4	21	6
26	2	19	5	1	20	2	1	8	2	4	19	6	1	10	3	1	13	4	4	25	8	1	4	2	1	37	5
27	1	7	2	2	10	3	--	--	--	1	18	3	1	11	5	1	3	1	2	7	4	1	2	1	1	45	6
28	2	8	5	1	4	2	1	5	7	1	11	3	1	6	3	--	--	--	1	4	2	4	25	7	1	6	3
29	1	4	2	1	10	3	1	11	3	2	6	4	1	6	2	1	12	3	2	18	4	1	7	3	1	2	1
30	1	21	4	1	4	2	2	5	3	1	6	2	2	18	5	1	3	1	1	4	2	1	2	1	2	9	4
31	1	6	2	1	10	1	1	4	2	2	8	4	1	4	2	2	12	4	1	14	4	1	25	4	1	5	2
Monthly Min/Max/Avg	1	40	5	1	27	4	1	23	5	1	26	5	1	32	7	1	45	4	1	36	5	1	40	5	1	45	5

NOTE: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

1.2.8 Rossdale Filters 1 - 9 Turbidity (NTU)

December 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	0.02	0.10	0.04	0.03	0.10	0.05	0.01	0.03	0.02	0.02	0.04	0.03	0.03	0.08	0.05	0.02	0.04	0.02	0.03	0.04	0.03	0.02	0.08	0.03	0.02	0.09	0.04
2	0.03	0.06	0.04	0.03	0.05	0.03	0.01	0.08	0.04	0.02	0.08	0.03	0.03	0.05	0.03	0.02	0.09	0.03	0.03	0.08	0.06	0.02	0.04	0.03	0.02	0.03	0.03
3	0.02	0.09	0.03	0.04	0.06	0.05	0.02	0.04	0.02	0.01	0.09	0.03	0.03	0.09	0.04	0.01	0.08	0.02	0.03	0.05	0.04	0.02	0.07	0.04	0.02	0.08	0.04
4	0.03	0.06	0.04	0.03	0.07	0.03	--	--	--	0.01	0.03	0.02	--	--	--	0.02	0.04	0.03	0.05	0.07	0.06	0.02	0.03	0.03	0.03	0.05	0.04
5	0.02	0.09	0.03	0.04	0.09	0.05	0.02	0.09	0.05	0.01	0.09	0.03	0.03	0.09	0.04	0.01	0.04	0.02	0.03	0.05	0.04	0.02	0.02	0.02	0.02	0.05	0.02
6	0.02	0.04	0.03	0.03	0.04	0.03	0.02	0.05	0.03	0.01	0.04	0.02	0.03	0.07	0.04	0.01	0.06	0.03	0.02	0.03	0.03	0.02	0.06	0.03	0.02	0.08	0.03
7	0.02	0.04	0.02	0.02	0.04	0.03	0.02	0.04	0.02	0.02	0.06	0.03	0.03	0.04	0.03	0.02	0.01	0.01	0.04	0.08	0.04	0.02	0.03	0.02	0.02	0.04	0.02
8	--	--	--	0.03	0.06	0.04	0.01	0.02	0.01	0.01	0.06	0.02	0.03	0.06	0.03	0.03	0.07	0.05	0.03	0.05	0.03	0.02	0.03	0.02	0.01	0.04	0.02
9	0.03	0.07	0.04	0.03	0.07	0.03	0.03	0.07	0.04	0.01	0.06	0.02	0.03	0.05	0.04	0.02	0.03	0.02	0.02	0.07	0.03	0.02	0.05	0.03	0.01	0.06	0.03
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	0.02	0.07	0.03	0.03	0.05	0.04	0.02	0.05	0.03	0.02	0.05	0.03	0.05	0.05	0.05	0.02	0.05	0.03	0.03	0.06	0.03	0.02	0.05	0.03	--	--	--
12	0.02	0.06	0.02	0.02	0.06	0.03	0.01	0.02	0.02	0.01	0.03	0.02	0.02	0.05	0.03	0.01	0.02	0.01	0.04	0.06	0.04	0.02	0.04	0.02	0.03	0.06	0.04
13	0.02	0.06	0.03	0.02	0.04	0.02	0.02	0.06	0.03	0.01	0.05	0.02	0.02	0.04	0.02	0.01	0.05	0.03	0.03	0.04	0.03	0.02	0.07	0.02	0.02	0.07	0.03
14	0.02	0.03	0.02	0.05	0.06	0.05	0.01	0.08	0.02	0.01	0.03	0.02	0.03	0.06	0.04	0.01	0.02	0.01	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.03
15	0.03	0.06	0.03	0.03	0.06	0.03	0.03	0.05	0.03	0.01	0.02	0.01	0.03	0.05	0.03	0.01	0.05	0.02	0.03	0.06	0.04	0.02	0.06	0.02	0.02	0.05	0.03
16	0.02	0.03	0.03	0.02	0.04	0.03	0.02	0.03	0.02	0.03	0.05	0.04	0.03	0.06	0.04	0.01	0.03	0.02	0.03	0.03	0.03	0.02	0.05	0.03	0.02	0.04	0.02
17	0.02	0.07	0.03	0.03	0.06	0.03	0.01	0.02	0.02	0.01	0.05	0.02	0.02	0.05	0.03	0.01	0.03	0.01	0.02	0.07	0.03	0.02	0.02	0.02	0.03	0.05	0.04
18	0.02	0.06	0.03	0.02	0.03	0.03	0.02	0.05	0.03	0.01	0.05	0.02	0.02	0.03	0.03	0.02	0.05	0.03	0.03	0.05	0.04	--	--	--	0.02	0.06	0.02
19	0.02	0.05	0.02	0.02	0.06	0.02	0.02	0.02	0.02	0.01	0.05	0.02	0.03	0.06	0.04	0.01	0.02	0.01	0.03	0.03	0.03	0.02	0.05	0.03	0.02	0.02	0.02
20	0.03	0.06	0.04	0.03	0.06	0.04	0.01	0.05	0.02	0.01	0.04	0.01	0.02	0.05	0.03	0.01	0.03	0.02	0.02	0.08	0.04	0.02	0.04	0.02	0.03	0.06	0.04
21	0.02	0.03	0.02	0.03	0.07	0.03	0.01	0.03	0.02	0.02	0.05	0.03	0.02	0.06	0.04	0.02	0.07	0.03	0.03	0.04	0.03	0.02	0.02	0.02	0.02	0.03	0.02
22	0.02	0.03	0.02	0.03	0.07	0.04	0.01	0.05	0.02	0.01	0.03	0.02	0.02	0.06	0.03	0.01	0.04	0.01	0.02	0.03	0.02	0.03	0.08	0.03	0.02	0.07	0.04
23	0.02	0.08	0.04	0.03	0.04	0.03	0.01	0.04	0.02	0.01	0.06	0.01	0.02	0.05	0.03	0.02	0.06	0.03	0.02	0.06	0.04	0.02	0.03	0.02	0.02	0.04	0.03
24	0.02	0.07	0.02	0.03	0.06	0.04	0.01	0.01	0.01	0.01	0.06	0.03	0.03	0.06	0.04	0.01	0.02	0.01	0.02	0.04	0.03	0.04	0.07	0.06	0.02	0.02	0.02
25	0.02	0.06	0.04	0.02	0.03	0.03	0.02	0.06	0.03	0.02	0.04	0.01	0.02	0.05	0.03	0.01	0.02	0.02	0.02	0.04	0.02	0.02	0.04	0.03	0.03	0.06	0.04
26	0.02	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.07	0.03	0.02	0.03	0.02	0.01	0.06	0.03	0.04	0.06	0.05	0.01	0.02	0.02	0.02	0.03	0.02
27	0.02	0.02	0.02	0.03	0.06	0.03	--	--	--	0.01	0.02	0.01	0.03	0.06	0.04	0.01	0.03	0.01	0.03	0.06	0.03	0.01	0.02	0.02	0.01	0.06	0.03
28	0.02	0.08	0.03	0.02	0.04	0.02	0.02	0.05	0.02	0.01	0.07	0.02	0.02	0.04	0.03	--	--	--	0.02	0.04	0.02	0.02	0.07	0.04	0.02	0.03	0.02
29	0.02	0.03	0.02	0.02	0.06	0.04	0.01	0.05	0.01	0.01	0.03	0.02	0.02	0.04	0.02	0.02	0.06	0.02	0.03	0.06	0.04	0.02	0.06	0.02	0.02	0.02	0.02
30	0.02	0.07	0.03	0.03	0.03	0.03	0.02	0.04	0.02	0.01	0.01	0.01	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.05	0.03	0.02	0.03	0.02	0.03	0.05	0.04
31	0.02	0.03	0.02	0.02	0.05	0.03	0.01	0.02	0.01	0.02	0.04	0.03	0.02	0.03	0.03	0.02	0.06	0.03	0.02	0.07	0.04	0.02	0.06	0.03	0.02	0.03	0.02
Monthly Min/Max/Avg	0.02	0.10	0.03	0.02	0.10	0.03	0.01	0.09	0.02	0.01	0.09	0.02	0.02	0.09	0.03	0.01	0.09	0.02	0.02	0.08	0.03	0.01	0.08	0.03	0.01	0.09	0.03

NOTES: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

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

December 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	0.02	0.09	0.04	0.01	0.08	0.01	0.00	0.07	0.02	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.09	0.05	0.03	0.09	0.04	0.03	0.09	0.05	0.03	0.08	0.03
2	0.02	0.09	0.04	0.01	0.09	0.01	0.01	0.07	0.03	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.08	0.05	0.04	0.08	0.04	0.04	0.09	0.05	0.03	0.08	0.04
3	0.03	0.09	0.05	0.01	0.09	0.01	0.02	0.08	0.03	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.09	0.05	0.04	0.09	0.05	0.04	0.09	0.05	0.03	0.08	0.03
4	0.03	0.08	0.04	0.01	0.03	0.01	0.01	0.06	0.02	0.03	0.07	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.03	0.06	0.03
5	0.02	0.06	0.03	0.01	0.06	0.01	0.00	0.05	0.02	0.03	0.07	0.03	0.03	0.07	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.03	0.07	0.03
6	0.02	0.07	0.03	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.08	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.02	0.09	0.05	0.03	0.04	0.03
7	0.02	0.07	0.03	0.01	0.07	0.01	0.00	0.05	0.01	0.03	0.05	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.04	0.09	0.05	0.02	0.07	0.03
8	0.02	0.04	0.03	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.07	0.03	0.03	0.08	0.04	0.04	0.05	0.04	0.03	0.08	0.04	0.04	0.08	0.04	0.02	0.07	0.03
9	0.02	0.06	0.03	0.01	0.07	0.01	0.00	0.05	0.02	0.03	0.08	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.02	0.10	0.04	0.02	0.07	0.03
10	0.02	0.07	0.03	0.01	0.07	0.01	0.01	0.06	0.02	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.05	0.04	0.04	0.08	0.04	0.03	0.07	0.03
11	0.02	0.06	0.03	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.08	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.04	0.09	0.05	0.03	0.04	0.03
12	0.02	0.08	0.03	0.01	0.07	0.01	0.01	0.06	0.02	0.03	0.07	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.04	0.08	0.05	0.03	0.07	0.03
13	0.02	0.07	0.03	0.01	0.07	0.01	0.01	0.06	0.01	0.03	0.03	0.03	0.03	0.08	0.03	0.04	0.08	0.05	0.03	0.08	0.04	0.04	0.09	0.05	0.03	0.07	0.03
14	0.02	0.05	0.03	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.07	0.03	0.03	0.06	0.04	0.04	0.04	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.02	0.07	0.03
15	0.02	0.07	0.03	0.01	0.07	0.01	0.00	0.02	0.01	0.03	0.07	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.04	0.04	0.03	0.08	0.04	0.03	0.03	0.03
16	0.02	0.07	0.04	0.01	0.06	0.01	0.01	0.06	0.01	0.03	0.07	0.03	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.04	0.05	0.04	0.03	0.07	0.03
17	0.02	0.03	0.03	0.01	0.06	0.01	0.01	0.06	0.01	0.03	0.05	0.03	0.03	0.04	0.04	0.04	0.08	0.05	0.04	0.08	0.04	0.04	0.08	0.04	0.03	0.07	0.03
18	0.02	0.07	0.03	0.01	0.06	0.01	0.00	0.05	0.01	0.03	0.07	0.03	0.03	0.08	0.04	0.04	0.04	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.03	0.03	0.03
19	0.02	0.07	0.03	0.01	0.01	0.00	0.01	0.05	0.02	0.03	0.07	0.03	0.03	0.08	0.04	0.04	0.08	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.07	0.03
20	0.02	0.08	0.03	0.01	0.06	0.01	0.01	0.07	0.02	0.03	0.04	0.03	0.03	0.08	0.04	0.04	0.08	0.05	0.04	0.08	0.05	0.04	0.08	0.04	0.03	0.08	0.03
21	0.02	0.05	0.03	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.07	0.04	0.04	0.08	0.04	0.04	0.05	0.04	0.03	0.04	0.04	0.04	0.08	0.05	0.03	0.03	0.03
22	0.02	0.08	0.04	0.01	0.08	0.01	0.01	0.04	0.02	0.03	0.07	0.03	0.03	0.05	0.04	0.04	0.08	0.05	0.04	0.08	0.05	0.04	0.09	0.04	0.03	0.07	0.03
23	0.02	0.03	0.03	0.01	0.02	0.01	0.00	0.06	0.02	0.03	0.04	0.03	0.03	0.08	0.04	0.04	0.05	0.04	0.03	0.08	0.04	0.04	0.08	0.05	0.03	0.08	0.03
24	0.02	0.08	0.04	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.08	0.04	0.03	0.04	0.04	0.04	0.09	0.05	0.04	0.05	0.04	0.03	0.09	0.04	0.03	0.06	0.03
25	0.02	0.02	0.02	0.01	0.08	0.01	0.00	0.04	0.01	0.03	0.04	0.03	0.04	0.08	0.05	0.04	0.04	0.04	0.04	0.08	0.05	0.03	0.05	0.04	0.02	0.08	0.03
26	0.02	0.08	0.03	0.01	0.04	0.00	0.00	0.06	0.02	0.03	0.08	0.04	0.03	0.04	0.03	0.04	0.09	0.05	0.03	0.04	0.04	0.03	0.08	0.05	0.03	0.03	0.03
27	0.02	0.08	0.03	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.04	0.03	0.03	0.08	0.04	0.04	0.04	0.04	0.04	0.08	0.04	0.03	0.04	0.04	0.02	0.07	0.03
28	0.02	0.05	0.03	0.01	0.08	0.00	0.00	0.02	0.01	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.08	0.05	0.03	0.04	0.04	0.04	0.08	0.05	0.03	0.03	0.03
29	0.02	0.07	0.03	0.01	0.05	0.01	0.01	0.05	0.02	0.03	0.07	0.03	0.04	0.04	0.04	0.04	0.08	0.05	0.04	0.08	0.04	0.03	0.04	0.04	0.03	0.07	0.03
30	0.02	0.03	0.02	0.01	0.07	0.01	0.00	0.05	0.01	0.03	0.04	0.03	--	--	--	0.04	0.04	0.04	0.04	0.08	0.04	0.04	0.08	0.05	0.03	0.03	0.03
31	0.02	0.07	0.03	0.01	0.05	0.01	0.00	0.01	0.01	0.03	0.07	0.04	--	--	--	0.04	0.08	0.05	0.04	0.05	0.04	0.03	0.08	0.04	0.03	0.07	0.03
Monthly Min/Max/Avg	0.02	0.09	0.03	0.01	0.09	0.01	0.00	0.08	0.01	0.03	0.08	0.03	0.03	0.08	0.04	0.04	0.09	0.04	0.03	0.09	0.04	0.02	0.10	0.04	0.02	0.08	0.03

NOTES: ' -- ' indicates filter offline

1.2.11 Combined Filter Effluent Water Quality

December 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	9	17	12	0.05	0.06	0.06	3	9	6	0.02	0.03	0.03
2	6	12	8	0.05	0.07	0.06	5	13	8	0.02	0.03	0.03
3	1	13	8	0.06	0.07	0.06	3	17	6	0.02	0.03	0.03
4	1	12	8	0.05	0.06	0.14	2	9	3	0.02	0.03	0.02
5	4	8	6	0.05	0.07	0.06	2	7	3	0.02	0.03	0.02
6	4	7	5	0.05	0.06	0.05	2	5	3	0.02	0.03	0.02
7	3	7	4	0.05	0.05	0.05	1	4	2	0.02	0.03	0.02
8	1	12	3	0.04	0.06	0.05	1	5	2	0.02	0.03	0.02
9	1	8	4	0.05	0.06	0.05	1	4	2	0.02	0.03	0.02
10	--	--	--	--	--	--	2	5	3	0.02	0.03	0.02
11	1	19	5	0.05	0.08	0.07	2	5	4	0.02	0.03	0.02
12	2	16	9	0.05	0.05	0.05	3	6	4	0.02	0.03	0.02
13	3	14	4	0.05	0.06	0.05	3	7	4	0.02	0.03	0.02
14	2	14	4	0.05	0.05	0.05	3	5	4	0.02	0.03	0.02
15	3	13	4	0.05	0.05	0.05	3	6	4	0.02	0.03	0.02
16	2	5	3	0.05	0.05	0.05	3	6	5	0.02	0.03	0.02
17	2	6	3	0.05	0.05	0.05	4	8	5	0.02	0.03	0.02
18	3	10	5	0.05	0.05	0.05	4	9	6	0.02	0.03	0.02
19	3	8	4	0.05	0.05	0.05	5	8	6	0.02	0.03	0.02
20	3	8	4	0.05	0.06	0.05	5	8	6	0.02	0.03	0.02
21	3	6	4	0.05	0.05	0.05	5	8	6	0.02	0.03	0.03
22	3	7	4	0.05	0.07	0.05	5	8	6	0.02	0.03	0.02
23	3	8	13	0.05	0.06	0.05	5	8	6	0.02	0.03	0.03
24	3	12	4	0.05	0.06	0.05	4	33	5	0.02	0.03	0.02
25	3	8	4	0.05	0.06	0.05	4	8	5	0.02	0.03	0.02
26	2	9	4	0.05	0.05	0.05	4	7	5	0.02	0.03	0.02
27	2	20	4	0.05	0.06	0.05	4	7	5	0.02	0.03	0.02
28	3	10	4	0.05	0.05	0.05	4	7	5	0.02	0.03	0.02
29	2	8	6	0.05	0.05	0.05	4	8	5	0.02	0.03	0.02
30	2	5	3	0.05	0.05	0.05	4	8	5	0.02	0.03	0.02
31	2	5	3	0.05	0.05	0.05	4	8	5	0.02	0.03	0.02
Monthly Min/Max/Avg	1	20	5	0.04	0.08	0.05	1	33	5	0.02	0.03	0.02

NOTES: ' -- ' indicates plant offline

1.2.12 Rossdale UV Disinfection - Filters 1 - 3

December 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	35.1	57.0	45.5	12.9	27.0	8.9	35.3	43.7	38.0	16.5	26.9	20.3	35.2	53.1	39.1	11.4	22.2	18.3	94.1	94.8	94.5
2	33.7	36.0	35.6	18.8	26.2	23.0	39.8	46.4	42.5	13.0	17.3	8.6	34.9	58.5	38.4	10.3	29.8	14.5	92.6	94.1	93.1
3	35.0	43.2	36.7	12.6	19.4	11.8	34.9	38.9	35.5	16.0	28.1	15.1	34.6	52.8	35.6	10.6	26.7	13.9	91.7	92.7	92.1
4	34.0	36.0	35.6	20.3	25.2	17.8	35.0	36.1	35.7	18.1	23.5	15.8	--	--	--	--	--	--	91.9	92.7	92.2
5	34.9	44.0	36.3	14.4	22.7	16.0	35.2	37.6	35.8	21.4	24.7	7.9	34.9	36.3	35.6	20.9	30.9	21.1	92.6	94.7	93.1
6	35.1	43.3	37.8	18.8	25.5	22.4	35.1	47.6	39.6	17.8	25.6	22.0	35.2	44.5	39.0	17.2	21.5	4.5	94.6	95.2	94.9
7	42.8	57.1	48.6	15.2	19.4	12.7	46.9	57.4	51.9	14.9	18.1	5.2	35.4	45.6	39.6	18.8	24.7	21.4	94.7	95.9	95.6
8	--	--	--	--	--	--	35.3	48.0	36.6	20.0	31.1	14.0	39.6	47.9	51.6	20.2	22.0	16.8	95.0	96.1	95.9
9	34.9	47.3	38.1	18.8	26.8	12.9	35.3	48.7	39.2	19.1	29.1	20.6	35.1	36.9	35.8	24.2	26.9	7.6	95.0	95.9	95.7
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	35.2	45.8	39.5	19.8	29.4	18.5	37.0	42.1	39.4	23.9	27.8	6.3	34.4	40.7	36.9	21.6	29.5	18.9	95.1	96.7	96.0
12	35.6	62.0	48.8	13.3	28.4	12.5	36.7	51.0	43.0	19.4	27.9	23.9	38.9	64.4	49.6	13.5	22.2	16.8	95.1	96.2	96.0
13	35.4	43.4	39.2	19.7	28.1	24.3	50.4	75.9	65.1	11.5	19.5	13.9	35.1	42.5	37.9	20.8	26.5	19.2	94.0	96.1	95.8
14	42.1	67.7	55.0	14.4	20.0	15.8	50.1	56.6	52.5	23.8	26.0	0.3	37.8	95.1	51.5	12.3	21.7	17.5	94.0	97.6	96.1
15	39.1	45.4	42.1	21.0	22.7	11.5	35.3	51.7	40.9	19.4	31.6	25.5	42.0	44.3	43.0	20.5	22.2	5.7	95.1	97.6	95.9
16	40.4	50.6	45.7	17.8	24.1	20.9	50.6	58.4	54.1	11.9	19.4	16.1	36.8	47.2	42.2	19.2	24.3	21.5	94.9	96.3	96.0
17	35.2	43.0	39.8	14.1	31.0	11.5	36.4	47.7	40.0	21.4	28.4	21.8	39.6	55.0	48.7	12.4	20.9	10.6	94.9	96.1	95.8
18	35.6	52.6	42.2	17.7	25.9	22.6	41.9	67.8	52.8	14.2	22.9	18.9	39.7	46.2	41.7	19.1	22.7	6.7	95.5	96.1	95.9
19	51.9	65.2	56.0	12.3	18.0	8.5	47.6	76.5	68.0	12.2	20.5	2.9	36.6	47.5	43.7	18.3	22.5	19.9	95.1	96.4	95.9
20	35.3	46.1	37.6	18.6	27.3	14.4	35.5	49.1	41.7	19.2	30.7	22.7	35.1	52.9	42.1	13.4	26.4	15.4	94.2	96.0	95.3
21	36.6	56.4	43.6	17.1	25.0	20.7	36.9	53.7	48.8	16.8	28.5	13.5	35.3	50.9	40.7	17.8	24.0	20.8	95.6	96.6	95.8
22	53.8	65.0	57.4	10.3	17.1	10.6	33.7	42.8	36.7	23.3	28.8	26.8	34.4	57.2	45.1	12.5	30.1	16.5	94.8	96.6	95.7
23	35.0	44.5	35.8	22.4	29.0	25.0	42.6	56.4	48.1	16.3	23.4	9.0	34.9	42.2	37.1	18.4	28.3	22.8	94.3	96.5	95.5
24	35.6	59.8	46.3	13.6	24.4	18.9	35.2	36.7	35.7	24.7	31.7	18.4	40.2	61.8	47.2	12.1	19.5	7.6	94.3	95.9	95.3
25	35.3	43.6	38.8	12.7	30.4	8.2	35.5	43.8	39.3	16.8	26.4	21.5	33.9	44.0	37.9	22.3	30.7	23.6	95.1	96.8	96.3
26	35.2	49.4	40.2	19.7	30.2	25.2	39.1	56.6	47.6	13.7	17.0	8.0	40.6	52.3	47.2	9.5	22.9	16.4	96.2	96.4	96.3
27	49.0	70.2	58.7	10.5	19.8	11.0	35.3	44.4	39.4	24.4	30.7	23.7	--	--	--	--	--	--	96.2	96.4	96.3
28	35.2	38.7	35.8	25.6	32.1	18.9	41.3	66.3	54.4	14.7	25.4	19.0	34.5	41.7	36.6	22.0	31.4	23.9	95.9	96.6	96.3
29	38.4	61.9	48.0	16.0	25.7	20.3	36.8	80.9	45.2	12.1	28.2	11.7	40.7	67.7	49.1	12.8	22.4	11.8	95.9	96.6	96.1
30	35.3	65.0	40.9	11.9	30.9	21.1	40.0	50.9	44.2	21.4	27.2	24.1	35.1	45.8	38.7	20.9	28.6	25.0	96.2	96.8	96.4
31	37.5	60.8	44.9	16.0	28.7	21.9	43.7	63.6	54.4	15.3	24.2	11.1	40.7	74.2	51.1	12.0	24.6	17.1	95.5	96.8	96.1
Monthly Total						487.9						468.8						455.5			
Monthly Min/Max/ Avg	33.7	70.2	43.1	10.3	32.1		33.7	80.9	44.9	11.5	31.7		33.9	95.1	42.2	9.5	31.4		91.7	97.6	92.3

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

December 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	34.9	54.6	40.7	13.1	29.0	20.7	35.1	37.1	35.6	19.7	30.8	14.0	37.8	85.1	46.1	18.4	20.9	16.0	94.1	94.8	94.5
2	34.5	64.7	37.2	10.4	25.9	20.7	32.2	46.5	38.3	11.2	20.7	14.2	34.9	36.0	35.6	20.1	29.8	24.2	92.6	94.1	93.1
3	34.0	46.0	36.2	13.0	25.0	16.5	31.3	38.5	35.5	13.8	26.0	19.0	35.1	46.6	38.0	12.0	30.2	12.8	91.7	92.7	92.1
4	35.0	36.7	35.6	19.0	27.7	20.1	--	--	--	--	--	--	35.3	35.9	35.6	20.7	30.3	20.9	91.9	92.7	92.2
5	34.9	53.9	37.5	10.6	26.2	17.8	35.0	37.4	35.7	20.3	23.4	17.1	35.3	49.5	38.8	14.0	21.0	12.1	92.6	94.7	93.1
6	37.7	57.7	43.5	13.9	23.3	19.9	36.0	41.1	40.2	12.3	22.4	16.1	34.5	44.7	38.4	19.2	32.8	24.4	94.6	95.2	94.9
7	39.0	59.7	44.9	14.6	25.6	20.2	36.7	51.6	44.3	16.8	22.6	19.7	43.2	56.4	49.5	15.0	19.7	11.5	94.7	95.9	95.6
8	35.3	57.7	47.1	14.6	30.5	20.5	36.5	56.5	47.5	15.1	22.9	3.9	34.6	42.5	36.4	21.4	30.5	4.1	95.0	96.1	95.9
9	35.2	55.1	41.5	12.0	27.8	20.2	35.4	42.2	38.2	21.7	25.2	12.6	35.4	46.7	38.4	20.5	29.0	20.3	95.0	95.9	95.7
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	36.7	52.7	41.4	21.2	29.7	13.7	37.7	38.8	38.4	21.5	22.8	0.4	35.4	41.3	38.2	23.7	30.5	20.5	95.1	96.7	96.0
12	43.1	64.1	50.5	16.1	25.0	20.9	35.4	53.2	43.0	17.3	26.5	22.3	40.1	64.5	51.6	15.0	24.7	19.8	95.1	96.2	96.0
13	36.2	83.2	65.1	12.0	26.0	7.6	51.8	78.7	61.6	10.9	17.6	6.9	35.5	69.0	46.5	13.7	26.9	15.4	94.0	96.1	95.8
14	36.8	69.8	45.2	19.2	28.4	24.0	35.0	48.8	40.0	23.4	28.9	9.5	35.6	84.8	49.5	15.2	26.1	21.5	94.0	97.6	96.1
15	45.7	79.7	65.2	10.7	19.8	12.1	39.2	67.8	48.3	13.3	25.5	18.1	38.7	87.7	67.1	10.8	25.5	10.3	95.1	97.6	95.9
16	37.6	39.4	38.5	24.8	26.2	1.9	35.5	44.1	40.1	22.0	25.7	9.5	37.7	48.4	43.0	19.5	27.9	24.0	94.9	96.3	96.0
17	37.6	52.9	44.8	18.5	25.6	22.9	37.0	57.9	45.9	14.8	23.7	20.2	46.9	59.0	48.4	11.7	19.5	12.7	94.9	96.1	95.8
18	44.9	65.8	57.1	15.4	22.6	14.5	55.9	76.4	59.6	11.6	14.9	2.6	35.5	48.5	38.6	20.5	30.2	22.4	95.5	96.1	95.9
19	40.5	51.5	47.0	19.0	22.7	20.7	37.5	49.5	44.0	18.7	25.3	12.9	48.1	66.9	56.4	14.3	20.6	17.1	95.1	96.4	95.9
20	46.6	61.0	51.8	13.0	20.3	10.2	40.8	63.5	51.0	14.9	23.0	18.4	48.0	73.0	69.5	11.5	14.3	2.2	94.2	96.0	95.3
21	38.8	46.1	42.3	20.1	24.2	16.7	39.8	48.0	47.3	13.4	23.4	10.0	35.6	46.1	39.5	22.1	26.3	24.1	95.6	96.6	95.8
22	42.3	63.5	47.3	15.2	23.2	19.9	38.3	63.9	45.9	15.6	25.6	21.0	41.5	73.6	50.9	10.6	23.1	17.7	94.8	96.6	95.7
23	35.5	78.3	68.5	12.0	27.1	12.8	62.4	76.1	70.7	12.5	15.7	3.0	34.9	38.0	35.7	25.6	33.8	22.3	94.3	96.5	95.5
24	34.9	44.9	37.7	20.6	30.2	26.4	34.9	39.8	36.0	23.7	29.5	7.9	35.5	65.9	48.1	13.0	26.6	19.5	94.3	95.9	95.3
25	36.7	45.2	40.5	11.6	20.9	12.3	36.7	48.8	42.2	15.9	26.2	20.9	44.7	51.8	47.3	11.7	13.0	1.0	95.1	96.8	96.3
26	35.2	43.0	37.1	26.0	31.6	15.1	43.7	55.9	46.4	13.3	16.2	2.8	35.1	45.6	37.7	23.1	35.2	26.8	96.2	96.4	96.3
27	38.6	76.1	52.3	12.6	27.6	21.0	36.4	45.5	41.2	23.4	29.9	16.0	45.3	84.3	61.0	11.1	23.2	16.5	96.2	96.4	96.3
28	35.3	84.1	66.5	12.4	31.2	4.8	44.3	70.9	57.9	14.3	24.6	18.5	--	--	--	--	--	--	95.9	96.6	96.3
29	35.7	53.0	42.3	20.7	29.6	24.9	69.8	97.4	78.2	10.4	14.3	2.6	35.4	45.1	37.1	24.4	34.1	23.9	95.9	96.6	96.1
30	40.5	66.0	59.8	14.2	20.7	6.5	37.9	53.0	43.9	21.8	28.5	20.1	44.6	67.0	55.0	14.9	24.5	14.1	96.2	96.8	96.4
31	35.0	59.7	39.4	17.7	31.9	15.8	51.5	64.6	57.9	13.0	22.1	12.8	35.4	40.6	36.6	26.6	30.0	10.9	95.5	96.8	96.1
Monthly Total						501.2						373.0						489.0			
Monthly Min/Max/ Avg	34.0	84.1	46.8	10.4	31.9		31.3	97.4	46.7	10.4	30.8		34.5	87.7	45.3	10.6	35.2		91.7	97.6	92.3

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

December 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	35.3	53.1	41.4	11.0	21.9	16.6	35.2	54.5	41.1	13.3	30.8	19.4	34.9	79.7	36.0	16.6	25.2	20.1	94.1	94.8	94.5
2	35.3	56.4	36.4	10.2	32.5	5.2	35.1	36.1	35.6	19.0	27.5	23.3	34.9	36.1	35.6	15.2	22.4	19.0	92.6	94.1	93.1
3	35.1	37.0	35.6	22.0	32.2	20.3	34.9	36.2	35.6	17.4	29.6	13.9	34.1	37.7	35.6	13.3	29.0	21.4	91.7	92.7	92.1
4	35.2	35.9	35.6	25.7	29.9	3.8	35.0	36.2	35.6	21.7	26.2	16.7	33.5	36.2	35.6	20.1	28.4	20.2	91.9	92.7	92.2
5	35.2	36.3	35.7	19.0	29.8	24.6	35.1	44.9	37.9	17.4	22.6	19.6	35.0	36.2	35.6	19.4	25.5	21.5	92.6	94.7	93.1
6	33.2	50.1	37.7	14.5	23.0	18.5	35.1	39.1	38.6	10.1	25.6	14.9	34.9	45.6	37.4	15.1	25.8	19.4	94.6	95.2	94.9
7	35.2	36.6	35.7	24.3	29.4	9.5	39.6	48.1	42.4	19.5	24.3	22.1	35.1	39.6	36.1	20.3	25.3	22.9	94.7	95.9	95.6
8	34.9	36.2	35.7	23.3	29.3	15.2	43.2	61.9	51.0	14.2	22.1	18.9	35.6	50.9	41.9	14.7	23.0	19.6	95.0	96.1	95.9
9	35.1	38.6	35.8	21.6	30.1	20.3	35.3	61.0	38.9	13.7	30.6	13.6	35.0	59.6	45.4	12.8	28.9	16.1	95.0	95.9	95.7
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	35.3	54.0	35.9	14.8	29.2	18.9	35.2	42.4	39.1	23.1	29.4	19.5	--	--	--	--	--	--	95.1	96.7	96.0
12	34.7	42.1	35.9	20.6	28.9	6.7	40.4	61.1	49.3	15.8	25.1	20.6	35.2	41.5	35.8	26.1	33.8	16.4	95.1	96.2	96.0
13	34.9	38.2	35.8	20.7	30.9	26.2	35.3	78.9	53.2	12.0	28.0	17.3	35.2	48.9	42.1	17.9	29.9	23.9	94.0	96.1	95.8
14	36.8	57.3	47.3	14.7	20.7	14.6	35.2	64.1	42.2	20.5	29.4	25.0	40.9	82.1	54.4	12.0	29.4	13.7	94.0	97.6	96.1
15	35.3	37.7	35.7	24.2	28.6	16.1	40.8	75.7	57.7	12.8	25.1	13.2	35.1	48.3	40.0	20.7	32.0	26.0	95.1	97.6	95.9
16	35.7	46.3	40.0	18.8	24.6	21.7	35.6	43.2	39.8	23.5	29.2	25.3	47.8	60.0	54.6	12.3	20.9	13.0	94.9	96.3	96.0
17	35.4	54.4	44.8	15.2	25.0	11.1	38.2	55.1	45.8	17.2	23.9	20.3	35.3	41.0	38.4	24.5	28.7	14.5	94.9	96.1	95.8
18	34.2	43.2	36.1	19.5	28.7	25.2	--	--	--	--	--	--	35.8	49.9	42.2	19.5	27.0	23.4	95.5	96.1	95.9
19	40.8	50.1	45.7	16.7	19.9	18.0	35.4	40.6	38.7	23.8	28.6	22.0	49.1	103.2	52.6	9.3	20.0	6.6	95.1	96.4	95.9
20	34.0	53.0	42.6	14.8	33.2	14.9	35.4	53.0	43.6	16.7	26.5	21.1	35.1	38.6	36.2	22.6	33.5	18.1	94.2	96.0	95.3
21	34.1	41.6	36.1	21.2	27.6	24.2	50.0	60.0	55.6	11.9	18.2	5.3	35.5	52.4	41.7	19.4	27.2	22.9	95.6	96.6	95.8
22	36.9	59.7	43.5	13.7	22.1	18.4	35.2	45.7	35.9	21.0	33.6	20.8	35.3	54.7	43.2	18.5	30.3	2.6	94.8	96.6	95.7
23	34.8	60.4	36.8	13.5	31.7	15.4	35.4	63.8	40.9	12.5	29.0	20.2	34.7	36.7	35.7	25.0	31.2	27.5	94.3	96.5	95.5
24	35.2	41.3	36.5	18.6	31.3	25.3	35.3	35.9	35.6	32.9	34.6	1.7	35.2	56.6	43.1	15.4	26.7	19.0	94.3	95.9	95.3
25	40.7	55.4	48.5	13.8	18.9	8.9	35.2	45.0	38.3	24.3	33.8	29.4	33.7	41.9	36.0	26.1	33.4	16.6	95.1	96.8	96.3
26	35.3	36.7	35.8	24.5	28.8	3.3	42.0	58.5	52.1	14.6	24.8	19.8	35.2	53.4	41.6	19.1	31.1	25.7	96.2	96.4	96.3
27	34.5	37.1	35.8	24.1	30.4	27.3	66.1	81.1	71.6	12.3	14.9	5.9	35.2	55.5	41.1	18.3	35.6	10.8	96.2	96.4	96.3
28	35.7	46.3	40.6	18.2	25.6	11.4	34.9	37.4	35.8	27.7	30.4	14.7	35.0	46.5	38.5	22.1	34.8	28.2	95.9	96.6	96.3
29	35.2	36.1	35.7	26.8	29.6	14.9	37.1	51.2	42.3	20.9	27.8	24.1	45.9	60.2	53.3	16.7	22.3	9.5	95.9	96.6	96.1
30	35.3	45.3	38.2	20.9	27.2	24.1	50.5	59.0	55.3	17.0	20.9	3.9	35.2	51.4	38.2	21.0	33.4	10.8	96.2	96.8	96.4
31	35.0	55.7	38.9	16.2	24.3	8.5	35.1	48.8	37.0	21.3	35.9	29.0	35.0	51.1	39.1	20.4	33.2	27.4	95.5	96.8	96.1
Monthly Total						489.1						521.2						536.7			
Monthly Min/Max/ Avg	33.2	60.4	38.5	10.2	33.2		34.9	81.1	43.7	10.1	35.9		33.5	103.2	40.9	9.3	35.6		91.7	97.6	92.3

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

December 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	46.7	82.1	62.2	72.6	89.5	82.0	54.3	80.8	64.1	70.3	86.7	78.9	46.4	77.0	62.2	73.7	90.0	81.7	--	--	--	--	--	--	92.9	95.1	94.2
2	52.3	65.3	57.4	72.0	101.7	87.4	45.5	72.6	50.0	67.6	96.9	84.1	56.1	69.2	61.2	70.2	101.1	87.1	--	--	--	--	--	--	92.5	93.1	92.9
3	51.0	80.0	55.2	53.6	106.5	92.4	45.6	102.7	62.3	49.4	103.8	89.0	55.6	86.0	60.3	48.9	97.2	85.8	--	--	--	--	--	--	92.5	93.3	92.9
4	46.1	87.1	75.4	55.7	102.8	78.9	49.3	75.7	66.7	53.8	98.9	75.6	49.7	91.8	79.3	51.4	93.1	72.5	--	--	--	--	--	--	93.3	94.8	93.9
5	45.9	83.8	65.7	68.4	104.4	91.5	67.0	85.2	72.1	67.2	100.5	87.8	46.4	53.3	49.2	65.2	95.1	84.5	--	--	--	--	--	--	94.8	95.5	95.2
6	50.9	91.0	69.1	83.6	106.9	94.6	69.1	79.6	74.6	80.6	103.0	91.1	47.4	55.6	51.2	78.8	96.7	87.6	--	--	--	--	--	--	95.5	95.9	95.7
7	50.5	60.8	54.6	70.3	99.1	85.9	51.9	88.9	76.2	67.7	95.3	82.5	51.0	62.3	55.6	64.6	90.6	79.4	--	--	--	--	--	--	95.1	96.0	95.7
8	53.7	63.2	58.6	69.0	91.3	80.5	46.6	54.7	51.6	65.7	89.8	77.1	53.7	63.6	59.1	64.2	83.8	74.3	--	--	--	--	--	--	95.1	96.1	95.9
9	47.0	96.8	54.6	77.6	95.6	88.2	47.1	79.1	60.4	75.0	93.4	84.9	48.1	56.9	52.5	72.6	95.4	85.9	--	--	--	--	--	--	95.9	96.2	96.0
10	45.8	58.9	50.1	70.1	101.6	92.8	69.4	78.4	73.0	67.4	99.4	89.6	48.3	57.0	51.7	72.2	100.5	93.2	--	--	--	--	--	--	95.4	96.2	95.7
11	49.8	54.6	52.1	80.5	101.0	95.0	69.1	80.3	71.6	79.6	98.9	91.7	48.3	53.1	50.5	80.8	100.3	95.6	--	--	--	--	--	--	96.1	96.3	96.2
12	48.3	54.8	52.6	81.2	105.1	91.5	67.0	77.5	72.9	78.0	100.3	88.1	47.0	53.0	51.1	80.9	103.4	91.8	--	--	--	--	--	--	96.1	96.3	96.2
13	51.4	64.5	56.4	68.3	96.1	83.2	69.9	87.9	77.5	65.9	93.2	80.2	49.1	63.1	55.1	68.9	96.4	83.6	--	--	--	--	--	--	95.6	96.2	95.7
14	57.4	65.3	60.5	67.8	81.6	76.3	80.0	89.9	83.4	64.5	79.8	73.4	57.0	63.0	59.1	69.1	82.3	76.5	--	--	--	--	--	--	95.6	96.2	96.1
15	54.2	62.3	58.7	68.6	87.0	78.0	75.7	89.1	82.0	66.3	86.0	75.1	53.4	61.2	57.7	70.3	88.0	78.1	--	--	--	--	--	--	96.0	96.2	96.1
16	51.6	58.4	54.9	74.7	91.1	83.9	73.0	80.3	75.6	71.6	87.8	81.1	52.3	57.5	53.8	75.9	91.4	84.5	--	--	--	--	--	--	95.1	96.1	95.9
17	52.4	60.1	55.1	73.8	91.9	82.8	73.8	83.3	76.1	71.3	88.4	79.7	52.6	57.5	54.5	74.2	90.7	83.1	--	--	--	--	--	--	95.1	96.4	96.0
18	52.2	127.7	73.6	75.5	89.9	83.8	70.6	110.7	77.9	72.7	87.6	80.9	50.9	139.6	58.1	76.8	89.2	84.0	--	--	--	--	--	--	95.9	96.0	96.0
19	82.4	90.4	86.0	72.7	87.9	81.3	76.8	83.3	79.3	70.5	84.9	78.5	56.9	63.1	59.3	72.8	86.5	81.5	--	--	--	--	--	--	95.5	96.0	95.8
20	82.5	89.7	85.5	71.4	86.9	80.8	75.7	83.6	78.7	69.6	84.5	78.1	56.9	62.1	58.5	72.3	85.5	81.2	--	--	--	--	--	--	95.6	96.2	95.8
21	81.2	88.9	84.1	70.6	86.3	80.4	75.3	83.5	78.4	67.6	82.9	77.6	56.4	62.1	58.2	71.4	85.9	80.8	--	--	--	--	--	--	95.5	96.0	95.7
22	76.7	85.6	81.0	70.2	86.6	80.5	71.2	79.1	74.7	67.9	83.4	77.6	53.5	59.2	56.2	71.3	85.7	80.6	--	--	--	--	--	--	95.4	95.7	95.5
23	78.2	90.4	83.1	68.3	84.8	78.4	72.8	81.5	76.7	65.6	81.3	75.6	54.7	63.3	57.8	69.1	83.6	78.4	--	--	--	--	--	--	95.0	95.8	95.3
24	48.0	87.8	53.9	68.7	83.4	77.1	80.1	87.1	83.4	66.3	81.5	74.3	60.0	67.7	63.2	68.3	82.7	77.1	--	--	--	--	--	--	95.6	95.9	95.8
25	48.2	55.6	51.3	67.6	85.7	77.8	50.2	89.9	72.3	66.3	83.4	75.2	61.3	68.8	64.4	69.3	84.0	78.0	--	--	--	--	--	--	95.4	96.0	95.8
26	51.3	58.6	55.1	65.7	84.2	75.8	50.4	57.5	53.5	63.3	81.4	72.9	65.0	72.0	68.7	66.2	82.7	75.9	--	--	--	--	--	--	96.0	96.6	96.3
27	51.2	57.7	55.1	65.8	80.9	73.9	50.6	58.0	54.5	62.4	77.5	71.0	64.9	72.6	68.9	66.4	79.2	74.1	--	--	--	--	--	--	95.8	96.3	96.2
28	51.5	55.6	53.1	68.8	83.0	76.3	50.0	55.7	51.8	64.9	79.0	73.5	64.5	69.0	66.8	67.8	81.5	76.3	--	--	--	--	--	--	95.8	96.2	96.0
29	52.8	59.0	54.6	62.2	80.1	74.7	52.2	57.2	53.8	61.6	80.3	72.0	66.3	73.0	68.7	63.1	80.4	74.9	--	--	--	--	--	--	95.9	96.2	96.2
30	50.8	56.4	53.0	67.6	82.2	77.0	48.7	54.9	51.8	66.2	80.4	74.3	64.5	68.7	66.1	68.9	82.2	77.3	--	--	--	--	--	--	95.4	96.2	96.0
31	50.4	55.4	52.1	66.6	83.0	76.0	49.0	54.9	51.0	64.6	79.8	73.4	63.6	70.3	66.1	66.4	81.8	76.2	--	--	--	--	--	--	95.8	96.1	96.0
Monthly Total						2,558.7						2,464.7						2,521.4						0.0			
Monthly Min/Max/ Avg	45.8	127.7	61.8	53.6	106.9		45.5	110.7	68.6	49.4	103.8		46.4	139.6	59.5	48.9	103.4		--	--	--	--	--		92.5	96.6	95.6

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

December 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	7.5	8.3	7.9	12	14	13	6.5	6.5	6.5	6.6	6.7	6.6	5.4	7.2	6.5	6.5	6.5	6.5
2	7.6	8.4	7.9	12	13	13	6.5	6.5	6.5	6.6	6.7	6.7	5.9	8.6	7.1	6.5	6.5	6.5
3	7.5	8.1	7.6	12	14	13	6.5	6.5	6.5	6.6	6.8	6.7	5.3	8.9	7.1	6.5	6.5	6.5
4	7.2	7.7	7.4	12	14	13	6.5	6.5	6.5	6.7	6.8	6.7	6.8	10	7.8	6.5	6.5	6.5
5	7.2	7.5	7.4	12	14	14	6.5	6.5	6.5	6.7	6.7	6.7	5.8	8.1	7.0	6.5	6.5	6.5
6	7.3	7.6	7.4	13	15	14	6.5	6.5	6.5	6.7	6.8	6.7	5.8	8.7	7.2	6.5	6.5	6.5
7	7.4	7.7	7.6	14	15	15	6.5	6.5	6.5	6.7	6.7	6.7	6.3	7.6	6.9	6.5	6.5	6.5
8	7.5	9.1	8.1	12	16	14	6.5	6.5	6.5	6.7	6.7	6.7	5.8	8.1	7.2	6.5	6.5	6.5
9	7.5	7.7	7.5	12	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.1	7.5	6.9	6.5	6.5	6.5
10	--	--	--	--	--	--	--	--	--	6.3	6.7	6.7	6.3	7.9	7.1	6.1	6.5	6.5
11	7.4	7.8	7.6	12	14	13	6.5	6.5	6.5	6.6	6.7	6.7	5.9	7.5	6.8	6.5	6.5	6.5
12	7.5	7.6	7.5	13	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.5	8.3	7.2	6.5	6.5	6.5
13	7.5	7.6	7.6	13	14	13	6.5	6.5	6.5	6.6	6.7	6.7	6.0	8.1	7.1	6.5	6.5	6.5
14	7.5	7.7	7.6	13	14	13	6.4	6.5	6.5	6.7	6.7	6.7	6.6	8.6	7.8	6.5	6.5	6.5
15	7.6	7.7	7.6	12	15	13	6.5	6.5	6.5	6.7	6.7	6.7	7.1	8.9	8.0	6.5	6.5	6.5
16	7.5	7.9	7.7	13	15	14	6.5	6.5	6.5	6.6	6.7	6.7	6.5	8.5	7.6	6.5	6.5	6.5
17	7.5	7.9	7.7	12	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.3	9.2	8.0	6.5	6.5	6.5
18	7.4	7.8	7.7	13	15	13	6.4	6.5	6.5	6.7	6.7	6.7	7.6	8.8	8.1	6.5	6.5	6.5
19	7.7	7.9	7.8	13	15	14	6.5	6.5	6.5	6.6	6.7	6.7	6.5	8.9	7.8	6.5	6.5	6.5
20	7.3	8.0	7.7	12	15	13	6.5	6.5	6.5	6.7	6.7	6.7	6.6	8.5	7.7	6.5	6.5	6.5
21	7.5	7.9	7.7	13	15	14	6.5	6.5	6.5	6.7	6.7	6.7	7.7	8.7	8.1	6.5	6.5	6.5
22	7.5	7.6	7.6	12	13	13	6.5	6.5	6.5	6.6	6.7	6.7	6.5	9.0	8.0	6.5	6.5	6.5
23	7.5	7.9	7.6	12	13	13	6.5	6.5	6.5	6.7	6.7	6.7	7.3	8.8	8.1	6.5	6.5	6.5
24	7.5	8.3	7.9	11	13	12	6.5	6.5	6.5	6.6	6.7	6.7	6.6	8.6	7.6	6.5	6.5	6.5
25	7.5	8.3	7.7	12	13	12	6.5	6.5	6.5	6.7	6.7	6.7	7.3	8.3	7.8	6.5	6.5	6.5
26	7.5	8.3	7.9	12	13	12	6.5	6.5	6.5	6.7	6.7	6.7	6.3	8.3	7.5	6.5	6.5	6.5
27	7.6	8.4	8.0	12	13	12	6.5	6.5	6.5	6.7	6.7	6.7	6.9	8.4	7.5	6.5	6.5	6.5
28	7.7	8.3	8.0	12	12	12	6.5	6.5	6.5	6.7	6.7	6.7	6.3	8.8	7.5	6.5	6.5	6.5
29	7.6	8.1	7.7	12	13	13	6.5	6.5	6.5	6.7	6.7	6.7	6.9	8.2	7.6	6.5	6.5	6.5
30	7.5	7.7	7.6	12	14	13	6.5	6.5	6.5	6.7	6.7	6.7	6.2	7.8	7.2	6.5	6.5	6.5
31	7.5	7.7	7.6	12	13	13	6.5	6.5	6.5	6.7	6.7	6.7	7.0	8.0	7.4	6.5	6.5	6.5
Monthly Min/Max/Avg	7.2	9.1	7.7	11	16	13	6.4	6.5	6.5	6.3	6.8	6.7	5.3	10	7.5	6.1	6.5	6.5

NOTES: ' -- ' indicates plant offline

1.2.17 Liquid Alum Chemical Consumption

December 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	8.64	--	1,978	1,978	4,987
2	--	6.01	8.87	--	1,981	1,981	5,469
3	--	6.02	9.04	--	1,858	1,858	5,876
4	1.79	5.99	8.97	43	1,668	1,710	4,832
5	5.99	6.11	6.79	676	1,476	2,152	4,204
6	6.00	6.05	5.88	742	1,372	2,114	3,766
7	6.00	6.02	6.06	738	1,145	1,883	3,479
8	5.99	5.85	5.79	907	556	1,463	3,128
9	6.00	6.01	5.38	811	1,030	1,841	3,261
10	--	--	5.05	--	--	--	3,270
11	6.05	5.94	5.05	903	832	1,735	3,338
12	5.55	5.56	5.06	1,025	923	1,948	3,201
13	5.00	5.00	5.06	864	824	1,689	2,931
14	5.00	5.01	5.06	763	765	1,528	2,715
15	5.00	4.99	5.06	720	779	1,499	2,755
16	5.00	5.00	5.06	824	824	1,648	2,926
17	5.00	4.97	5.06	1,102	461	1,563	2,928
18	5.00	--	5.06	1,443	--	1,443	2,928
19	5.00	--	5.06	1,372	--	1,372	2,862
20	5.01	5.73	5.06	1,160	421	1,582	2,828
21	5.01	5.00	5.06	803	877	1,680	2,824
22	5.00	5.01	5.06	773	878	1,651	2,822
23	5.00	5.00	5.06	717	876	1,593	2,771
24	5.00	4.99	5.06	670	875	1,545	2,721
25	5.00	5.00	5.06	670	877	1,547	2,719
26	5.00	5.00	5.06	660	866	1,526	2,657
27	5.00	5.00	5.06	619	825	1,444	2,617
28	5.00	5.00	5.07	687	825	1,512	2,621
29	5.00	5.00	5.07	722	825	1,547	2,619
30	5.00	4.99	5.07	793	823	1,616	2,620
31	5.00	4.99	5.07	824	823	1,648	2,620
Monthly Total				22,030	28,264	50,294	101,294
Monthly Avg	5.12	5.40	5.70	816	1,009	1,796	3,268

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

December 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	--	--	16	16	--
2	--	0.10	--	--	16	16	--
3	--	0.10	--	--	15	15	--
4	0.16	0.10	--	2	13	15	--
5	0.11	0.10	--	6	12	18	--
6	0.10	0.10	--	6	11	17	--
7	0.10	0.10	--	6	9	15	--
8	0.10	0.10	--	7	5	12	--
9	0.10	0.10	--	7	8	15	--
10	--	--	--	--	--	--	--
11	0.10	0.10	--	7	7	14	--
12	0.10	0.10	--	9	8	17	--
13	0.10	0.10	--	8	8	16	--
14	0.10	0.10	--	7	7	15	--
15	0.10	0.10	--	7	8	15	--
16	0.10	0.10	--	8	8	16	--
17	0.10	0.10	--	11	4	15	--
18	0.10	0.01	--	14	0	14	--
19	0.10	--	--	13	0	13	--
20	0.10	0.10	--	11	4	15	--
21	0.10	0.10	--	8	9	16	--
22	0.10	0.10	--	8	9	16	--
23	0.10	0.10	--	7	9	15	--
24	0.10	0.10	--	7	9	15	--
25	0.10	0.10	--	7	9	15	--
26	0.10	0.10	--	6	8	15	--
27	0.15	0.10	--	9	8	17	--
28	0.11	0.10	--	8	8	16	--
29	0.10	0.10	--	7	8	15	--
30	0.10	0.10	--	8	8	16	--
31	0.10	0.10	--	8	8	16	--
Monthly Total				211	250	461	--
Monthly Avg	0.10	0.10	--	8	8	15	--

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 Praestol DW 27AG is **1.00 mg/L**

1.2.19 Carbon Chemical Consumption

December 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

December 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	--	2.85	--	57,054	59,926	3.57	131,295
2	--	3.02	--	60,443	64,179	3.47	136,580
3	--	3.07	--	57,388	60,200	3.48	144,551
4	--	3.01	--	50,894	55,822	3.37	115,737
5	2.53	2.92	17,322	42,708	63,190	3.11	122,983
6	2.74	2.74	20,573	37,678	61,464	3.12	127,505
7	2.70	2.70	20,117	31,154	54,709	3.09	113,045
8	2.61	2.61	23,947	15,007	40,661	3.02	104,010
9	2.53	2.57	20,712	26,671	49,331	2.99	115,523
10	--	--	--	--	--	3.02	124,742
11	2.49	2.41	22,542	20,450	45,158	3.03	127,704
12	2.70	2.60	30,198	26,165	58,992	2.99	120,710
13	2.60	2.52	27,199	25,242	55,544	3.03	112,139
14	2.55	2.53	23,596	23,429	49,733	3.07	105,189
15	2.53	2.50	22,129	23,649	48,166	3.04	105,672
16	2.52	2.46	25,171	24,555	52,671	3.04	112,133
17	2.58	2.50	34,435	14,049	50,721	3.06	112,883
18	2.65	--	46,281	--	48,738	2.98	110,071
19	2.62	--	43,483	--	46,119	3.07	110,817
20	2.69	2.24	37,697	10,015	50,574	3.15	112,531
21	2.65	2.62	25,754	27,829	55,786	3.14	111,725
22	2.52	2.52	23,624	26,771	52,291	3.10	110,409
23	2.49	2.49	21,686	26,474	49,836	3.06	106,814
24	2.52	2.52	20,453	26,742	50,375	3.00	102,864
25	2.46	2.46	20,014	26,139	49,473	2.98	102,007
26	2.51	2.48	20,052	26,042	48,429	2.84	95,179
27	2.53	2.55	18,995	25,500	46,889	2.88	94,924
28	2.60	2.60	21,670	26,000	50,285	2.87	94,704
29	2.65	2.61	23,177	26,114	51,755	2.89	95,319
30	2.48	2.48	23,850	24,826	50,885	2.80	92,452
31	2.45	2.45	24,473	24,507	51,433	2.85	94,041
Monthly Total			659,150	833,494	1,573,334		3,466,256
Monthly Avg	2.57	2.61	25,352	29,768	56,191	3.07	111,815

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

December 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.35	0.64	54	178
2	0.36	0.62	54	186
3	0.30	0.77	43	244
4	0.29	0.75	34	195
5	0.29	0.53	46	160
6	0.29	0.51	47	157
7	0.29	0.50	42	139
8	0.32	0.49	36	129
9	0.29	0.50	42	147
10	--	0.47	--	149
11	0.29	0.43	34	138
12	0.29	0.40	46	123
13	0.29	0.40	45	112
14	0.29	0.40	41	104
15	0.30	0.40	41	106
16	0.32	0.37	49	103
17	0.31	0.33	45	93
18	0.29	0.27	40	75
19	0.29	0.25	37	69
20	0.29	0.27	40	73
21	0.29	0.30	46	81
22	0.29	0.30	45	81
23	0.29	0.30	43	80
24	0.29	0.30	42	78
25	0.29	0.30	41	78
26	0.29	0.30	42	76
27	0.29	0.29	38	73
28	0.29	0.25	41	63
29	0.29	0.25	42	63
30	0.29	0.25	43	63
31	0.29	0.25	45	63
Monthly Total			1,285	3,477
Monthly Avg	0.30	0.40	43	112

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

December 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.59	--	480	--
2	0.59	--	474	--
3	0.59	--	448	--
4	0.58	--	354	--
5	0.59	--	490	--
6	0.59	--	503	--
7	0.59	--	451	--
8	0.59	--	351	--
9	0.58	--	442	--
10	--	--	--	--
11	0.59	--	360	--
12	0.59	--	496	--
13	0.59	--	481	--
14	0.59	--	441	--
15	0.59	--	430	--
16	0.59	--	478	--
17	0.59	--	452	--
18	0.59	--	423	--
19	0.59	--	399	--
20	0.59	--	427	--
21	0.59	--	491	--
22	0.59	--	479	--
23	0.59	--	457	--
24	0.59	--	449	--
25	0.59	--	442	--
26	0.59	--	444	--
27	0.59	--	411	--
28	0.59	--	433	--
29	0.59	--	447	--
30	0.59	--	465	--
31	0.59	--	480	--
Monthly Total			13,376	--
Monthly Avg	0.59	--	446	--

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

December 2024

Day	Dosage (mg/L)	Consumption (kg)
	E.L. Smith	E.L. Smith
1	0.56	1,396
2	0.57	1,495
3	0.58	1,585
4	0.58	1,351
5	0.58	1,567
6	0.58	1,623
7	0.58	1,473
8	0.58	1,378
9	0.58	1,540
10	0.58	1,622
11	0.57	1,647
12	0.57	1,585
13	0.57	1,442
14	0.57	1,320
15	0.57	1,348
16	0.57	1,457
17	0.57	1,434
18	0.57	1,436
19	0.56	1,383
20	0.56	1,376
21	0.56	1,369
22	0.56	1,369
23	0.56	1,332
24	0.56	1,310
25	0.56	1,323
26	0.56	1,288
27	0.56	1,255
28	0.56	1,296
29	0.56	1,271
30	0.56	1,310
31	0.56	1,294
Monthly Total		43,876
Monthly Avg	0.57	1,415

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

December 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	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
21	--	--	--	--
22	--	--	--	--
23	--	--	--	--
24	--	--	--	--
25	--	--	--	--
26	--	--	--	--
27	--	--	--	--
28	--	--	--	--
29	--	--	--	--
30	--	--	--	--
31	--	--	--	--
Monthly Total			--	--
Monthly Avg	--	--	--	--

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
December 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.63	0.57	446	633
2	0.63	0.57	441	675
3	0.63	0.57	417	697
4	0.62	0.57	328	593
5	0.63	0.57	456	690
6	0.63	0.57	468	715
7	0.63	0.57	420	649
8	0.63	0.57	326	607
9	0.62	0.57	411	678
10	--	0.57	--	721
11	0.62	0.57	334	739
12	0.63	0.57	461	710
13	0.63	0.57	447	647
14	0.63	0.57	410	593
15	0.63	0.57	400	606
16	0.63	0.57	445	653
17	0.63	0.56	421	636
18	0.63	0.57	394	653
19	0.63	0.57	372	634
20	0.63	0.57	397	630
21	0.63	0.57	457	626
22	0.63	0.57	446	626
23	0.63	0.57	425	609
24	0.63	0.57	418	599
25	0.63	0.57	411	606
26	0.63	0.57	413	589
27	0.63	0.57	382	574
28	0.63	0.57	403	593
29	0.63	0.57	416	581
30	0.63	0.57	433	599
31	0.63	0.57	446	591
Monthly Total			12,445	19,751
Monthly Avg	0.63	0.57	415	637

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

December 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	33.1	15.7	1,175	2,381	14	58
2	29.3	14.5	1,301	2,378	17	63
3	53.5	13.7	2,508	2,512	18	73
4	17.3	13.5	1,828	2,122	40	60
5	21.1	15.9	1,161	2,106	21	50
6	30.8	17.3	1,422	2,369	18	52
7	30.4	17.7	1,161	2,188	15	47
8	31.7	16.9	1,033	1,888	12	42
9	52.0	14.7	2,590	1,909	19	49
10	233	10.5	776	1,628	1.4	59
11	12.1	15.7	1,079	2,201	34	53
12	20.7	11.2	861	1,521	16	52
13	23.8	11.9	1,160	1,436	19	46
14	25.1	11.7	773	1,379	12	45
15	28.4	11.9	1,164	1,439	16	46
16	23.0	15.6	641	1,860	11	45
17	30.4	16.9	1,162	2,207	15	45
18	26.1	17.7	642	2,064	9.5	44
19	34.5	15.5	903	1,849	10	45
20	19.2	15.1	902	1,688	18	42
21	32.1	14.1	905	1,577	11	42
22	28.1	13.1	900	1,386	12	40
23	25.8	11.5	1,162	1,346	17	45
24	25.5	11.5	642	1,259	9.7	42
25	26.2	11.4	1,018	1,196	15	40
26	25.8	15.2	774	1,564	12	39
27	27.3	20.3	1,032	2,256	14	42
28	21.5	23.7	646	2,075	12	33
29	28.3	18.9	1,032	2,000	14	40
30	27.7	20.8	1,034	1,832	14	33
31	26.1	18.8	902	1,670	13	34
Monthly Total			34,290	57,284	478	1,448
Monthly Avg	34.5	15.3	1,106	1,848	15	47

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

December 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)		33	20	168	52	21	295	60.14			418.39		
Solids (kg)	TSS	25,898	137	27,969			54,004						
	Aluminium	2,204	9	9,682			11,894						
# of Bypasses						2		Min	Max	Avg	Min	Max	Avg
pH								6.0	8.8	7.4	6.5	8.2	7.7
Total Chlorine (mg/L)								0.00	0.00	0.00	0.00	0.00	0.00
Sulfite (mg/L)								1.06	20.0	9.61	1.91	20.0	13.5

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

December 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	LLP Flush	HLP Cooling	Total	De-chlorinated Waste flow to		
Volume (ML)		700	0.0	391	178	17	0.6	28	1,314	1,448		
Solids (kg)	TSS	68,342	0	48,449					116,791			
	Aluminium	4,313	0	16,771					21,084			
# of Bypasses						2				Min	Max	Avg
pH										7.49	7.89	7.74
Total Chlorine (mg/L)										0.00	0.00	0.00
Sulphite (mg/L)										0.21	20.0	6.94

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

December 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	1,451	2,466	3,917
FEBRUARY	3,750	165	183	6,828	278	301	10,578	433	371	1,507	2,211	3,718
MARCH	4,282	163	189	7,099	269	260	11,382	405	378	1,523	2,511	4,034
APRIL	4,610	183	212	6,550	246	232	11,159	419	389	1,250	2,653	3,902
MAY	4,521	183	204	7,297	272	318	11,818	438	422	1,546	2,841	4,387
JUNE	5,000	209	205	7,320	268	270	12,320	471	456	1,469	2,990	4,459
JULY	6,424	264	258	8,286	312	314	14,710	574	567	1,650	3,749	5,399
AUGUST	5,439	240	235	7,659	282	301	13,098	511	494	1,529	3,233	4,762
SEPTEMBER	4,814	192	206	7,441	284	327	12,255	466	445	1,361	3,040	4,401
OCTOBER	4,154	158	204	7,437	267	305	11,591	424	385	1,405	2,752	4,157
NOVEMBER	4,022	154	214	7,008	270	286	11,029	415	378	1,392	2,371	3,763
DECEMBER	4,073	154	155	7,253	272	293	11,326	415	379	1,451	2,389	3,840

2024 - HIGH 5-DAY DEMAND

	PLANTS PROD (ML/d)	RES. GAIN / LOSS (%)	RES. GAIN / LOSS (ML)	TOTAL DEMAND (ML)
17-Jul-2024	547	-0.8	-5.3	552
18-Jul-2024	555	-2.0	-12.4	567
19-Jul-2024	574	3.8	23.7	551
20-Jul-2024	512	0.4	2.3	510
21-Jul-2024	492	-5.7	-35.8	528
			AVERAGE:	542

Year to Date Data	2024	2023	% CHANGE
TOTAL PRODUCTION TO DATE (ML)	142,254	140,752	1.1
AVG. DAILY DEMAND TO DATE (ML)	389	386	0.8
PEAK DAILY DEMAND TO DATE (ML)	567	545	4.0
PEAK HOURLY DEMAND TO DATE (ML)	782	751	4.0
HIGH 5-DAY AVERAGE TO DATE (ML)	542	530	2.2

Peak daily demand of 567 ML/d occurred on July 18, 2024

Peak hourly demand of 782 ML/d occurred on July 18, 2024 at 21:00

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

January 2025

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	1.66	1.91	1.67	1.66	1.75	1.72	1.66	1.73	1.69	1.90	1.98	1.92	1.80	1.96	1.92	1.18	1.36	1.28
2	1.63	1.88	1.65	1.70	1.77	1.73	1.63	1.75	1.69	1.87	1.97	1.92	1.88	1.92	1.90	1.10	1.76	1.44
3	1.63	1.84	1.66	1.70	1.75	1.73	1.64	1.79	1.69	1.89	1.96	1.92	1.89	1.91	1.90	1.59	1.75	1.67
4	1.65	1.87	1.67	1.66	1.77	1.72	1.52	1.73	1.69	1.88	1.95	1.92	1.86	1.93	1.91	1.53	1.74	1.64
5	1.66	1.87	1.68	1.68	1.79	1.74	1.68	1.70	1.69	1.89	1.99	1.91	1.90	1.95	1.91	1.55	1.73	1.62
6	1.65	1.92	1.67	1.69	1.76	1.74	1.63	1.74	1.69	1.86	1.98	1.93	1.86	2.04	1.92	1.48	1.70	1.60
7	1.63	1.86	1.68	1.68	1.78	1.73	1.37	1.68	1.62	1.90	1.98	1.93	1.92	1.96	1.94	1.53	1.76	1.66
8	1.63	1.82	1.66	1.66	1.80	1.75	1.58	1.70	1.61	1.90	1.97	1.93	1.90	1.96	1.93	1.53	1.78	1.71
9	1.64	1.83	1.65	1.69	1.76	1.74	1.58	1.64	1.61	1.91	1.98	1.91	1.89	1.95	1.93	1.57	1.78	1.70
10	1.62	1.74	1.65	1.69	1.86	1.76	1.54	1.68	1.64	1.86	1.99	1.92	1.84	1.98	1.93	1.54	1.76	1.68
11	1.65	1.87	1.66	1.67	1.84	1.77	1.55	1.71	1.67	1.90	1.99	1.93	1.88	1.95	1.92	1.58	1.72	1.65
12	1.64	1.83	1.66	1.70	1.83	1.75	1.64	1.70	1.68	1.91	1.97	1.93	1.90	1.94	1.93	1.54	1.67	1.61
13	1.61	1.88	1.66	1.67	1.80	1.74	1.59	1.73	1.68	1.89	2.01	1.93	1.80	2.00	1.93	1.44	1.64	1.56
14	1.59	1.83	1.64	1.68	1.78	1.73	1.49	1.76	1.68	1.90	1.97	1.92	1.87	1.94	1.91	1.39	1.58	1.50
15	1.58	1.75	1.62	1.68	1.79	1.72	1.60	1.71	1.67	1.90	1.97	1.92	1.88	1.92	1.90	1.35	1.55	1.47
16	1.60	1.86	1.62	1.64	1.75	1.72	1.62	1.73	1.68	1.87	2.00	1.92	1.82	1.95	1.89	1.37	1.62	1.51
17	1.62	1.88	1.63	1.67	1.75	1.72	1.44	1.72	1.68	1.90	1.98	1.92	1.84	1.91	1.89	1.39	1.63	1.53
18	1.63	1.85	1.65	1.66	1.78	1.72	1.65	1.73	1.69	1.90	1.99	1.93	1.86	1.91	1.88	1.41	1.59	1.49
19	1.60	1.81	1.61	1.65	1.76	1.72	1.66	1.72	1.69	1.87	1.96	1.92	1.86	1.88	1.87	1.37	1.51	1.44
20	1.57	1.77	1.60	1.66	1.80	1.71	1.60	1.74	1.69	1.91	1.96	1.93	1.84	1.91	1.87	1.33	1.47	1.41
21	--	--	--	1.67	1.75	1.72	1.44	1.74	1.68	1.93	1.99	1.95	1.80	1.90	1.87	1.30	1.55	1.46
22	1.62	1.80	1.63	1.64	1.78	1.71	1.54	1.72	1.68	1.90	1.97	1.93	1.83	1.88	1.87	1.36	1.62	1.52
23	1.55	1.88	1.62	1.69	1.74	1.71	1.55	1.75	1.68	1.89	1.95	1.92	1.82	1.90	1.86	1.41	1.61	1.51
24	1.60	1.86	1.63	1.64	1.75	1.69	1.56	1.73	1.68	1.89	1.94	1.91	1.83	2.06	1.90	1.37	1.55	1.45
25	1.63	1.86	1.65	1.66	1.76	1.69	1.64	1.72	1.69	1.87	1.96	1.91	1.86	1.90	1.88	1.31	1.44	1.37
26	1.55	1.85	1.66	1.59	1.76	1.69	1.60	1.73	1.69	1.87	1.96	1.89	1.80	1.88	1.86	1.27	1.40	1.34
Monthly Min/Max/Avg	1.55	1.92	1.65	1.59	1.86	1.73	1.37	1.79	1.67	1.86	2.01	1.92	1.80	2.06	1.90	1.10	1.78	1.53

NOTES: '--' Indication Analyzer Offline

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

January 2025

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				1.71	1.81	1.78	1.47	1.80	1.50				1.74	1.94	1.75	1.72	1.78	1.75
2				1.26	1.83	1.74	1.47	1.87	1.51				1.71	1.94	1.75	1.70	1.77	1.75
3				1.55	1.80	1.69	1.46	1.86	1.51	1.60	1.73	1.52	1.70	1.95	1.72	1.70	1.77	1.74
4				1.67	1.79	1.73	1.44	1.88	1.50	1.63	1.66	1.65				1.70	1.88	1.75
5	--	--	--	1.64	1.80	1.73	1.52	1.86	1.55	1.57	1.66	1.63	1.68	1.97	1.72	1.61	1.88	1.75
6	--	--	--	1.60	1.80	1.73	1.51	1.91	1.56	1.57	1.63	1.62	1.67	1.97	1.70	1.71	1.79	1.75
7	1.66	1.66	1.66	1.68	1.83	1.76	1.50	1.88	1.53	1.56	1.64	1.60	1.67	1.94	1.70	1.70	1.79	1.75
8	--	--	--	1.66	1.83	1.74	--	--	--	1.51	1.60	1.58	1.67	1.97	1.68	1.66	1.87	1.75
9	1.66	1.66	1.66	1.65	1.77	1.73	1.48	1.90	1.51	1.51	1.58	1.58	1.69	1.97	1.70	1.62	2.30	1.83
10	--	--	--	1.58	1.77	1.70	1.47	1.90	1.54	1.52	1.59	1.57	1.66	1.98	1.69	2.03	2.13	2.08
11	--	--	--	1.61	1.78	1.70	--	--	--	1.52	1.59	1.58	--	--	--	2.00	2.09	2.04
12	--	--	--	1.67	1.79	1.71	1.53	1.91	1.58	1.49	1.61	1.59	1.70	1.97	1.72	1.99	2.07	2.04
13	1.69	1.72	1.70	1.65	1.79	1.71	1.57	1.88	1.59	1.52	1.63	1.59	1.59	1.96	1.73	1.99	2.06	2.04
14	1.69	1.69	1.69	1.58	1.76	1.70	1.56	1.87	1.59	1.50	1.61	1.57	1.70	1.94	1.72	1.98	2.05	2.02
15	--	--	--	1.54	1.76	1.68	1.52	1.87	1.56	1.50	1.59	1.57	1.69	1.93	1.71	1.97	2.03	2.01
16	--	--	--	1.61	1.77	1.70	1.54	1.90	1.57	1.49	1.59	1.58	1.66	1.96	1.69	1.97	2.02	2.00
17				1.65	1.77	1.71	1.54	1.88	1.57	1.52	1.60	1.59	1.66	1.95	1.68	1.94	2.03	1.99
18				1.64	1.80	1.71				1.52	1.60	1.59				1.92	1.99	1.96
19				1.63	1.74	1.69	1.52	1.88	1.57	1.50	1.60	1.59				1.92	1.98	1.95
20	1.66	1.69	1.69	1.61	1.77	1.70	1.50	1.84	1.54	1.54	1.60	1.58	1.63	1.99	1.65	1.76	1.99	1.87
21				1.58	1.78	1.69	1.55	1.87	1.57	1.47	1.63	1.59				1.74	1.82	1.79
22	1.65	1.69	1.68	1.59	1.75	1.71				1.49	1.62	1.58				1.73	1.80	1.77
23				1.56	1.84	1.70	1.54	1.87	1.57	1.56	1.62	1.60	1.67	1.94	1.69	1.72	1.77	1.75
24				1.61	1.80	1.71				1.51	1.63	1.60				1.70	1.76	1.74
25	--	--	--	1.59	1.79	1.71	--	--	--	1.50	1.63	1.61	1.64	1.93	1.65	1.70	1.75	1.73
26	--	--	--	1.56	1.79	1.72	1.49	1.87	1.52	1.58	1.64	1.62	1.65	1.93	1.66	1.70	1.75	1.73
Monthly Min/Max/Avg	1.65	1.72	1.68	1.26	1.84	1.71	1.44	1.91	1.55	1.47	1.73	1.59	1.59	1.99	1.70	1.61	2.30	1.86

NOTES: '--' Indication Analyzer Offline

1.2.31 Phosphoric Acid Chemical Consumption

December 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.90	0.90	589	850
2	0.90	0.90	568	1,017
3	0.89	0.90	548	878
4	0.80	0.90	304	789
5	0.90	0.90	558	909
6	0.90	0.90	573	966
7	0.90	0.90	558	978
8	0.90	0.90	367	850
9	0.90	0.90	543	918
10	--	0.90	--	1,022
11	0.90	0.90	373	951
12	0.90	0.90	578	1,015
13	0.90	0.90	546	982
14	0.90	0.90	549	783
15	0.90	0.90	488	906
16	0.90	0.90	585	836
17	0.90	0.90	511	953
18	0.90	0.90	463	921
19	0.90	0.90	465	815
20	0.90	0.90	490	878
21	0.90	0.90	586	912
22	0.90	0.90	580	840
23	0.90	0.90	509	886
24	0.90	0.90	553	883
25	0.90	0.90	476	826
26	0.90	0.90	526	866
27	0.90	0.90	508	795
28	0.90	0.90	490	800
29	0.90	0.90	522	800
30	0.90	0.90	530	872
31	0.90	0.90	558	837
Monthly Total			15,492	27,532
Monthly Avg	0.90	0.90	516	888

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

December 2024

Date and Time Reported	Location of Mainbreak	Repaired (Time)	Size	Type**
2024-12-01 7:14	11832-123 STREET NW	2024-12-01 20:30	150	CI
2024-12-02 14:13	11232-100 AVENUE NW	2024-12-06 11:15	150	PVC
2024-12-02 22:21	9813-75 AVENUE NW	2024-12-03 14:30	150	CI
2024-12-03 12:06	11814C-79 STREET NW	2024-12-03 22:45	150	CI
2024-12-06 10:07	3130-132A AVENUE NW		200	AC
2024-12-08 8:53	6008-134 AVENUE NW	2024-12-08 21:00	150	CI
2024-12-08 11:58	7915-129 AVENUE NW	2024-12-09 11:33	150	CI
2024-12-08 21:00	5923-134A AVENUE NW	2024-12-08 21:45	150	CI
2024-12-08 21:45	5923-134A AVENUE NW	2024-12-09 15:27	150	CI
2024-12-08 21:46	3514-78 STREET NW	2024-12-09 16:22	150	CI
2024-12-09 19:05	5923-134A AVENUE NW	2024-12-10 12:00	150	CI
2024-12-10 14:20	10118-74 STREET NW	2024-12-11 14:00	150	CI
2024-12-12 9:18	W 114 ST - 50 AVE	2024-12-12 17:10	200	PVC
2024-12-12 17:18	11412-50 AVENUE NW	2024-12-12 18:25	200	CI
2024-12-14 13:17	10004-146 STREET NW	2024-12-14 21:05	150	CI
2024-12-16 10:21	9708-75 STREET NW	2024-12-17 14:00	250	CI
2024-12-16 17:28	10004-146 STREET NW	2024-12-17 17:10	150	CI
2024-12-18 3:43	7730-152 STREET NW	2024-12-18 19:22	150	CI
2024-12-18 11:32	15103-77 AVENUE NW	2024-12-18 20:17	150	CI
2024-12-18 19:22	15203-78 AVENUE NW	2024-12-19 13:10	150	CI
2024-12-19 13:07	7730-152 STREET NW	2024-12-19 15:23	150	CI
2024-12-19 13:12	7730-152 STREET NW	2024-12-19 15:23	150	CI
2024-12-19 13:15	7730-152 STREET NW	2024-12-19 15:23	150	CI
2024-12-19 13:17	7730-152 STREET NW	2024-12-19 15:23	150	CI
2024-12-19 16:26	12051-56 STREET NW	2024-12-20 9:00	150	CI
2024-12-24 16:25	152-MILLBOURNE ROAD EAST NW	2024-12-24 22:45	200	AC
2024-12-25 6:25	11810-64 STREET NW	2024-12-25 12:25	150	CI
2024-12-25 13:05	11127-73 AVENUE NW	2024-12-25 19:33	150	CI
2024-12-25 13:18	11423-78 AVENUE NW	2024-12-25 20:01	150	CI
2024-12-31 15:54	13208B-119 STREET NW	2024-12-31 17:19	300	CI

Month	Total Breaks By Month
Jan-24	35
Feb-24	28
Mar-24	13
Apr-24	18
May-24	10
Jun-24	8
Jul-24	11
Aug-24	16
Sep-24	19
Oct-24	19
Nov-24	36
Dec-24	29
YTD 2024	**242**

**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 2024

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 2024 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

December 2024

Parameter	Unit	Monthly Count	Monthly Average	YTD Median	YTD Min	YTD Max	YTD Count
Alkalinity Total	mg CaCO3/L	61	123	119	8	143	725
Aluminum	mg/L	2	0.083	0.071	0.023	0.125	24
Arsenic	mg/L	2	0.0003	<0.0002	<0.0002	0.0003	24
Bromate Dissolved	mg/L	10	<0.003	<0.005	<0.005	<0.005	106
Bromodichloromethane	ug/L	61	0.7	1.0	<0.5	2.6	718
Cadmium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	24
Calcium Hardness	mg/L CaCO3	61	119	116	96	141	711
Chlorate Dissolved	mg/L	10	0.140	0.183	<0.100	0.332	106
Chloride Dissolved	mg/L	10	5.66	5.91	3.89	12.10	106
Chlorite Dissolved	mg/L	10	<0.16	<0.20	<0.20	<0.20	106
Chromium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	24
Colour	TCU	61	0.9	0.9	<0.5	1.9	725
Conductivity	µS/cm	9	387	393	342	453	105
Copper	mg/L	2	<0.0020	<0.0050	<0.0050	<0.0050	24
Cryptosporidium	oocysts/100L	2	<0.1	<0.1	<0.1	<0.1	32
Fluoride	mg/L	61	0.68	0.68	0.61	0.79	725
Giardia	cysts/100L	2	<0.1	<0.1	<0.1	<0.1	32
Haloacetic Acids, total (HAA5)	mg/L	2	0.0204	0.0202	0.0097	0.0471	24
Iron	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	24
Manganese	mg/L	2	<0.0020	<0.0020	<0.0020	<0.0020	24
Mercury	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	24
Nitrate (as N) Dissolved	mg/L	2	0.080	0.040	<0.010	0.170	98
Nitrite (as N) Dissolved	mg/L	2	<0.01	<0.01	<0.01	0.02	98
pH	N/A	61	8.0	7.9	7.5	8.3	726
Potassium	mg/L	2	0.90	0.80	0.60	1.10	24
Sodium	mg/L	2	8.13	9.90	6.70	18.90	24
Sulphate Dissolved	mg/L	10	62.7	71.1	59.3	95.1	106
Total Chlorine	mg/L	61	2.11	2.15	1.84	2.40	725
Total Dissolved Solids	mg/L	2	231	229	195	252	24
Total Hardness	mg/L CaCO3	61	181	177	145	218	711
Total Organic Carbon	mg/L C	10	1.0	1.4	<0.6	2.8	106
Trihalomethanes	mg/L	61	0.014	0.015	0.005	0.040	718
Turbidity	NTU	61	0.07	0.05	<0.04	0.22	725
Uranium	mg/L	2	0.0006	<0.0005	<0.0005	0.0006	24
Zinc	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	24
Bacteriological Data							
Coliforms, total	PA/100mL	61	Absent	Absent	Absent	Absent	725
E. coli	PA/100mL	61	Absent	Absent	Absent	Absent	725

2.1.3 SUMMARY OF LABORATORY ANALYSIS - 2024

DISTRIBUTION OF TESTING

Drinking Water Testing

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Total**
Water Treatment Plant	# Tests	10,442	9,566	10,736	10,143	9,855	10,053	10,306	10,156	6,169	10,169	9,697	6,693	113,985
	# Samples	261	248	326	269	264	260	268	273	257	268	253	256	3,203
Field Reservoirs	# Tests	1,936	1,721	1,695	1,883	1,734	2,006	2,225	1,917	1,779	2,035	1,596	1,918	22,445
	# Samples	63	52	52	65	49	53	66	54	52	65	52	64	687
Routine Distribution System	# Tests	2,740	2,879	2,734	2,845	2,901	2,692	2,424	2,401	2,142	3,187	2,728	2,634	32,307
	# Samples	146	153	146	153	144	124	99	106	103	165	148	143	1,630
System Depressurization/Repair	# Tests	1,050	720	555	675	660	630	628	480	723	735	825	540	8,221
	# Samples	70	48	37	45	44	42	42	32	48	49	55	36	548
Customer Complaints	# Tests	1,395	651	1,209	1,488	1,023	1,209	1,009	1,731	952	910	724	332	12,633
	# Samples	15	7	13	16	11	13	11	19	13	10	8	4	140
Subtotal	# Tests	17,563	15,537	16,929	17,034	16,173	16,590	16,592	16,685	11,765	17,036	15,570	12,117	189,591
	# Samples	555	508	574	548	512	492	486	484	473	557	516	503	6,208

Additional Testing

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Total**
New Watermain Testing	# Tests	80	30	0	10	135	160	495	275	305	330	580	494	2,894
	# Samples	17	6	0	2	27	32	99	55	61	66	116	95	576
Water Treatment Plant Waste Discharge	# Tests	168	43	173	117	300	327	284	595	68	73	271	64	2,483
	# Samples	56	33	36	45	55	51	50	52	34	35	45	25	517
Quality Control	# Tests	5,961	6,042	6,091	5,937	6,055	6,793	8,719	8,020	5,721	7,034	6,061	5,576	78,010
	# Samples	1,187	1,056	1,193	1,186	1,244	1,418	1,629	1,747	1,581	1,776	1,611	1,878	17,506
Distribution Water Enhanced Surveillance	# Tests	0	0	0	0	0	540	1,337	1,091	960	0	0	0	3,928
	# Samples	0	0	0	0	0	20	53	45	40	0	0	0	158
ELS Online Monitoring	# Tests	0	0	0	0	0	0	0	0	0	4	4	0	8
	# Samples	0	0	0	0	0	0	0	0	0	2	2	0	4
Externally Contracted Analyses	# Tests	405	672	316	307	949	798	832	595	7,210	817	745	6,064	19,710
	# Samples	134	120	157	136	140	122	139	130	240	174	147	238	1,877
Rossdale Online Monitoring	# Tests	0	0	0	0	0	0	0	0	0	2	2	0	4
	# Samples	0	0	0	0	0	0	0	0	0	1	1	0	2
Subtotal	# Tests	6,614	6,787	6,580	6,371	7,439	8,618	11,667	10,576	14,264	8,260	7,663	12,198	107,037
	# Samples	1,394	1,215	1,386	1,369	1,466	1,643	1,970	2,029	1,956	2,054	1,921	2,236	20,639

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Total**
Grand Total	# Tests	24,177	22,324	23,509	23,405	23,612	25,208	28,259	27,261	26,029	25,296	23,233	24,315	**296,628**
	# Samples	1,825	1,611	1,848	1,793	1,842	2,022	2,327	2,399	2,198	2,455	2,304	2,506	**25,130**

2.1.4 QUALITY ASSURANCE – December 2024

Drinking water quality must meet the requirements in the Alberta Environment and Protected Areas *Approval-to-Operate* (638-04-01) 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 October 2024. Health Canada updates their on-line document regularly, but they recommend always consulting individual guideline technical documents and guidance documents on Health Canada's website, "Water Quality—Reports and Publications" for the most current information. Guideline limits are listed as Maximum Acceptable Concentrations (MACs), Aesthetic Objectives (AO) or Operational Guidelines (OG). The latest edition of Health Canada's 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* (638-04-01) 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 AEPA *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.

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

Current month: **0** YTD Total: **3**

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

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

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

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

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

Sample Type	This Month	YTD
Depressurization Samples	0	1
Complaint Samples	0	0
Random Samples	0	2
Reservoirs	0	0
TOTAL (Distribution)	0	3

2.1.4.5 **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	3
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	1	3
Total Variances + Violations	1 + 0 = 1	6 + 0 = 6

Notes: 1) Variance statistics include any violations.

2) As of October 18, 2024 both ELS and ROS WTP were converted to Direct Filtration mode. Aluminium limit changes from 0.1 mg/L to 0.2 mg/L (operational guideline), when in Direct Filtration.

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

Variance Category[1]	This Month	YTD
Turbidity > 1 NTU	3	149
Chlorine < 1 mg/L or > 2.4 mg/L	0	22
Single Positive Coliform	0	10
THMs > 50 µg/L	0	0
Pipe Lube, Odour, UV positive	0	2
Aluminium[2] > 0.20 (or 0.1) mg/L	1	37
Iron > 0.300 mg/L	0	6
Other	0	3
Total Variances + Violations	4 + 0 = 4	229 + 3 = 232

Notes: 1) Variance statistics include any violations.
2) As of October 18, 2024 both ELS and ROS WTP were converted to Direct Filtration mode. Aluminium limit changes from 0.1 mg/L to 0.2 mg/L (operational guideline), when in Direct Filtration.

2.1.4.7 **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
February															
Rossdale Raw (MPN/100mL)	29			144	1	816			12	1	44	1	17.0	17.0	17.0
E.L. Smith Raw (MPN/100mL)	4			18	12	28			1	1	2	1	11.8	11.8	11.8
Raw River Water Entering the Treatment Plants	33			129	1	816			10	1	44	2	14.4	11.8	17.0
Rossdale Treated (PA/100mL)	28	0	0.0				0	0.0				28	0.73	0.11	1.00
E.L. Smith Treated (PA/100mL)	29	0	0.0				0	0.0				29	0.64	0.11	1.48
Water Entering the Plant Reservoir	57	0	0.0				0	0.0				57	0.69	0.11	1.48
Rossdale Reservoir (PA/100mL)	28	0	0.0				0	0.0				28	0.74	0.11	1.00
E.L. Smith Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.68	0.11	1.00
Treated Water Entering the Distribution System	57	0	0.0				0	0.0				57	0.71	0.11	1.00

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
March															
Rossdale Raw (MPN/100mL)	32			1,469	1	13,700			87	1	1,760	1	293	293	293
E.L. Smith Raw (MPN/100mL)	4			2,505	8	9,770			16	1	62	1	60.7	60.7	60.7
Raw River Water Entering the Treatment Plants	36			1,584	1	13,700			79	1	1,760	2	177	60.7	293
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.70	0.12	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.77	0.13	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.74	0.12	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.71	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.67	0.11	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.69	0.10	1.00
April															
Rossdale Raw (MPN/100mL)	31			208	1	1,120			9	1	58	1	92.2	92.2	92.2
E.L. Smith Raw (MPN/100mL)	4			353	91	980			2	1	5	1	126	126	126
Raw River Water Entering the Treatment Plants	35			225	1	1,120			8	1	58	2	109	92.2	126
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.66	0.14	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.57	0.10	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.61	0.10	1.00
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.58	0.11	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.56	0.10	1.00
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.57	0.10	1.00

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
May															
Rossdale Raw (MPN/100mL)	30			174	1	517			16	1	63	1	121	121	121
E.L. Smith Raw (MPN/100mL)	5			194	43	276			9	2	22	1	99.6	99.6	99.6
Raw River Water Entering the Treatment Plants	35			177	1	517			15	1	63	2	110	99.6	121
Rossdale Treated (PA/100mL)	29	0	0.0				0	0.0				29	0.49	0.10	1.02
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.44	0.11	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.46	0.10	1.02
Rossdale Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.50	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.42	0.11	1.00
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.46	0.10	1.00
June															
Rossdale Raw (MPN/100mL)	31			158	1	1,410			8	1	45	1	77.0	77.0	77.0
E.L. Smith Raw (MPN/100mL)	4			131	48	249			7	2	15	1	66.5	66.5	66.5
Raw River Water Entering the Treatment Plants	35			155	1	1,410			8	1	45	2	71.8	66.5	77.0
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.66	0.14	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.61	0.10	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.64	0.10	1.00
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.73	0.12	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.71	0.10	1.03
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.72	0.10	1.03

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
July															
Rossdale Raw (MPN/100mL)	31			1,838	179	22,400			51	1	538	1	80.6	80.6	80.6
E.L. Smith Raw (MPN/100mL)	5			912	162	1,990			38	1	115	1	50.6	50.6	50.6
Raw River Water Entering the Treatment Plants	36			1,709	162	22,400			50	1	538	2	65.6	50.6	80.6
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.89	0.12	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.89	0.12	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.89	0.12	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.91	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.86	0.11	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.89	0.10	1.00
August															
Rossdale Raw (MPN/100mL)	32			1,548	1	11,600			156	1	1,450	1	56.3	56.3	56.3
E.L. Smith Raw (MPN/100mL)	9			504	218	1,300			25	11	77	1	59.6	59.6	59.6
Raw River Water Entering the Treatment Plants	41			1,319	1	11,600			128	1	1,450	2	57.9	56.3	59.6
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.97	0.11	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.94	0.12	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.96	0.11	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.97	0.13	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.97	0.10	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.97	0.10	1.00

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
September															
Rossdale Raw (MPN/100mL)	30			373	1	1,414			25	1	124	1	29.3	29.3	29.3
E.L. Smith Raw (MPN/100mL)	4			215	53	579			17	6	34	0			
Raw River Water Entering the Treatment Plants	34			354	1	1,414			24	1	124	1	29.3	29.3	29.3
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	1.47	0.11	18.5
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.71	0.10	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	1.09	0.10	18.5
Rossdale Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.94	0.12	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.86	0.12	1.00
Treated Water Entering the Distribution System	59	0	0.0				0	0.0				59	0.90	0.12	1.00
October															
Rossdale Raw (MPN/100mL)	32			375	1	6,152			11	1	126	1	13.5	13.5	13.5
E.L. Smith Raw (MPN/100mL)	5			127	91	161			5	3	9	2	27.5	19.6	35.4
Raw River Water Entering the Treatment Plants	37			341	1	6,152			11	1	126	3	22.8	13.5	35.4
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.77	0.11	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.78	0.13	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.78	0.11	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.81	0.12	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.73	0.10	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.77	0.10	1.00

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
November															
Rossdale Raw (MPN/100mL)	30			82	1	148			4	1	23	1	15.7	15.7	15.7
E.L. Smith Raw (MPN/100mL)	4			88	70	121			3	1	4	0			
Raw River Water Entering the Treatment Plants	34			83	1	148			4	1	23	1	15.7	15.7	15.7
Rossdale Treated (PA/100mL)	29	0	0.0				0	0.0				29	0.77	0.10	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.51	0.10	1.00
Water Entering the Plant Reservoir	59	0	0.0				0	0.0				59	0.63	0.10	1.00
Rossdale Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.94	0.13	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.60	0.10	1.00
Treated Water Entering the Distribution System	59	0	0.0				0	0.0				59	0.77	0.10	1.00
December															
Rossdale Raw (MPN/100mL)	31			199	1	1,203			21	1	157	1	40.3	40.3	40.3
E.L. Smith Raw (MPN/100mL)	5			76	41	88			1	1	1	1	44.2	44.2	44.2
Raw River Water Entering the Treatment Plants	36			182	1	1,203			18	1	157	2	42.2	40.3	44.2
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.55	0.11	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.47	0.10	1.00
Water Entering the Plant Reservoir	61	0	0.0				0	0.0				61	0.51	0.10	1.00
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.52	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.49	0.10	1.00
Treated Water Entering the Distribution System	61	0	0.0				0	0.0				61	0.50	0.10	1.00

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

2.2.2 Bacteriological Data: Distribution System

2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
January									
Complaint Water	15	0	0.0	0	0.0	15	0.36	0.14	1.50
FIELD DISTRIBUTION	146	0	0.0	0	0.0	55	0.28	0.11	0.86
FIELD DISTRIBUTION - PLPH	55	1	1.8	0	0.0				
FIELD RESERVOIR	63	0	0.0	0	0.0	63	0.36	0.11	1.26
FIELD RESERVOIR - PLPH (duplicate-not counted)	63	0	0.0	0	0.0				
Monthly	224	1	0.4	0	0.0	133	0.33	0.11	1.50
February									
Complaint Water	7	0	0.0	0	0.0	7	0.17	0.12	0.32
FIELD DISTRIBUTION	153	0	0.0	0	0.0	54	0.21	0.10	1.09
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.20	0.10	0.51
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	212	0	0.0	0	0.0	113	0.20	0.10	1.09
March									
Complaint Water	13	0	0.0	0	0.0	13	0.18	0.11	0.42
FIELD DISTRIBUTION	146	0	0.0	0	0.0	54	0.28	0.11	0.96
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.23	0.10	0.80
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	211	0	0.0	0	0.0	119	0.25	0.10	0.96
April									
Complaint Water	16	0	0.0	0	0.0	16	0.35	0.12	0.75
FIELD DISTRIBUTION	153	1	0.7	0	0.0	55	0.29	0.10	2.48
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	65	0	0.0	0	0.0	65	0.35	0.10	1.67
FIELD RESERVOIR - PLPH (duplicate-not counted)	64	0	0.0	0	0.0				
Monthly	234	1	0.4	0	0.0	136	0.33	0.10	2.48

2.2.2 Bacteriological Data: Distribution System

2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
May									
Complaint Water	11	0	0.0	0	0.0	11	0.27	0.10	0.49
FIELD DISTRIBUTION	144	0	0.0	0	0.0	54	0.43	0.12	1.46
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	49	0	0.0	0	0.0	49	0.58	0.10	2.93
FIELD RESERVOIR - PLPH (duplicate-not counted)	49	0	0.0	0	0.0				
Monthly	204	0	0.0	0	0.0	114	0.47	0.10	2.93
June									
Complaint Water	13	0	0.0	0	0.0	13	0.39	0.11	0.91
Distribution Water Enhanced Surveillance	20	0	0.0	0	0.0	20	0.45	0.10	2.08
FIELD DISTRIBUTION	124	0	0.0	0	0.0	58	0.39	0.11	0.93
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.49	0.10	3.85
FIELD RESERVOIR - PLPH (duplicate-not counted)	51	0	0.0	0	0.0				
Monthly	209	0	0.0	0	0.0	143	0.43	0.10	3.85
July									
Complaint Water	11	0	0.0	0	0.0	11	0.64	0.24	1.66
Distribution Water Enhanced Surveillance	53	2	3.8	0	0.0	49	0.27	0.10	0.65
FIELD DISTRIBUTION	99	2	2.0	0	0.0	59	0.19	0.11	0.41
FIELD DISTRIBUTION - PLPH	58	0	0.0	0	0.0				
FIELD RESERVOIR	66	0	0.0	0	0.0	66	0.52	0.11	2.40
FIELD RESERVOIR - PLPH (duplicate-not counted)	65	0	0.0	0	0.0				
Monthly	229	4	1.7	0	0.0	185	0.34	0.10	2.40

2.2.2 Bacteriological Data: Distribution System

2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
August									
Complaint Water	19	0	0.0	0	0.0	19	4.04	0.10	42.04
Distribution Water Enhanced Surveillance	45	2	4.4	0	0.0	45	0.38	0.10	1.60
FIELD DISTRIBUTION	105	0	0.0	0	0.0	63	0.28	0.11	1.69
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	53	0	0.0	0	0.0	53	0.59	0.10	4.37
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	222	2	0.9	0	0.0	180	0.75	0.10	42.04
September									
Complaint Water	13	0	0.0	0	0.0	13	0.48	0.14	1.12
Distribution Water Enhanced Surveillance	40	0	0.0	0	0.0	40	0.43	0.10	2.85
FIELD DISTRIBUTION	104	0	0.0	0	0.0	61	0.31	0.10	1.08
FIELD DISTRIBUTION - PLPH	58	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.56	0.10	2.76
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	209	0	0.0	0	0.0	166	0.42	0.10	2.85
October									
Complaint Water	10	0	0.0	0	0.0	10	0.25	0.11	0.39
FIELD DISTRIBUTION	163	1	0.6	0	0.0	75	0.32	0.10	0.80
FIELD DISTRIBUTION - PLPH	73	0	0.0	0	0.0				
FIELD RESERVOIR	65	0	0.0	0	0.0	65	0.39	0.10	1.18
FIELD RESERVOIR - PLPH (duplicate-not counted)	65	0	0.0	0	0.0				
Monthly	238	1	0.4	0	0.0	150	0.33	0.10	1.18

2.2.2 Bacteriological Data: Distribution System

2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
November									
Complaint Water	8	0	0.0	0	0.0	7	0.29	0.11	0.62
FIELD DISTRIBUTION	149	0	0.0	0	0.0	60	0.39	0.10	7.86
FIELD DISTRIBUTION - PLPH	57	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.15	0.10	0.31
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	209	0	0.0	0	0.0	119	0.33	0.10	7.86
December									
Complaint Water	4	0	0.0	0	0.0	4	0.15	0.10	0.22
FIELD DISTRIBUTION	144	0	0.0	0	0.0	56	0.22	0.10	0.61
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	64	0	0.0	0	0.0	64	0.22	0.10	1.82
FIELD RESERVOIR - PLPH (duplicate-not counted)	64	0	0.0	0	0.0				
Monthly	212	0	0.0	0	0.0	124	0.21	0.10	1.82
Year to Date	3,294	9	0.3	0	0.0	1,682	0.39	0.10	42.04

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 AEPA 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

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
February	7	0	0.0	0	0.0	7	0.17	0.12	0.32
March	13	0	0.0	0	0.0	13	0.18	0.11	0.42
April	16	0	0.0	0	0.0	16	0.35	0.12	0.75
May	11	0	0.0	0	0.0	11	0.27	0.10	0.49
June	13	0	0.0	0	0.0	13	0.39	0.11	0.91
July	11	0	0.0	0	0.0	11	0.64	0.24	1.66
August	19	0	0.0	0	0.0	19	4.04	0.10	42.04
September	13	0	0.0	0	0.0	13	0.48	0.14	1.12
October	10	0	0.0	0	0.0	10	0.25	0.11	0.39
November	8	0	0.0	0	0.0	7	0.29	0.11	0.62
December	4	0	0.0	0	0.0	4	0.15	0.10	0.22
Year to Date	140	0	0.0	0	0.0	139	0.79	0.10	42.04
Samples from Depressurizations									
January	70	0	0.0	0	0.0				
February	48	0	0.0	0	0.0				
March	37	0	0.0	0	0.0				
April	45	0	0.0	0	0.0				
May	44	0	0.0	0	0.0				
June	42	0	0.0	0	0.0				
July	42	0	0.0	0	0.0				
August	32	0	0.0	0	0.0				
September	48	0	0.0	0	0.0				
October	49	0	0.0	0	0.0				
November	55	0	0.0	0	0.0				
December	36	0	0.0	0	0.0				
Year to Date	548	0	0.0	0	0.0				

2.2.3 Giardia and Cryptosporidium

2024

Treated Water entering the distribution system

	Cryptosporidium oocysts/100L		Giardia cysts/100L	
	E.L. Smith	Rossdale	E.L. Smith	Rossdale
23 - Jan		<0.1		<0.1
	<0.09		<0.09	
12 - Feb		<0.1		<0.1
	<0.09		<0.09	
21 - Mar		<0.1		<0.1
	<0.1		<0.1	
15 - Apr	<0.1		<0.1	
16 - Apr		<0.1		<0.1
13 - May	<0.1		<0.1	
14 - May		<0.1		<0.1
11 - Jun	<0.1		<0.1	
12 - Jun		<0.1		<0.1
11 - Jul		<0.1		<0.1
	<0.1		<0.1	
1 - Aug		<0.1		<0.1
	<0.1		<0.1	
9 - Sep		<0.1		<0.1
10 - Sep	<0.09		<0.09	
16 - Sep		<0.1		<0.1
17 - Sep	<0.1		<0.1	
23 - Sep		<0.09		<0.09
24 - Sep	<0.09		<0.09	
15 - Oct		<0.1		<0.1
	<0.09		<0.09	
22 - Oct	<0.1		<0.1	
23 - Oct		<0.1		<0.1
28 - Oct		<0.1		<0.1
	<0.1		<0.1	
5 - Nov		<0.1		<0.1
	<0.09		<0.09	
11 - Dec		<0.1		<0.1
	<0.09		<0.09	

Water entering plant reservoir

	Cryptosporidium oocysts/100L	Giardia cysts/100L
	Rossdale	Rossdale
29 - Oct	<0.1	<0.1

2.2.3 Giardia and Cryptosporidium

2024

Raw Water

	Cryptosporidium oocysts/100L		Giardia cysts/100L	
	E.L. Smith	**Rossdale**	**E.L. Smith**	**Rossdale**
23 - Jan		<6.93		<6.93
	<1.28		<1.28	
12 - Feb		<39.6		158.4
	<1		9	
21 - Mar		5.5		39.0
	<4.2		8.3	
15 - Apr	13.0		13.0	
16 - Apr		<23.0		23.0
13 - May	<13.0		26.0	
14 - May		<14.0		14.0
11 - Jun	<3.7		<3.7	
12 - Jun		<2.6		7.8
11 - Jul		<9.5		9.5
	19.0		19.0	
1 - Aug		2.4		23.0
	<2.5		5.0	
9 - Sep		<3.89		<3.89
10 - Sep	<6.62		6.6	
16 - Sep		9.0		86.0
17 - Sep	<6.5		6.5	
23 - Sep		<0.99		3
24 - Sep	<1		7	
2 - Oct		<0.99		7.9
7 - Oct		<0.99		197.6
15 - Oct		3.4		215.5
	<1.13		56.6	
22 - Oct	<1.07		7.5	
		<25.22		<25.22
28 - Oct		<1.15		17.3
	<1.44		43.2	
5 - Nov		<1.06		6.4
	<1.33		2.7	
11 - Dec		<1.34		1.3
	<1.38		2.8	

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

December 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		
Microbiologicals																		
Microcystin				0				0	<0.2	<0.2	<0.2	4	<0.2	<0.2	<0.2	4	1.5	
Physical																		
Colour (TCU)	1.0	0.6	1.8	30	0.8	<0.5	1.3	31	0.9	<0.5	1.9	360	0.9	<0.5	1.8	365	(15)	10
Conductivity (uS/cm)	392	374	415	4	385	365	421	5	393	342	439	52	399	351	453	53		<1
FPA-Intensity (N/A)	0.90	0.75	1.00	3	0.85	0.56	1.12	3	1.07	0.31	1.88	61	0.97	0.50	2.12	61		
pH (N/A)	8.1	8.0	8.3	30	8.0	7.7	8.3	31	8.0	7.7	8.3	361	7.9	7.5	8.3	365	(7.0 - 10.5)	7.3-8.3
Total Dissolved Solids (mg/L)	220	220	220	1	237	237	237	1	227	195	252	12	230	213	250	12	(500)	
Turbidity (NTU)	0.06	0.04	0.08	30	0.07	0.05	0.09	31	<0.05	<0.04	0.09	360	0.06	<0.04	0.22	365		0.3
Primary Inorganics (mg/L)																		
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	12	<0.0004	<0.0002	<0.0005	12	0.006	
Arsenic	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	12	<0.0002	<0.0002	0.0003	12	0.01	
Barium	0.08	0.08	0.08	1	0.077	0.077	0.077	1	0.06	0.05	0.08	12	0.062	0.049	0.077	12	2	
Boron	0.010	0.010	0.010	1	0.010	0.010	0.010	1	0.010	0.008	0.012	12	0.010	0.007	0.012	12	2	
Bromate, dissolved	<0.003	<0.003	<0.005	5	<0.003	<0.003	<0.005	5	<0.005	<0.003	<0.005	53	<0.005	<0.003	<0.005	53	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	<0.0002	<0.0002	<0.0002	12	0.007	
Chlorate Dissolved	0.21	0.20	0.23	5	<0.10	<0.10	0.12	5	0.23	0.18	0.33	53	0.11	<0.05	0.23	53	1	
Chlorite Dissolved	<0.161	<0.005	<0.200	5	<0.161	<0.005	<0.200	5	<0.034	<0.005	<0.200	53	<0.034	<0.005	<0.200	53	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	<0.0002	<0.0002	<0.0002	12	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	12	<0.003	<0.002	<0.005	12	2 (1)	
Fluoride	0.69	0.63	0.76	30	0.67	0.64	0.73	31	0.69	0.61	0.76	360	0.69	0.62	0.79	365	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	12	<0.0002	<0.0002	<0.0002	12	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	12	<0.002	<0.002	<0.002	12	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	16	<0.0002	<0.00002	<0.0002	16	0.001	
Nitrate (as N) Dissolved	0.08	0.08	0.08	1	0.08	0.08	0.08	1	0.05	<0.01	0.17	49	0.05	<0.01	0.17	49	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	0.010	0.010	0.010	1	<0.010	<0.005	0.020	49	<0.010	<0.005	0.020	49	1	
Selenium	0.0004	0.0004	0.0004	1	0.0004	0.0004	0.0004	1	0.0003	0.0002	0.0004	12	0.0003	0.0002	0.0004	12	0.05	
Total Chlorine	2.13	1.88	2.27	30	2.10	1.84	2.23	31	2.18	1.88	2.40	360	2.13	1.84	2.35	365	>1.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	12	<0.0005	<0.0005	0.0006	12	0.02	

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

December 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)																		
2,4-D				0				0	<0.11	<0.05	<0.25	4	<0.15	<0.05	<0.25	4	100	
Atrazine				0				0	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4	5	
Benzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	0.6	360	<0.5	<0.5	<0.5	365	5	
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	0.04	
Bromoxynil				0				0	<0.11	<0.05	<0.25	4	<0.15	<0.05	<0.25	4	5	
Carbon tetrachloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365	2	
Chlorobenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	80 (30)	
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4	90	
Cyanazine				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4		
Diazinon				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4		
Dicamba				0				0	<0.2	<0.1	<0.5	4	<0.3	<0.1	<0.5	4	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	359	<0.5	<0.5	<0.5	364	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	360	<0.5	<0.5	<3.0	365	14	
Dichlorophenol (2,4)				0				0	<0.2	<0.2	<0.3	4	<0.2	<0.2	<0.3	4		
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4		
Dimethoate				0				0	<0.04	<0.00	<0.05	5	<0.04	<0.00	<0.05	5	20	
Dimethoate and Omethoate (as Dimethoate)				0				0	<0.158	<0.000	<0.211	4	<0.158	<0.000	<0.211	4	20	
Diuron				0				0	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4		
Ethylbenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	140 (1.6)	
Glyphosate				0				0	<0.3	<0.2	<0.5	4	<0.3	<0.2	<0.5	4	280	
Haloacetic Acids, (HAA5)	19.8	19.8	19.8	1	20.80	20.80	20.80	1	22.1	10.8	47.1	12	20.96	9.71	42.30	12	80	40
Malathion				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4	190	
MCPA				0				0	<0.11	<0.05	<0.25	4	<0.15	<0.05	<0.25	4	100	
Methylene Chloride	<0.8	<0.5	<1.0	30	<0.8	<0.5	<1.0	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365		
Metolachlor				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4		
Metribuzin				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4	80	
NDMA	<0.0018	<0.0018	<0.0018	1	<0.0026	<0.0026	<0.0026	1	<0.0024	<0.0009	<0.0060	12	<0.0021	<0.0009	<0.0060	12	0.040	10
NTA (mg/L)				0				0	<0.4	<0.4	<0.4	4	<0.4	<0.4	<0.4	4	0.4	
Paraquat				0				0	<1	<1	<1	1	<1	<1	<1	1	0.07	
Paraquat (as dichloride)				0				0	<1	<1	<1	3	<1	<1	<1	3		
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	4	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4	0.6	
Perfluorooctanoic acid (PFOA)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4	0.0002	
Phorate				0				0	<3.31	<0.25	<12.50	4	<0.25	<0.25	<0.25	4		
Picloram				0				0	<0.2	<0.1	<0.5	4	<0.3	<0.1	<0.5	4		
Simazine				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4		

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

December 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)																		
Terbufos				0				0	<6.6	<0.5	<25.0	4	<0.5	<0.5	<0.5	4		
Tetrachloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	10	
Toluene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	1.6	360	<0.5	<0.5	3.3	365	60 (24)	
Total Xylenes	<0.7	<0.5	<1.0	30	<0.7	<0.5	<1.0	31	<1.0	<0.5	<2.5	360	<1.0	<0.5	<2.5	365	90	
Trichloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	5	
Trifluralin				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4		
Trihalomethanes	15.2	9.9	23.5	30	13.5	7.9	19.0	31	18.7	6.6	39.9	360	17.5	5.1	39.5	365	100	50
Vinyl chloride	<0.7	<0.5	<1.0	30	<0.7	<0.5	<1.0	31	<1.0	<0.5	<1.0	359	<1.0	<0.5	<1.0	364	2	
Radionuclides (Bq/L)																		
Cesium-137				0				0	<0.2	<0.2	<0.2	2	<0.2	<0.2	<0.2	2	10	
Gross Alpha				0				0	<0.11	<0.10	<0.12	2	<0.13	<0.10	<0.15	2	(0.5)	
Gross Beta				0				0	<0.08	<0.07	0.09	2	<0.06	<0.05	<0.07	2	(1.0)	
Iodine-131				0				0	<0.4	<0.4	<0.4	2	<0.6	<0.4	<0.7	2	6	
Lead-210				0				0	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	2	0.2	
Radium-226				0				0	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	2	0.5	
Strontium-90				0				0	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2	5	
Tritium				0				0	<40	<40	<40	2	<40	<40	<40	2	7000	

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

December 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)	124	117	135	30	122	115	133	31	118	99	143	360	118	8	140	365		
Aluminum	0.086	0.086	0.086	1	0.081	0.081	0.081	1	0.071	0.023	0.125	12	0.066	0.026	0.122	12	2.9	0.1/0.2
Ammonia as NH3	0.11	0.08	0.17	13	0.11	0.08	0.14	13	0.12	0.08	0.18	128	0.12	0.08	0.18	130		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	<0.0002	<0.0002	<0.0002	12		
Bromide Dissolved	<0.05	<0.03	<0.05	5	<0.05	<0.03	<0.05	5	<0.03	<0.01	<0.05	53	<0.03	<0.01	<0.05	53		
Calcium	51.7	51.7	51.7	1	52.3	52.3	52.3	1	47.5	43.7	51.7	12	47.5	44.2	52.3	12		
Calcium Hardness Calculated				0				0	116	109	125	7	116	110	124	7		
Chloride Dissolved	5.91	4.61	8.48	5	5.52	4.91	6.19	5	5.90	3.89	11.40	53	6.67	4.61	12.10	53	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	<0.0002	<0.0002	<0.0002	12		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	12	<0.07	<0.07	<0.07	12		
Hardness, Ca (mg CaCO3/L)	119	112	132	30	119	112	131	31	117	98	141	353	116	96	138	358		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	0.005	12	<0.005	<0.005	<0.005	12	(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	12	<0.001	<0.001	<0.001	12		
Lithium	0.0040	0.0040	0.0040	1	0.004	0.004	0.004	1	0.0038	0.0031	0.0043	12	0.003	0.003	0.004	12		
Magnesium	15.1	15.1	15.1	1	15.1	15.1	15.1	1	13.9	12.6	15.1	12	13.9	12.6	15.1	12		
Molybdenum	0.0009	0.0009	0.0009	1	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0010	12	0.0008	0.0006	0.0009	12		
Nickel	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	12	<0.0005	<0.0005	0.0006	12		
Ortho Phosphate (as P)	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	24	<0.02	<0.02	<0.02	22		
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	12	<0.02	<0.02	<0.02	12		
Potassium	0.9	0.9	0.9	1	0.9	0.9	0.9	1	0.8	0.7	1.1	12	0.8	0.6	1.0	12		
Silicon	2.21	2.21	2.21	1	2.20	2.20	2.20	1	1.95	1.44	2.27	12	1.94	1.44	2.27	12		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	<0.0002	<0.0002	<0.0002	12		
Sodium	8.0	8.0	8.0	1	8.2	8.2	8.2	1	9.7	6.8	16.1	12	11.9	6.7	18.9	12	(200)	
Strontium	0.467	0.467	0.467	1	0.455	0.455	0.455	1	0.445	0.385	0.488	12	0.441	0.408	0.478	12	7.0	
Sulphate Dissolved	62.1	59.3	69.8	5	63.1	59.7	73.0	5	70.2	59.3	86.8	53	72.5	59.7	95.1	53	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	12	<0.0003	<0.0002	<0.0005	12		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	12	<0.0005	<0.0005	<0.0005	12		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	12	<0.0005	<0.0005	<0.0005	12		
Total Hardness (mg/L CaCO3)	181	171	198	30	180	169	196	31	178	149	218	353	177	145	211	358		
Total Hardness Calculated				0				0	173	162	182	7	172	162	180	7		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	12	<0.0005	<0.0005	<0.0005	12		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	12	<0.005	<0.005	<0.005	12	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	12	<0.001	<0.001	<0.001	12		

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

December 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)																		
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35		
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
8:2 Fluorotelomer sulfonic acid(8:2 FTS)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
Aldicarb				0				0	<0.3	<0.1	<1.0	4	<0.1	<0.1	<0.1	4		
Aldrin				0				0	<0.008	<0.008	<0.008	4	<0.008	<0.008	<0.008	4		
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4		
Bromochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	12	<1	<1	<1	12		
Bromodichloromethane	0.7	<0.5	1.1	30	0.6	<0.5	0.9	31	1.1	<0.5	2.6	360	1.0	<0.5	2.4	365		16
Bromoform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365		
Bromomethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35		
Carbaryl				0				0	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4		
Carbofuran				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4		
Chloroethane	<0.5	<0.5	<0.5	16	<0.52	<0.50	0.84	16	<0.5	<0.5	<0.5	33	<0.51	<0.50	0.84	35		
Chloroform	14.4	8.60	23.5	30	12.9	7.40	18.2	31	17.4	5.70	38.7	360	16.4	4.30	37.7	365		
Chloromethane	<5	<5	<5	16	<5	<5	<5	16	<5	<5	<5	33	<5	<5	<5	35		
Dibromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	12	<1	<1	<1	12		
Dibromochloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dichloroacetic acid	9.3	9.3	9.3	1	9.75	9.75	9.75	1	10.7	4.7	21.1	12	10.48	4.69	19.80	12		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	0.6	365		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dieldrin				0				0	<0.008	<0.008	<0.008	4	<0.008	<0.008	<0.008	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	0.5	354	<0.5	<0.5	<0.5	358	(15)	
MIBK	<11	<1	<20	30	<11	<1	<20	31	<3	<1	<20	360	<3	<1	<20	365		
Monobromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	12	<1	<1	<1	12		
Monochloroacetic acid	<1.00	<1.00	<1.00	1	<1.00	<1.00	<1.00	1	<1.06	<1.00	1.58	12	<1.08	<1.00	1.68	12		
Parathion				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4		
Perfluorobutane sulfonic acid (PFBS)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
Perfluorobutanoic acid [PFBA]				0				0	<0.04	<0.02	<0.10	4	<0.04	<0.02	<0.10	4		
Perfluoroheptanoic acid [PFHpA]				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
Perfluorohexanesulfonic acid [PFHxS]				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
Perfluorohexanoic acid [PFHxA]				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
Perfluorononanoic acid [PFNA]				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
Perfluoropentanoic acid (PFPeA)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4		
Prometryn				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4		
Styrene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		

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

December 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)																		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365		
Total Organic Carbon	1.1	<0.5	1.9	5	1.0	0.7	1.5	5	1.5	<0.5	2.8	53	1.4	0.7	2.5	53		
Total Volatile Organics (NonTHM)	<1.2	<1.0	1.9	14	<1	<1	2	15	2.3	<1.0	6.1	327	2	<1	6	330		
Total Volatile Organics (Unknown)				0				0	1.3	<0.5	7.7	41	1.3	<0.5	3.6	43		
Triallate				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4		
Trichloroacetic acid	10.50	10.50	10.50	1	11.00	11.00	11.00	1	11.08	6.06	24.40	12	10.24	5.02	20.80	12		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Xylene (1,2)	<0.4	<0.3	<0.5	30	<0.4	<0.3	<0.5	31	<0.5	<0.3	<0.5	360	<0.5	<0.3	<0.5	365		
Xylene (1,4)	<0.4	<0.4	<0.5	30	<0.4	<0.4	<0.5	31	<0.5	<0.4	0.6	360	<0.5	<0.4	0.9	365		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01

*** 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

December 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)	0.06	0.04	0.10	30	0.06	0.04	0.11	31	0.09	<0.04	12.90	362	0.05	<0.04	0.39	365		0.3
UV 254 %T ****	<95.6	<92.4	<96.6	30	<95.8	<93.2	<96.5	31	<94.6	<90.1	<96.9	359	<94.6	<90.7	<98.9	365		
Primary Inorganics (mg/L)																		
Bromate, dissolved	<0.003	<0.003	<0.005	5	<0.003	<0.003	<0.005	5	<0.005	<0.003	<0.005	53	<0.005	<0.003	<0.005	53	0.01	
Chlorate Dissolved	0.18	0.10	0.21	5	<0.11	<0.10	0.14	5	0.23	0.10	0.34	53	0.11	<0.05	0.20	53	1	
Chlorite Dissolved	<0.161	<0.005	<0.200	5	<0.161	<0.005	<0.200	5	<0.034	<0.005	<0.200	53	<0.034	<0.005	<0.200	53	1	
Nitrate (as N) Dissolved	0.08	0.08	0.08	1	0.08	0.08	0.08	1	0.05	<0.01	0.17	49	0.05	<0.01	0.16	49	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	<0.010	<0.010	<0.010	1	<0.010	<0.005	0.020	49	<0.010	<0.005	0.020	49	1	
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	5	
Carbon tetrachloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365	2	
Chlorobenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	359	<0.5	<0.5	<0.5	364	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	360	<0.5	<0.5	<3.0	365	14	
Ethylbenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	140 (1.6)	
Methylene Chloride	<0.8	<0.5	<1.0	30	<0.8	<0.5	<1.0	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365		
Tetrachloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365	10	
Toluene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	4.1	360	<0.5	<0.5	1.8	365	60 (24)	
Total Xylenes	<0.7	<0.5	<1.0	30	<0.7	<0.5	<1.0	31	<1.0	<0.5	<2.5	360	<1.0	<0.5	<2.5	365	90	
Trichloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	0.5	365	5	
Trihalomethanes	13.7	7.8	19.2	30	11.9	6.7	17.8	31	15.9	5.3	38.4	360	14.1	3.7	33.7	365	100	50
Vinyl chloride	<0.7	<0.5	<1.0	30	<0.7	<0.5	<1.0	31	<1.0	<0.5	<1.0	359	<1.0	<0.5	<1.0	364	2	
Secondary Inorganics (mg/L)																		
Ammonia as NH3	0.11	0.09	0.14	13	0.11	0.06	0.14	13	0.12	0.08	0.18	128	0.12	0.06	0.17	130		
Bromide Dissolved	<0.05	<0.03	<0.05	5	<0.05	<0.03	<0.05	5	<0.03	<0.01	<0.05	53	<0.03	<0.01	<0.05	53		
Chloride Dissolved	5.40	4.67	6.28	5	5.5	4.9	6.1	5	6.05	3.91	19.90	53	6.7	4.5	12.9	53	(250)	
Sulphate Dissolved	62.1	59.1	70.4	5	63.2	59.4	73.4	5	70.5	59.0	95.8	53	72.4	59.4	95.3	53	(500)	

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

December 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)																		
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35		
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35		
Bromodichloromethane	0.7	<0.5	1.0	30	<0.6	<0.5	0.9	31	0.9	<0.5	2.3	360	0.8	<0.5	2.1	365		16
Bromoform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365		
Bromomethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35		
Chloroethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35		
Chloroform	13.0	7.20	18.5	30	11.5	6.10	17.3	31	14.7	4.60	37.4	360	13.1	3.00	33.2	365		
Chloromethane	<5	<5	<5	16	<5	<5	<5	16	<5	<5	<5	33	<5	<5	<5	35		
Dibromochloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	0.5	360	<0.5	<0.5	<0.5	365		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	0.5	360	<0.5	<0.5	<0.5	365		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	354	<0.5	<0.5	<0.5	357	(15)	
MIBK	<11	<1	<20	30	<11	<1	<20	31	<3	<1	<20	360	<3	<1	<20	365		
Styrene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365		
Total Volatile Organics (NonTHM)	<1.2	<1.0	1.8	14	<1.3	<1.0	2.4	15	2.2	<1.0	6.5	327	2.2	<1.0	6.7	330		
Total Volatile Organics (Unknown)				0				0	1.1	<0.5	2.4	38	1.1	<0.5	2.8	42		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365		
Xylene (1,2)	<0.4	<0.3	<0.5	30	<0.4	<0.3	<0.5	31	<0.5	<0.3	<0.5	360	<0.5	<0.3	<0.5	365		
Xylene (1,4)	<0.4	<0.4	<0.5	30	<0.4	<0.4	<0.5	31	<0.5	<0.4	1.3	360	<0.5	<0.4	0.6	365		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

*** 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)

December 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Microbiological										
Microcystin				0	<0.2	<0.2	<0.2	6	1.5	
Physical										
Colour (TCU)				0	0.8	0.6	1.1	4	(15)	10
pH (N/A)	8.0	8.0	8.1	2	7.8	7.6	8.1	316	(7.0 - 10.5)	7.3 - 8.3
Total Dissolved Solids (mg/L)				0	234	213	261	4	(500)	
Turbidity (NTU)	0.21	0.08	1.54	143	0.25	<0.04	5.03	1625		1.0
UV 254 %T				0	<92.8	<90.1	<94.7	4		
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	5	0.01	
Barium				0	0.062	0.057	0.074	5	2	
Boron				0	0.010	0.009	0.011	5	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	21	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.18	<0.08	0.30	21	1	
Chlorite Dissolved				0	<0.033	<0.005	<0.200	21	1	
Chromium				0	0.0002	<0.0002	0.0003	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.68	0.65	0.74	4	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	9	0.001	
Nitrate (as N) Dissolved	0.08	0.08	0.08	2	0.04	<0.01	0.18	337	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	2	<0.009	<0.005	0.040	337	1	
Selenium				0	0.0003	<0.0002	0.0003	5	0.05	
Strontium				0	0.451	0.438	0.466	5	7.0	
Total Chlorine	1.95	1.04	2.28	143	1.88	0.09	2.44	1624	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	5	0.02	

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

December 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Primary Organics (ug/L) **										
2,4-D				0	<0.15	<0.05	<0.25	4	100	
Atrazine				0	<0.05	<0.05	<0.05	4	5	
Atrazine + N-dealkylated metabolites				0	<0.1	<0.1	<0.1	4	0.005	
Azinphos-methyl				0	<0.1	<0.1	<0.1	4	0.02	
Benzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	5	
Benzo(a)pyrene				0	<0.005	<0.005	<0.005	4	0.04	
Bromoxynil				0	<0.15	<0.05	<0.25	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	2	
Chlorobenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	80 (30)	
Chlorpyrifos				0	<0.1	<0.1	<0.1	4	90	
Cyanazine				0	<0.1	<0.1	<0.1	4		
Diazinon				0	<0.025	<0.025	<0.025	4		
Dicamba				0	<0.3	<0.1	<0.5	4	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	14	
Dichlorophenol (2,4)				0	<0.2	<0.2	<0.3	4		
Diclofop-methyl				0	<0.1	<0.1	<0.1	4		
Dimethoate				0	<0.05	<0.05	<0.05	4	20	
Diquat				0	<1	<1	<1	4	0.05	
Diuron				0	<0.05	<0.05	<0.05	4		
Ethylbenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	140 (1.6)	
Glyphosate				0	<0.3	<0.2	<0.5	4	280	
Haloacetic Acids, total (HAA5)	17.4	16.0	20.1	6	20.8	10.3	49.6	72	80	40 (single result)
Malathion				0	<0.025	<0.025	<0.025	4	190	
MCPA				0	<0.15	<0.05	<0.25	4	100	
Methylene Chloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<1.0	74	50	
Metolachlor				0	<0.025	<0.025	<0.025	4		
Metribuzin				0	<0.1	<0.1	<0.1	4	80	
NDMA (µg/L)	<0.00260	<0.00220	<0.00280	3	<0.00310	<0.00100	0.00690	36	0.040	10
Nitrilotriacetic acid				0	<0.4	<0.4	<0.4	4	0.4	
Paraquat				0	<1	<1	<1	1	0.07	
Paraquat (as dichloride)				0	<1	<1	<1	3	0.07	
Pentachlorophenol				0	<0.6	<0.5	<1.0	4	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0	<0.007	<0.002	<0.020	4	0.0006	
Perfluorooctanoic acid (PFOA)				0	<0.007	<0.002	<0.020	4	0.0002	
Phorate				0	<0.25	<0.25	<0.25	4		
Picloram				0	<0.3	<0.1	<0.5	4		

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

December 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Primary Organics (ug/L) **										
Simazine				0	<0.1	<0.1	<0.1	4		
Terbufos				0	<0.5	<0.5	<0.5	4		
Tetrachloroethylene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	10	
Tetrachlorophenol (2,3,4,6)				0	<0.5	<0.5	<0.5	4	100 (1)	
Toluene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	6	<1.0	<0.5	<1.0	74	90	
Trichloroethylene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74	5	
Trichlorophenol (2,4,6)				0	<0.3	<0.2	<0.5	4	5 (2)	
Trifluralin				0	<0.1	<0.1	<0.1	4		
Vinyl Chloride	<1.0	<1.0	<1.0	6	<1.0	<0.5	<1.0	74	2	

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

December 2024

	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				0	117	112	121	4		
Alkalinity, PHP (mg CaCO3/L)				0	<3	<3	<3	4		
Aluminum				0	0.047	0.014	0.093	5	2.9	0.1/0.2
Ammonia as N	0.13	0.12	0.13	2	0.15	0.09	0.24	28		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.03	<0.01	<0.05	21		
Calcium				0	48.3	46.5	51.8	5		
Chloride Dissolved				0	6.56	4.87	8.73	21	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Free Chlorine				0	<0.07	<0.07	<0.07	4		
Iron				0	0.008	<0.005	0.013	5	(0.3)	0.3
Lanthanum				0	<0.001	<0.001	<0.001	5		
Lithium				0	0.0038	0.0034	0.0042	5		
Magnesium				0	14.1	13.4	15.3	5		
Molybdenum				0	0.0008	0.0006	0.0010	5		
Nickel				0	0.0006	<0.0005	0.0010	5		
Ortho Phosphate (as P)	0.90	0.84	1.04	56	0.88	0.24	1.32	455		
Phosphorus				0	0.98	0.91	1.05	5		
Potassium				0	0.8	0.7	0.9	5		
Silicon				0	2.03	1.68	2.59	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	10.3	6.9	13.5	5	(200)	
Sulphate Dissolved				0	71.1	59.0	82.4	21	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	178	171	183	4		
Total Kjeldahl Nitrogen				0	0.4	0.4	0.5	4		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	0.011	<0.005	0.037	5	(5.0)	
Zirconium				0	<0.001	<0.001	<0.001	5		

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

December 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
1,1,1-Trichloroethane				0	<0.5	<0.5	<0.5	7		
1,1,2,2-Tetrachloroethane				0	<0.5	<0.5	<0.5	7		
1,2-Dichloroethylene, cis				0	<0.5	<0.5	<0.5	7		
1,2-Dichloroethylene, trans				0	<0.5	<0.5	<0.5	7		
1,2-Dichloropropane				0	<0.5	<0.5	<0.5	7		
1,3-Dichlorobenzene				0	<0.5	<0.5	<0.5	7		
2,4,5-T				0	<0.15	<0.05	<0.25	4		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)				0	<0.007	<0.002	<0.020	4		
8:2 Fluorotelomer sulfonic acid(8:2 FTS)				0	<0.007	<0.002	<0.020	4		
a-chlordane				0	<0.008	<0.008	<0.008	4		
Alachlor				0	<0.05	<0.05	<0.05	4		
Aldicarb				0	<0.1	<0.1	<0.1	4		
Aldrin				0	<0.008	<0.008	<0.008	4		
Ametryn				0	<0.025	<0.025	<0.025	4		
Atrazine Desethyl				0	<0.025	<0.025	<0.025	4		
Bendiocarb				0	<0.025	<0.025	<0.025	4		
Bromochloroacetic acid	<1	<1	<1	6	<1	<1	<1	72		
Bromodichloromethane	0.9	0.7	1.2	6	1.1	<0.5	2.1	74		16
Bromoform	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74		
Carbaryl				0	<0.05	<0.05	<0.05	4		
Carbofuran				0	<0.025	<0.025	<0.025	4		
Chloroform	15.7	14.2	17.1	6	20.0	7.6	39.1	74		
Dibromoacetic acid	<1	<1	<1	6	<1	<1	<1	72		
Dibromochloromethane	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74		
Dichloroacetic acid	8.54	7.97	9.52	6	10.45	4.89	23.50	72		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	67		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	67		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	67		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	67		
Dieldrin				0	<0.008	<0.008	<0.008	4		
Dinoseb				0	<0.15	<0.05	<0.25	4		
gamma-hexachlorocyclohexane				0	<0.008	<0.008	<0.008	4		
g-chlordane				0	<0.008	<0.008	<0.008	4		
Heptachlor				0	<0.008	<0.008	<0.008	4		
Heptachlor Epoxide				0	<0.008	<0.008	<0.008	4		
Methoxychlor				0	<0.008	<0.008	<0.008	4		
Methyl Isobutyl Ketone (MIBK)				0	<20	<20	<20	7		
Methyl Parathion				0	<0.1	<0.1	<0.1	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	67	(15)	

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

December 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Methyl-tert-butyl ether (MTBE)				0	<0.5	<0.5	<0.5	1	(15)	
MIBK	<1	<1	<1	6	<1	<1	<1	67		
Monobromoacetic acid	<1	<1	<1	6	<1	<1	<1	72		
Monochloroacetic acid	<1	<1	<1	6	1	<1	2	72		
op-DDT				0	<0.004	<0.004	<0.004	4		
Oxychlordane				0	<0.008	<0.008	<0.008	4		
Parathion				0	<0.1	<0.1	<0.1	4		
Perfluorobutane sulfonic acid (PFBS)				0	<0.007	<0.002	<0.020	4		
Perfluorobutanoic acid (PFBA)				0	<0.04	<0.02	<0.10	4		
Perfluoroheptanoic acid (PFHpA)				0	<0.007	<0.002	<0.020	4		
Perfluorohexane sulfonic acid (PFHxS)				0	<0.007	<0.002	<0.020	4		
Perfluorohexanoic acid (PFHxA)				0	<0.007	<0.002	<0.020	4		
Perfluorononanoic acid (PFNA)				0	<0.007	<0.002	<0.020	4		
Perfluoropentanoic acid (PFPeA)				0	<0.007	<0.002	<0.020	4		
pp-DDD				0	<0.004	<0.004	<0.004	4		
pp-DDE				0	<0.004	<0.004	<0.004	4		
pp-DDT				0	<0.004	<0.004	<0.004	4		
Prometon				0	<0.025	<0.025	<0.025	4		
Prometryn				0	<0.025	<0.025	<0.025	4		
Propazine				0	<0.025	<0.025	<0.025	4		
Styrene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74		
Temephos				0	<0.25	<0.25	<0.25	4		
Terbutryn				0	<0.025	<0.025	<0.025	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	67		
Total Organic Carbon	1.5	1.3	1.6	2	1.8	1.0	2.7	220		
Total Volatile Organics (NonTHM)	2	1	2	6	2	<1	5	67		
Total Volatile Organics (Unknown)				0	1.0	<0.5	1.9	11		
Triallate				0	<0.1	<0.1	<0.1	4		
Trichloroacetic acid	8.83	7.90	10.60	6	10.10	5.40	24.30	72		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	74		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	67		
Trichloroethane (1,1,2)				0	<0.5	<0.5	<0.5	7		
Trichloropropane (1,2,3)				0	<0.5	<0.5	<0.5	7		
Xylene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.3	<0.5	74		
Xylene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.4	<0.5	74		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

*** 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

December 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.1	0.6	1.8	4	0.9	<0.5	1.9	140	(15)	10
pH (N/A)	7.9	7.8	8.1	4	7.8	7.6	8.1	140	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.43	0.19	0.83	4	0.44	<0.04	2.89	140		1.0
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	4	<0.0005	<0.0002	<0.0005	140	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0002	140	0.01	
Barium	0.062	0.058	0.068	4	0.062	<0.002	0.093	140	2	
Boron	0.009	0.008	0.010	4	0.011	0.007	0.036	140	2	
Cadmium	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0002	140	0.007	
Chromium	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0002	140	0.05	
Copper	0.002	<0.002	0.003	4	0.005	<0.002	0.192	140	2 (1)	
Lead	<0.0002	<0.0002	<0.0002	4	0.0002	<0.0002	0.0025	140	0.005	
Manganese	0.002	<0.002	0.003	4	0.002	<0.002	0.008	140	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0002	134	0.001	
Nitrate (as N) Dissolved				0	0.03	0.03	0.03	1	10	
Nitrite (as N) Dissolved				0	<0.01	<0.01	<0.01	1	1	
Selenium	0.0003	<0.0002	0.0004	4	0.0003	<0.0002	0.0004	140	0.05	
Strontium	0.471	0.463	0.476	4	0.445	<0.002	0.501	140	7.0	
Total Chlorine	1.96	1.75	2.11	4	1.82	0.75	2.27	140	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0005	<0.0005	0.0006	4	0.0005	<0.0005	0.0006	140	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	5	
Carbon tetrachloride	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	2	
Chlorobenzene	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	14	
Ethylbenzene	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	140 (1.6)	
Methylene Chloride	<0.6	<0.5	<1.0	4	<0.5	<0.5	<1.0	140		
Tetrachloroethylene	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	10	
Toluene	<0.5	<0.5	<0.5	4	0.6	<0.5	3.4	140	60 (24)	
Total Xylenes	<0.9	<0.5	<1.0	4	<1.0	<0.5	1.2	140	90	
Trichloroethylene	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140	5	
Vinyl chloride	<0.9	<0.5	<1.0	4	<1.0	<0.5	<1.0	140	2	

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

December 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	0.124	0.022	0.309	4	0.089	0.012	0.955	140	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0002	140		
Calcium	49.6	47.9	52.9	4	48.1	<0.1	54.3	140		
Cobalt	<0.0002	<0.0002	<0.0002	4	0.0002	<0.0002	0.0006	140		
Iron	0.022	<0.005	0.041	4	0.059	<0.005	0.497	140	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	4	<0.001	<0.001	<0.001	140		
Lithium	0.0036	0.0033	0.0040	4	0.0038	<0.0002	0.0076	140		
Magnesium	14.2	13.7	15.3	4	13.7	<0.1	16.4	140		
Molybdenum	0.0007	0.0006	0.0009	4	0.0008	0.0006	0.0011	140		
Nickel	<0.0005	<0.0005	<0.0005	4	0.0006	<0.0005	0.0028	140		
Phosphorus	1.02	0.91	1.17	4	0.99	0.33	1.62	140		
Potassium	0.8	0.7	1.0	4	0.9	0.3	2.8	140		
Silicon	2.06	1.83	2.31	4	2.05	1.63	2.69	140		
Silver	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0002	140		
Sodium	7.3	6.8	8.0	4	11.4	6.6	98.7	140	(200)	
Thallium	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0005	140		
Tin	<0.0005	<0.0005	<0.0005	4	<0.0005	<0.0005	<0.0005	140		
Titanium	<0.0005	<0.0005	<0.0005	4	<0.0005	<0.0005	<0.0005	140		
Total Hardness (mg/L CaCO3)	182	176	195	4	177	<2	201	140		
Vanadium	<0.0005	<0.0005	<0.0005	4	<0.0005	<0.0005	<0.0005	140		
Zinc	<0.005	<0.005	<0.005	4	0.005	<0.005	0.023	140	(5.0)	
Zirconium	<0.001	<0.001	<0.001	4	<0.001	<0.001	<0.001	140		

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

December 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	0.8	0.6	1.0	4	1.2	<0.5	2.1	140		16
Bromoform	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Chloroform	15.3	11.3	22.5	4	19.7	5.6	37.6	140		
Dibromochloromethane	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	138	(15)	
MIBK	<6	<1	<20	4	<2	<1	<20	140		
Styrene	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Total Volatile Organics (NonTHM)	1.1	<1.0	1.3	3	2.5	<1.0	6.9	132		
Total Volatile Organics (Unknown)				0	3.2	<0.5	13.8	17		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	140		
Trichloroethane (1,1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Trichloropropane (1,2,3)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Xylene (1,2)	<0.5	<0.3	<0.5	4	<0.5	<0.3	<0.5	140		
Xylene (1,4)	<0.5	<0.4	<0.5	4	0.5	<0.4	1.1	140		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.7 Castledowns Reservoir

December 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	1.2	0.6	2.0	5	(15)	10
Conductivity (uS/cm)				0	401	369	423	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)				0	7.8	7.6	8.1	22	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.09	0.17	5	0.13	0.06	0.46	49		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0002	5	0.01	
Barium				0	0.060	0.051	0.069	5	2	
Boron				0	0.009	0.007	0.011	5	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.119	0.050	0.143	6	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.70	0.66	0.75	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	0.003	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved				0	0.039	0.010	0.170	24	10	
Nitrite (as N) Dissolved				0	<0.009	<0.005	0.010	24	1	
Selenium				0	0.0003	0.0002	0.0004	5	0.05	
Strontium				0	0.438	0.423	0.453	5	7.0	
Total Chlorine	1.90	1.79	2.03	5	1.80	1.27	2.06	49	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	5	2	
Chlorobenzene				0	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	5	14	
Ethylbenzene				0	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	5	10	
Toluene				0	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes				0	<1	<1	<1	5	90	
Trichloroethylene				0	<0.60	<0.50	1.00	5	5	
Vinyl Chloride				0	<1.2	<1.0	2.0	5	2	

2.2.7 Castledowns Reservoir

December 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				0	117	112	122	5		
Aluminum				0	0.060	0.022	0.100	5	2.9	0.1/0.2
Ammonia as NH3				0	0.18	0.14	0.28	21		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.023	<0.010	<0.030	6		
Calcium				0	47.3	45.5	49.5	5		
Calcium Hardness				0	121	121	121	1		
Calcium Hardness Calculated				0	118	114	124	4		
Chloride Dissolved				0	7.1	5.6	8.0	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	0.020	<0.005	0.078	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0035	0.0030	0.0040	5		
Magnesium				0	13.6	13.3	14.0	5		
Molybdenum				0	0.0008	0.0006	0.0009	5		
Nickel				0	<0.0005	<0.0005	<0.0005	5		
Ortho Phosphate (as P)	0.91	0.90	0.92	8	0.89	0.84	0.94	58		
Phosphorus				0	0.97	0.87	1.02	5		
Potassium				0	0.88	0.70	1.20	5		
Silicon				0	2.03	1.59	2.36	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	12.3	7.3	17.1	5	(200)	
Sulphate Dissolved				0	72.6	61.5	80.2	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated				0	174	168	181	4		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.7 Castledowns Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	0.9	0.6	1.2	5		16
Bromoform				0	<0.6	<0.5	1.0	5		
Chloroform				0	21.3	6.9	35.6	5		
Dibromochloromethane				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)				0	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	5	(15)	
MIBK				0	<1.2	<1.0	2.0	5		
Styrene				0	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	5		
Total Organic Carbon				0	1.7	0.9	2.3	17		
Total Volatile Organics (NonTHM)				0	1.3	<1.0	1.9	5		
Total Volatile Organics (Unknown)				0	0.7	0.7	0.7	1		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	5		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	5		
Xylene (1,2)				0	<0.6	<0.5	1.0	5		
Xylene (1,4)				0	<0.6	<0.5	1.0	5		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.8 Clareview Reservoir

December 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	0.8	0.7	1.0	7	(15)	10
Conductivity (uS/cm)	404	404	404	1	396	368	421	7		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	7		
pH (N/A)	7.9	7.9	7.9	1	7.8	7.7	8.1	25	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.11	0.17	5	0.15	0.10	0.43	53		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	7	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	7	0.01	
Barium	0.063	0.063	0.063	1	0.062	0.056	0.068	7	2	
Boron	0.009	0.009	0.009	1	0.010	0.008	0.013	7	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	8	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.007	
Chlorate Dissolved	0.222	0.222	0.222	1	0.203	0.172	0.229	8	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.029	<0.005	<0.200	8	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.005	7	2 (1)	
Fluoride	0.74	0.74	0.74	1	0.69	0.65	0.74	7	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	7	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.001	
Nitrate (as N) Dissolved	0.080	0.080	0.080	1	0.046	0.010	0.180	26	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.009	<0.005	0.010	26	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	7	0.05	
Strontium	0.488	0.488	0.488	1	0.453	0.405	0.488	7	7.0	
Total Chlorine	1.91	1.84	1.96	5	1.84	1.60	2.09	53	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	7	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	7	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	7	2	

2.2.8 Clareview Reservoir

December 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	130	130	130	1	119	109	130	7		
Aluminum	0.110	0.110	0.110	1	0.073	0.023	0.173	7	2.9	0.1/0.2
Ammonia as NH3	0.15	0.15	0.15	1	0.19	0.15	0.22	23		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.028	<0.010	<0.050	8		
Calcium	50.6	50.6	50.6	1	47.7	43.7	51.3	7		
Calcium Hardness				0	124	118	130	2		
Calcium Hardness Calculated	126	126	126	1	117	109	126	5		
Chloride Dissolved	5.3	5.3	5.3	1	5.9	5.1	7.0	8	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Iron	0.019	0.019	0.019	1	0.015	0.012	0.019	7	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		
Lithium	0.0036	0.0036	0.0036	1	0.0037	0.0032	0.0043	7		
Magnesium	14.9	14.9	14.9	1	14.0	12.2	14.9	7		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0006	0.0010	7		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Ortho Phosphate (as P)	0.92	0.90	0.92	8	0.88	0.74	0.92	60		
Phosphorus	0.97	0.97	0.97	1	0.95	0.91	0.97	7		
Potassium	0.80	0.80	0.80	1	0.83	0.70	1.10	7		
Silicon	1.92	1.92	1.92	1	1.90	1.61	2.13	7		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Sodium	7.6	7.6	7.6	1	10.2	7.1	16.2	7	(200)	
Sulphate Dissolved	66.9	66.9	66.9	1	69.9	59.6	76.4	8	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0005	7		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Total Hardness (mg/L CaCO3)				0	188	177	198	2		
Total Hardness Calculated	188	188	188	1	174	160	188	5		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		

2.2.8 Clareview Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.5	1.5	1.5	1	1.5	0.9	2.2	7		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Chloroform	18.8	18.8	18.8	1	21.9	13.9	34.8	7		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	7		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Total Organic Carbon	1.3	1.3	1.3	1	1.7	1.1	2.5	20		
Total Volatile Organics (NonTHM)	1.4	1.4	1.4	1	2.4	<1.0	4.4	7		
Total Volatile Organics (Unknown)				0	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.9 Discovery Park Reservoir

December 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	0.7	<0.5	1.0	8	(15)	10
Conductivity (uS/cm)	400	400	400	1	395	367	420	8		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	8		
pH (N/A)	7.9	7.9	7.9	1	7.9	7.8	8.1	26	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.19	0.13	0.29	5	0.15	0.06	1.09	55		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	8	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	8	0.01	
Barium	0.061	0.061	0.061	1	0.062	0.054	0.069	8	2	
Boron	0.009	0.009	0.009	1	0.010	0.008	0.012	8	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	8	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	0.007	
Chlorate Dissolved	0.105	0.105	0.105	1	0.120	<0.090	0.163	8	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.029	<0.005	<0.200	8	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.005	8	2 (1)	
Fluoride	0.72	0.72	0.72	1	0.69	0.65	0.77	8	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	8	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	0.001	
Nitrate (as N) Dissolved	0.070	0.070	0.070	1	0.047	0.020	0.190	27	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.009	<0.005	0.010	27	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	8	0.05	
Strontium	0.479	0.479	0.479	1	0.446	0.410	0.479	8	7.0	
Total Chlorine	1.66	1.55	1.76	5	1.42	1.03	1.87	55	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	8	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	8	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	8	2	

2.2.9 Discovery Park Reservoir

December 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	125	125	125	1	118	111	126	8		
Aluminum	0.122	0.122	0.122	1	0.086	0.021	0.200	8	2.9	0.1/0.2
Ammonia as NH3	0.16	0.16	0.16	1	0.22	<0.05	0.31	25		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.028	<0.010	<0.050	8		
Calcium	50.3	50.3	50.3	1	46.5	43.9	50.3	8		
Calcium Hardness				0	119	113	124	2		
Calcium Hardness Calculated	126	126	126	1	117	110	126	6		
Chloride Dissolved	5.5	5.5	5.5	1	6.8	5.5	8.4	8	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8		
Iron	0.006	0.006	0.006	1	<0.006	<0.005	0.008	8	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	8		
Lithium	0.0037	0.0037	0.0037	1	0.0034	0.0030	0.0041	8		
Magnesium	14.5	14.5	14.5	1	13.7	12.7	14.5	8		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0006	0.0009	8		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0006	8		
Ortho Phosphate (as P)	0.91	0.76	1.00	8	0.91	0.76	1.04	60		
Phosphorus	1.02	1.02	1.02	1	0.99	0.91	1.02	8		
Potassium	0.70	0.70	0.70	1	0.84	0.70	1.00	8		
Silicon	2.02	2.02	2.02	1	1.89	1.57	2.21	8		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8		
Sodium	7.4	7.4	7.4	1	11.9	7.4	19.4	8	(200)	
Sulphate Dissolved	67.3	67.3	67.3	1	71.7	58.6	81.0	8	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0005	8		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	8		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	8		
Total Hardness (mg/L CaCO3)				0	178	174	182	2		
Total Hardness Calculated	185	185	185	1	173	162	185	6		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	8		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	8	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	8		

2.2.9 Discovery Park Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	0.9	0.9	0.9	1	1.2	0.7	1.8	8		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Chloroform	16.3	16.3	16.3	1	21.9	11.7	37.8	8		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	8		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Total Organic Carbon	1.3	1.3	1.3	1	1.7	0.7	2.4	21		
Total Volatile Organics (NonTHM)	1.6	1.6	1.6	1	2.5	<1.0	4.2	8		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.10 Kaskitayo Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.3	1.3	1.3	1	1.1	0.5	1.6	6	(15)	10
Conductivity (uS/cm)	408	408	408	1	401	370	426	6		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	6		
pH (N/A)	7.8	7.8	7.8	1	7.7	7.6	7.9	26	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.11	0.15	5	0.11	0.04	0.39	53		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	6	0.006	
Arsenic	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	6	0.01	
Barium	0.071	0.071	0.071	1	0.063	0.056	0.071	6	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.010	6	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	6	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	0.007	
Chlorate Dissolved	0.090	0.090	0.090	1	<0.101	<0.080	0.126	6	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.038	<0.005	<0.200	6	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	6	2 (1)	
Fluoride	0.73	0.73	0.73	1	0.70	0.65	0.74	6	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	6	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	0.001	
Nitrate (as N) Dissolved	0.080	0.080	0.080	1	0.038	<0.010	0.170	27	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.009	<0.005	0.010	27	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	6	0.05	
Strontium	0.483	0.483	0.483	1	0.450	0.385	0.483	6	7.0	
Total Chlorine	2.04	1.94	2.09	5	1.96	1.18	2.23	53	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	6	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	6	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	6	2	

2.2.10 Kaskitayo Reservoir

December 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	129	129	129	1	122	112	129	6		
Aluminum	0.096	0.096	0.096	1	0.060	0.022	0.097	6	2.9	0.1/0.2
Ammonia as NH3	0.13	0.13	0.13	1	0.17	0.11	0.20	25		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.027	<0.010	<0.050	6		
Calcium	51.0	51.0	51.0	1	47.8	43.3	51.2	6		
Calcium Hardness				0	124	118	129	2		
Calcium Hardness Calculated	127	127	127	1	117	108	127	4		
Chloride Dissolved	6.4	6.4	6.4	1	6.8	5.6	8.2	6	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	6	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	6		
Lithium	0.0037	0.0037	0.0037	1	0.0033	0.0029	0.0037	6		
Magnesium	14.9	14.9	14.9	1	13.9	11.8	15.1	6		
Molybdenum	0.0008	0.0008	0.0008	1	0.0007	0.0006	0.0009	6		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6		
Ortho Phosphate (as P)	0.94	0.92	0.94	8	0.91	0.76	1.02	60		
Phosphorus	1.00	1.00	1.00	1	0.95	0.87	1.00	6		
Potassium	0.80	0.80	0.80	1	0.83	0.70	1.10	6		
Silicon	2.02	2.02	2.02	1	1.95	1.53	2.16	6		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6		
Sodium	8.1	8.1	8.1	1	12.1	7.3	22.0	6	(200)	
Sulphate Dissolved	69.7	69.7	69.7	1	72.2	60.7	79.6	6	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	6		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6		
Total Hardness (mg/L CaCO3)				0	184	178	190	2		
Total Hardness Calculated	189	189	189	1	173	157	189	4		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	6	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	6		

2.2.10 Kaskitayo Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.3	1.3	1.3	1	1.2	0.7	1.8	6		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Chloroform	16.9	16.9	16.9	1	18.8	9.8	31.6	6		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	6		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	6		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Total Organic Carbon	1.4	1.4	1.4	1	1.8	1.2	2.6	20		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	2.3	<1.0	4.3	6		
Total Volatile Organics (Unknown)				0	1.1	1.1	1.1	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.11 Londonderry Reservoir

December 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	1.0	0.7	1.2	5	(15)	10
Conductivity (uS/cm)				0	390	369	405	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)				0	7.8	7.7	8.1	24	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.10	0.27	5	0.13	0.06	0.52	53		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0002	5	0.01	
Barium				0	0.059	0.052	0.068	5	2	
Boron				0	0.010	0.007	0.012	5	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.216	0.188	0.238	6	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.69	0.66	0.73	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved				0	0.043	0.010	0.180	26	10	
Nitrite (as N) Dissolved				0	<0.009	<0.005	0.010	26	1	
Selenium				0	0.0002	0.0002	0.0003	5	0.05	
Strontium				0	0.437	0.412	0.459	5	7.0	
Total Chlorine	2.03	1.92	2.12	5	1.92	1.63	2.25	53	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	5	2	
Chlorobenzene				0	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	5	14	
Ethylbenzene				0	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	5	10	
Toluene				0	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes				0	<1	<1	<1	5	90	
Trichloroethylene				0	<0.60	<0.50	1.00	5	5	
Vinyl Chloride				0	<1.2	<1.0	2.0	5	2	

2.2.11 Londonderry Reservoir

December 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				0	115	110	121	5		
Aluminum				0	0.063	0.018	0.120	5	2.9	0.1/0.2
Ammonia as NH3				0	0.18	0.14	0.22	23		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.023	<0.010	<0.030	6		
Calcium				0	47.1	44.6	49.5	5		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	116	111	124	4		
Chloride Dissolved				0	6.1	4.9	7.2	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0038	0.0031	0.0043	5		
Magnesium				0	13.8	13.3	14.3	5		
Molybdenum				0	0.0008	0.0006	0.0010	5		
Nickel				0	<0.0005	<0.0005	<0.0005	5		
Ortho Phosphate (as P)	0.91	0.90	0.92	8	0.89	0.86	0.94	60		
Phosphorus				0	0.97	0.89	1.03	5		
Potassium				0	0.88	0.60	1.40	5		
Silicon				0	2.05	1.56	2.35	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	10.3	7.0	13.0	5	(200)	
Sulphate Dissolved				0	71.4	60.4	74.6	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated				0	172	166	182	4		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.11 Londonderry Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.1	0.7	1.4	5		16
Bromoform				0	<0.6	<0.5	1.0	5		
Chloroform				0	21.3	8.5	34.3	5		
Dibromochloromethane				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)				0	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	5	(15)	
MIBK				0	<1.2	<1.0	2.0	5		
Styrene				0	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	5		
Total Organic Carbon				0	1.7	1.0	2.5	19		
Total Volatile Organics (NonTHM)				0	1.5	<1.0	2.4	5		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	5		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	5		
Xylene (1,2)				0	<0.6	<0.5	1.0	5		
Xylene (1,4)				0	<0.6	<0.5	1.0	5		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.12 Millwoods Reservoir

December 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	0.9	<0.5	1.2	6	(15)	10
Conductivity (uS/cm)				0	397	370	421	6		
Odour				0	Inoff	Inoff	Inoff	6		
pH (N/A)				0	7.8	7.7	8.0	24	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.12	0.14	5	0.11	0.06	0.23	53		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0005	<0.0002	<0.0005	6	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	6	0.01	
Barium				0	0.061	0.051	0.071	6	2	
Boron				0	0.010	0.007	0.013	6	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	6	0.007	
Chlorate Dissolved				0	0.134	0.090	0.171	6	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	6	0.05	
Copper				0	<0.003	<0.002	<0.005	6	2 (1)	
Fluoride				0	0.68	0.65	0.72	6	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	6	0.005	
Manganese				0	<0.002	<0.002	<0.002	6	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	6	0.001	
Nitrate (as N) Dissolved				0	0.036	0.010	0.160	26	10	
Nitrite (as N) Dissolved				0	<0.009	<0.005	0.010	26	1	
Selenium				0	0.0003	0.0002	0.0004	6	0.05	
Strontium				0	0.448	0.422	0.481	6	7.0	
Total Chlorine	2.08	2.00	2.11	5	2.01	1.79	2.21	53	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	6	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	7	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	7	2	
Chlorobenzene				0	<0.57	<0.50	1.00	7	80 (30)	
Dichlorobenzene (1,2)				0	<0.57	<0.50	1.00	7		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	7	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	7	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	7	14	
Ethylbenzene				0	<0.57	<0.50	1.00	7	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	7	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	7	10	
Toluene				0	<0.57	<0.50	1.00	7	60 (24)	
Total Xylenes				0	<1	<1	<1	7	90	
Trichloroethylene				0	<0.57	<0.50	1.00	7	5	
Vinyl Chloride				0	<1.1	<1.0	2.0	7	2	

2.2.12 Millwoods Reservoir

December 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				0	116	112	123	6		
Aluminum				0	0.086	0.022	0.168	6	2.9	0.1/0.2
Ammonia as NH3				0	0.17	0.11	0.19	24		
Beryllium				0	<0.0002	<0.0002	<0.0002	6		
Bromide Dissolved				0	<0.023	<0.010	<0.030	6		
Calcium				0	47.2	45.2	49.6	6		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	117	113	124	5		
Chloride Dissolved				0	6.5	5.5	7.4	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	6		
Iron				0	<0.005	<0.005	<0.005	6	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	6		
Lithium				0	0.0037	0.0031	0.0045	6		
Magnesium				0	13.9	13.3	14.5	6		
Molybdenum				0	0.0008	0.0006	0.0011	6		
Nickel				0	<0.0005	<0.0005	0.0005	6		
Ortho Phosphate (as P)	0.93	0.90	0.94	8	0.90	0.82	1.00	60		
Phosphorus				0	0.97	0.90	1.01	6		
Potassium				0	0.85	0.70	1.10	6		
Silicon				0	1.98	1.55	2.43	6		
Silver				0	<0.0002	<0.0002	<0.0002	6		
Sodium				0	11.9	7.3	16.4	6	(200)	
Sulphate Dissolved				0	72.7	61.0	80.4	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	6		
Tin				0	<0.0005	<0.0005	<0.0005	6		
Titanium				0	<0.0005	<0.0005	<0.0005	6		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	175	168	184	5		
Vanadium				0	<0.0005	<0.0005	<0.0005	6		
Zinc				0	<0.005	<0.005	<0.005	6	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	6		

2.2.12 Millwoods Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.1	0.6	2.2	7		16
Bromoform				0	<0.6	<0.5	1.0	7		
Chloroform				0	18.6	6.8	37.4	7		
Dibromochloromethane				0	<0.57	<0.50	1.00	7		
Dichlorobenzene (1,3)				0	<0.57	<0.50	1.00	7		
Dichloroethylene, cis (1,2)				0	<0.57	<0.50	1.00	7		
Dichloroethylene, trans (1,2)				0	<0.57	<0.50	1.00	7		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	7		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	7	(15)	
MIBK				0	<1.1	<1.0	2.0	7		
Styrene				0	<0.57	<0.50	1.00	7		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	7		
Total Organic Carbon				0	1.7	0.9	2.6	19		
Total Volatile Organics (NonTHM)				0	1.7	<1.0	3.6	7		
Total Volatile Organics (Unknown)				0	1.3	1.3	1.3	1		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	7		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	7		
Xylene (1,2)				0	<0.6	<0.5	1.0	7		
Xylene (1,4)				0	<0.6	<0.5	1.0	7		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.13 North Jasper Place Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.3	1.3	1.3	1	0.9	0.6	1.3	7	(15)	10
Conductivity (uS/cm)	403	403	403	1	399	367	421	7		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	7		
pH (N/A)	8.0	8.0	8.0	1	7.8	7.7	8.0	25	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.11	0.17	5	0.12	0.05	0.37	53		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	7	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	7	0.01	
Barium	0.063	0.063	0.063	1	0.061	0.054	0.068	7	2	
Boron	0.009	0.009	0.009	1	0.010	0.008	0.014	7	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	8	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.007	
Chlorate Dissolved	0.090	0.090	0.090	1	0.112	<0.080	0.147	8	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.029	<0.005	<0.200	8	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.005	7	2 (1)	
Fluoride	0.74	0.74	0.74	1	0.70	0.64	0.74	7	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	7	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.001	
Nitrate (as N) Dissolved	0.070	0.070	0.070	1	0.047	0.020	0.190	27	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.009	<0.005	0.010	27	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	7	0.05	
Strontium	0.487	0.487	0.487	1	0.451	0.416	0.487	7	7.0	
Total Chlorine	1.78	1.76	1.81	5	1.66	1.25	2.07	53	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	7	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	7	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	7	2	

2.2.13 North Jasper Place Reservoir

December 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	127	127	127	1	118	110	128	7		
Aluminum	0.125	0.125	0.125	1	0.071	0.024	0.125	7	2.9	0.1/0.2
Ammonia as NH3	0.14	0.14	0.14	1	0.21	0.14	0.25	23		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.028	<0.010	<0.050	8		
Calcium	50.1	50.1	50.1	1	47.0	43.9	51.0	7		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	125	125	125	1	116	110	125	5		
Chloride Dissolved	5.9	5.9	5.9	1	6.8	5.9	8.0	8	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		
Lithium	0.0036	0.0036	0.0036	1	0.0034	0.0030	0.0041	7		
Magnesium	14.7	14.7	14.7	1	13.8	12.2	14.7	7		
Molybdenum	0.0007	0.0007	0.0007	1	0.0007	0.0005	0.0009	7		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	7		
Ortho Phosphate (as P)	0.90	0.88	0.92	8	0.90	0.74	1.08	60		
Phosphorus	0.99	0.99	0.99	1	0.98	0.92	1.00	7		
Potassium	0.80	0.80	0.80	1	0.81	0.70	1.00	7		
Silicon	1.93	1.93	1.93	1	1.91	1.64	2.09	7		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Sodium	7.7	7.7	7.7	1	11.7	7.2	19.0	7	(200)	
Sulphate Dissolved	67.6	67.6	67.6	1	71.7	59.5	80.4	8	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0005	7		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Total Hardness (mg/L CaCO3)				0	184	173	194	2		
Total Hardness Calculated	186	186	186	1	172	160	186	5		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		

2.2.13 North Jasper Place Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	0.9	0.9	0.9	1	1.3	0.9	1.8	7		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Chloroform	16.6	16.6	16.6	1	21.2	12.7	36.0	7		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	7		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Total Organic Carbon	1.2	1.2	1.2	1	1.7	1.0	2.4	19		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	2.2	<1.0	3.5	7		
Total Volatile Organics (Unknown)				0	1.7	1.7	1.7	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.14 Ormsby Reservoir

December 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	0.9	0.6	1.1	5	(15)	10
Conductivity (uS/cm)				0	403	371	424	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)				0	7.8	7.6	8.0	24	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.11	0.13	5	0.11	0.05	0.28	53		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0002	5	0.01	
Barium				0	0.060	0.051	0.071	5	2	
Boron				0	0.010	0.007	0.011	5	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	5	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.102	0.060	0.139	5	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	5	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.68	0.66	0.71	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved				0	0.037	0.010	0.170	26	10	
Nitrite (as N) Dissolved				0	<0.009	<0.005	0.010	26	1	
Selenium				0	0.0003	0.0002	0.0003	5	0.05	
Strontium				0	0.439	0.424	0.458	5	7.0	
Total Chlorine	2.08	1.97	2.14	5	1.94	1.62	2.15	53	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	6	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	6	2	
Chlorobenzene				0	<0.58	<0.50	1.00	6	80 (30)	
Dichlorobenzene (1,2)				0	<0.58	<0.50	1.00	6		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	6	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	6	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	6	14	
Ethylbenzene				0	<0.58	<0.50	1.00	6	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	6	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	6	10	
Toluene				0	<0.58	<0.50	1.00	6	60 (24)	
Total Xylenes				0	<1	<1	<1	6	90	
Trichloroethylene				0	<0.58	<0.50	1.00	6	5	
Vinyl Chloride				0	<1.2	<1.0	2.0	6	2	

2.2.14 Ormsby Reservoir

December 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				0	117	112	123	5		
Aluminum				0	0.078	0.023	0.138	5	2.9	0.1/0.2
Ammonia as NH3				0	0.17	0.11	0.20	24		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.022	<0.010	<0.030	5		
Calcium				0	46.8	43.9	49.6	5		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	117	110	124	4		
Chloride Dissolved				0	7.0	5.7	7.9	5	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0034	0.0030	0.0040	5		
Magnesium				0	13.7	13.1	14.2	5		
Molybdenum				0	0.0008	0.0006	0.0011	5		
Nickel				0	<0.0005	<0.0005	<0.0005	5		
Ortho Phosphate (as P)	0.93	0.90	0.94	8	0.90	0.68	0.98	60		
Phosphorus				0	0.98	0.88	1.04	5		
Potassium				0	0.86	0.60	1.30	5		
Silicon				0	2.04	1.53	2.39	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	13.0	7.3	16.2	5	(200)	
Sulphate Dissolved				0	73.1	61.1	78.0	5	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	173	164	182	4		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.14 Ormsby Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	0.9	0.5	1.1	6		16
Bromoform				0	<0.6	<0.5	1.0	6		
Chloroform				0	17.9	6.6	38.1	6		
Dibromochloromethane				0	<0.58	<0.50	1.00	6		
Dichlorobenzene (1,3)				0	<0.58	<0.50	1.00	6		
Dichloroethylene, cis (1,2)				0	<0.58	<0.50	1.00	6		
Dichloroethylene, trans (1,2)				0	<0.58	<0.50	1.00	6		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	6		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	6	(15)	
MIBK				0	<1.2	<1.0	2.0	6		
Styrene				0	<0.58	<0.50	1.00	6		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	6		
Total Organic Carbon				0	1.7	0.9	2.5	19		
Total Volatile Organics (NonTHM)				0	1.4	<1.0	2.3	6		
Total Volatile Organics (Unknown)				0	0.9	0.6	1.2	2		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	6		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	6		
Xylene (1,2)				0	<0.6	<0.5	1.0	6		
Xylene (1,4)				0	<0.6	<0.5	1.0	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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.15 Papaschase 1 Reservoir

December 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	0.9	0.7	1.0	5	(15)	10
Conductivity (uS/cm)				0	388	367	408	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)				0	7.8	7.6	8.0	24	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.12	0.15	5	0.14	0.06	0.26	53		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	5	0.01	
Barium				0	0.059	0.050	0.071	5	2	
Boron				0	0.009	0.007	0.011	5	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	5	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.232	0.190	0.261	5	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	5	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.69	0.64	0.75	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved				0	0.040	0.010	0.160	26	10	
Nitrite (as N) Dissolved				0	<0.009	<0.005	0.010	26	1	
Selenium				0	0.0002	0.0002	0.0003	5	0.05	
Strontium				0	0.437	0.423	0.455	5	7.0	
Total Chlorine	1.98	1.76	2.17	5	1.87	1.35	2.17	53	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	6	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	6	2	
Chlorobenzene				0	<0.58	<0.50	1.00	6	80 (30)	
Dichlorobenzene (1,2)				0	<0.58	<0.50	1.00	6		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	6	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	6	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	6	14	
Ethylbenzene				0	<0.58	<0.50	1.00	6	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	6	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	6	10	
Toluene				0	<0.58	<0.50	1.00	6	60 (24)	
Total Xylenes				0	<1	<1	<1	6	90	
Trichloroethylene				0	<0.58	<0.50	1.00	6	5	
Vinyl Chloride				0	<1.2	<1.0	2.0	6	2	

2.2.15 Papaschase 1 Reservoir

December 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				0	115	110	120	5		
Aluminum				0	0.066	0.019	0.104	5	2.9	0.1/0.2
Ammonia as NH3				0	0.19	0.11	0.28	24		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.022	<0.010	<0.030	5		
Calcium				0	47.3	45.1	50.1	5		
Calcium Hardness				0	123	123	123	1		
Calcium Hardness Calculated				0	117	113	123	4		
Chloride Dissolved				0	6.1	4.9	7.5	5	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	0.012	0.007	0.016	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0037	0.0032	0.0045	5		
Magnesium				0	13.8	13.1	14.5	5		
Molybdenum				0	0.0008	0.0006	0.0011	5		
Nickel				0	<0.0005	<0.0005	<0.0005	5		
Ortho Phosphate (as P)	0.90	0.88	0.92	8	0.86	0.74	0.92	60		
Phosphorus				0	0.94	0.88	0.97	5		
Potassium				0	0.84	0.70	1.10	5		
Silicon				0	2.00	1.58	2.39	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	9.6	6.8	11.4	5	(200)	
Sulphate Dissolved				0	69.7	60.5	75.2	5	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	173	167	182	4		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.15 Papaschase 1 Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	0.9	0.6	1.6	6		16
Bromoform				0	<0.6	<0.5	1.0	6		
Chloroform				0	18.5	7.8	35.1	6		
Dibromochloromethane				0	<0.58	<0.50	1.00	6		
Dichlorobenzene (1,3)				0	<0.58	<0.50	1.00	6		
Dichloroethylene, cis (1,2)				0	<0.58	<0.50	1.00	6		
Dichloroethylene, trans (1,2)				0	<0.58	<0.50	1.00	6		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	6		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	6	(15)	
MIBK				0	<1.2	<1.0	2.0	6		
Styrene				0	<0.58	<0.50	1.00	6		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	6		
Total Organic Carbon				0	1.7	0.9	2.5	19		
Total Volatile Organics (NonTHM)				0	1.3	<1.0	1.8	6		
Total Volatile Organics (Unknown)				0	<0.5	<0.5	<0.5	1		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	6		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	6		
Xylene (1,2)				0	<0.6	<0.5	1.0	6		
Xylene (1,4)				0	<0.6	<0.5	1.0	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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.16 Papaschase 2 Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.2	1.2	1.2	1	1.0	0.7	1.4	7	(15)	10
Conductivity (uS/cm)	404	404	404	1	394	368	430	7		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	7		
pH (N/A)	8.0	8.0	8.0	1	7.8	7.6	8.0	25	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.11	0.17	5	0.11	0.05	0.26	53		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	7	0.006	
Arsenic	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	7	0.01	
Barium	0.070	0.070	0.070	1	0.063	0.055	0.070	7	2	
Boron	0.010	0.010	0.010	1	0.010	0.008	0.013	7	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	7	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.007	
Chlorate Dissolved	0.232	0.232	0.232	1	0.204	0.108	0.300	7	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.033	<0.005	<0.200	7	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.005	7	2 (1)	
Fluoride	0.75	0.75	0.75	1	0.71	0.66	0.75	7	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	7	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.001	
Nitrate (as N) Dissolved	0.080	0.080	0.080	1	0.042	<0.010	0.170	26	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.009	<0.005	0.010	26	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	7	0.05	
Strontium	0.487	0.487	0.487	1	0.453	0.400	0.487	7	7.0	
Total Chlorine	2.00	1.88	2.08	5	1.96	1.73	2.17	53	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	7	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	7	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	7	2	

2.2.16 Papaschase 2 Reservoir

December 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	130	130	130	1	119	109	130	7		
Aluminum	0.096	0.096	0.096	1	0.077	0.023	0.157	7	2.9	0.1/0.2
Ammonia as NH3	0.12	0.12	0.12	1	0.18	0.12	0.27	24		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.027	<0.010	<0.050	7		
Calcium	50.4	50.4	50.4	1	47.8	43.0	52.2	7		
Calcium Hardness				0	123	116	130	2		
Calcium Hardness Calculated	126	126	126	1	117	107	126	5		
Chloride Dissolved	5.3	5.3	5.3	1	6.2	4.8	7.2	7	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		
Lithium	0.0038	0.0038	0.0038	1	0.0038	0.0030	0.0044	7		
Magnesium	14.6	14.6	14.6	1	13.9	12.2	14.8	7		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0006	0.0010	7		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Ortho Phosphate (as P)	0.91	0.88	0.92	8	0.88	0.80	0.92	60		
Phosphorus	0.98	0.98	0.98	1	0.96	0.89	0.98	7		
Potassium	0.80	0.80	0.80	1	0.81	0.70	1.10	7		
Silicon	2.02	2.02	2.02	1	1.90	1.55	2.14	7		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Sodium	7.4	7.4	7.4	1	9.9	6.9	17.1	7	(200)	
Sulphate Dissolved	67.1	67.1	67.1	1	69.5	59.9	79.4	7	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0005	7		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Total Hardness (mg/L CaCO3)				0	186	177	194	2		
Total Hardness Calculated	186	186	186	1	174	158	186	5		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		

2.2.16 Papaschase 2 Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	0.9	0.9	0.9	1	1.3	0.8	2.2	7		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Chloroform	15.4	15.4	15.4	1	18.2	9.9	26.9	7		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	7		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	7		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Total Organic Carbon	1.5	1.5	1.5	1	1.7	0.9	2.6	20		
Total Volatile Organics (NonTHM)	1.1	1.1	1.1	1	2.8	<1.0	5.9	7		
Total Volatile Organics (Unknown)				0	0.6	0.6	0.6	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	7		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.17 Rosslyn 1 Reservoir

December 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	1.0	0.6	1.4	5	(15)	10
Conductivity (uS/cm)				0	395	368	408	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)				0	7.8	7.7	8.1	23	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.11	0.15	4	0.15	0.08	0.53	50		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0002	5	0.01	
Barium				0	0.060	0.053	0.069	5	2	
Boron				0	0.011	0.007	0.014	5	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.181	0.152	0.204	6	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.69	0.66	0.73	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved				0	0.039	0.020	0.190	24	10	
Nitrite (as N) Dissolved				0	<0.009	<0.005	0.010	24	1	
Selenium				0	0.0003	0.0002	0.0003	5	0.05	
Strontium				0	0.438	0.426	0.459	5	7.0	
Total Chlorine	1.99	1.95	2.02	4	1.82	1.55	2.07	50	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	5	2	
Chlorobenzene				0	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	5	14	
Ethylbenzene				0	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	5	10	
Toluene				0	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes				0	<1	<1	<1	5	90	
Trichloroethylene				0	<0.60	<0.50	1.00	5	5	
Vinyl Chloride				0	<1.2	<1.0	2.0	5	2	

2.2.17 Rosslyn 1 Reservoir

December 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				0	116	112	122	5		
Aluminum				0	0.069	0.020	0.122	5	2.9	0.1/0.2
Ammonia as NH3				0	0.19	0.14	0.23	21		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.023	<0.010	<0.030	6		
Calcium				0	47.4	45.2	49.8	5		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	117	113	123	4		
Chloride Dissolved				0	6.5	5.2	7.6	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	0.008	<0.005	0.011	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0036	0.0031	0.0042	5		
Magnesium				0	13.8	13.3	14.6	5		
Molybdenum				0	0.0008	0.0006	0.0010	5		
Nickel				0	<0.0005	<0.0005	<0.0005	5		
Ortho Phosphate (as P)	0.93	0.90	0.96	6	0.89	0.86	0.96		58	
Phosphorus				0	0.97	0.91	1.00		5	
Potassium				0	0.92	0.60	1.50	5		
Silicon				0	2.05	1.55	2.35	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	11.3	7.1	14.4	5	(200)	
Sulphate Dissolved				0	72.2	60.8	76.5	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	183	183	183	1		
Total Hardness Calculated				0	173	168	181	4		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.17 Rosslyn 1 Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.1	0.8	1.5	5		16
Bromoform				0	<0.6	<0.5	1.0	5		
Chloroform				0	21.0	8.9	34.2	5		
Dibromochloromethane				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)				0	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	5	(15)	
MIBK				0	<1.2	<1.0	2.0	5		
Styrene				0	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	5		
Total Organic Carbon				0	1.7	1.0	2.5	18		
Total Volatile Organics (NonTHM)				0	1.4	<1.0	2.1	5		
Total Volatile Organics (Unknown)				0	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	5		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	5		
Xylene (1,2)				0	<0.6	<0.5	1.0	5		
Xylene (1,4)				0	<0.6	<0.5	1.0	5		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.18 Rosslyn 2 Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.8	0.8	0.8	1	0.8	0.6	0.9	7	(15)	10
Conductivity (uS/cm)	399	399	399	1	394	369	419	7		
Odour				0	Inoff	Inoff	Inoff	6		
pH (N/A)	7.9	7.9	7.9	1	7.8	7.7	8.1	25	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.10	0.15	5	0.11	0.07	0.18	53		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	7	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	7	0.01	
Barium	0.063	0.063	0.063	1	0.062	0.054	0.067	7	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.012	7	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	8	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.007	
Chlorate Dissolved	0.195	0.195	0.195	1	0.187	0.147	0.206	8	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.029	<0.005	<0.200	8	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.005	7	2 (1)	
Fluoride	0.74	0.74	0.74	1	0.70	0.67	0.74	7	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	7	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.001	
Nitrate (as N) Dissolved	0.080	0.080	0.080	1	0.042	0.020	0.170	25	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.009	<0.005	0.010	25	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	7	0.05	
Strontium	0.483	0.483	0.483	1	0.456	0.419	0.483	7	7.0	
Total Chlorine	1.88	1.83	1.93	5	1.70	1.30	2.08	53	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	7	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	8	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	8	2	

2.2.18 Rosslyn 2 Reservoir

December 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	127	127	127	1	119	111	127	7		
Aluminum	0.102	0.102	0.102	1	0.074	0.025	0.170	7	2.9	0.1/0.2
Ammonia as NH3	0.15	0.15	0.15	1	0.22	0.15	0.27	23		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.028	<0.010	<0.050	8		
Calcium	49.5	49.5	49.5	1	47.4	44.5	51.0	7		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	124	124	124	1	117	111	124	5		
Chloride Dissolved	5.3	5.3	5.3	1	6.2	5.3	7.4	8	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	0.007	7	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		
Lithium	0.0036	0.0036	0.0036	1	0.0036	0.0031	0.0042	7		
Magnesium	14.8	14.8	14.8	1	14.0	12.7	14.9	7		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0006	0.0009	7		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	7		
Ortho Phosphate (as P)	0.90	0.88	0.92	8	0.89	0.84	0.92	60		
Phosphorus	0.96	0.96	0.96	1	0.96	0.90	0.99	7		
Potassium	0.80	0.80	0.80	1	0.81	0.70	1.00	7		
Silicon	1.87	1.87	1.87	1	1.88	1.62	2.14	7		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Sodium	7.3	7.3	7.3	1	10.2	7.1	16.5	7	(200)	
Sulphate Dissolved	66.0	66.0	66.0	1	70.5	59.4	78.7	8	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0005	7		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Total Hardness (mg/L CaCO3)				0	186	178	194	2		
Total Hardness Calculated	184	184	184	1	173	163	184	5		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		

2.2.18 Rosslyn 2 Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	0.9	0.9	0.9	1	1.3	0.9	1.9	8		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Chloroform	16.5	16.5	16.5	1	22.0	14.6	35.3	8		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	8		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	8		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Total Organic Carbon	1.0	1.0	1.0	1	1.7	1.0	2.4	20		
Total Volatile Organics (NonTHM)	2.2	2.2	2.2	1	2.3	<1.0	3.8	8		
Total Volatile Organics (Unknown)				0	1.9	1.9	1.9	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	8		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

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

2.2.19 Thorncliff Reservoir

December 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	0.9	<0.5	1.4	7	(15)	10
Conductivity (uS/cm)	407	407	407	1	399	368	420	7		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	7		
pH (N/A)	7.9	7.9	7.9	1	7.8	7.6	8.0	25	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.15	0.11	0.19	5	0.12	0.05	0.33	54		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	7	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	7	0.01	
Barium	0.067	0.067	0.067	1	0.062	0.055	0.067	7	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.012	7	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	7	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.007	
Chlorate Dissolved	0.090	0.090	0.090	1	0.108	<0.080	0.143	7	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.033	<0.005	<0.200	7	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.005	7	2 (1)	
Fluoride	0.72	0.72	0.72	1	0.70	0.64	0.77	7	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	7	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7	0.001	
Nitrate (as N) Dissolved	0.080	0.080	0.080	1	0.042	<0.010	0.180	26	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.009	<0.005	0.010	26	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	7	0.05	
Strontium	0.493	0.493	0.493	1	0.453	0.413	0.493	7	7.0	
Total Chlorine	1.89	1.83	1.95	5	1.73	1.26	2.23	54	>0.5 and <3.0	>1.0 and <2.4
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	0.0006	7	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	10	
Toluene	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	7	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.1	<1.0	2.0	7	2	

2.2.19 Thorncliff Reservoir

December 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	128	128	128	1	118	110	129	7		
Aluminum	0.132	0.132	0.132	1	0.091	0.027	0.194	7	2.9	0.1/0.2
Ammonia as NH3	0.12	0.12	0.12	1	0.20	0.12	0.26	24		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.027	<0.010	<0.050	7		
Calcium	50.9	50.9	50.9	1	47.3	43.7	50.9	7		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	127	127	127	1	117	109	127	5		
Chloride Dissolved	6.0	6.0	6.0	1	6.7	6.0	8.1	7	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		
Lithium	0.0037	0.0037	0.0037	1	0.0034	0.0030	0.0040	7		
Magnesium	14.9	14.9	14.9	1	14.0	12.4	14.9	7		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0006	0.0009	7		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	7		
Ortho Phosphate (as P)	0.92	0.88	0.94	8	0.89	0.66	0.96	66		
Phosphorus	1.01	1.01	1.01	1	0.99	0.93	1.01	7		
Potassium	0.80	0.80	0.80	1	0.81	0.70	1.00	7		
Silicon	2.01	2.01	2.01	1	1.90	1.60	2.11	7		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	7		
Sodium	7.8	7.8	7.8	1	11.6	7.3	18.3	7	(200)	
Sulphate Dissolved	68.9	68.9	68.9	1	71.5	59.6	79.7	7	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0005	7		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Total Hardness (mg/L CaCO3)				0	182	174	189	2		
Total Hardness Calculated	189	189	189	1	173	160	189	5		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	7		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	7	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	7		

2.2.19 Thorncliff Reservoir

December 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.1	1.1	1.1	1	1.3	0.8	2.1	7		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7		
Chloroform	14.4	14.4	14.4	1	19.8	10.9	31.1	7		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.1	<1.0	2.0	7		
Styrene	<0.50	<0.50	<0.50	1	<0.57	<0.50	1.00	7		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7		
Total Organic Carbon	1.4	1.4	1.4	1	1.7	0.8	2.3	20		
Total Volatile Organics (NonTHM)	1.7	1.7	1.7	1	2.4	<1.0	4.1	7		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	7		

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 Protected Areas (AEPA) Operating Approval 638-04-01. 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 AEPA Operating Approval 638-04-01.

*** 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

December 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	27.0	15.1	38.9	2	27.0	15.1	38.9	2		
02-SR				0	29.7	20.0	39.4	2	29.7	20.0	39.4	2		
04-SR				0	25.4	15.8	36.3	4	25.4	15.8	36.3	4		
07-RI				0	13.5	9.7	17.3	2	13.5	9.7	17.3	2		
07-SR				0	13.6	10.7	16.4	2	13.6	10.7	16.4	2		
11-RI				0	11.6	11.6	11.6	1	11.6	11.6	11.6	1		
19-SR				0	26.9	13.5	40.3	2	26.9	13.5	40.3	2		
20-DE				0	26.4	15.6	37.1	2	26.4	15.6	37.1	2		
21-DE				0	16.4	16.4	16.4	1	16.4	16.4	16.4	1		
21-SR	18.0	18.0	18.0	1	16.3	14.5	18.0	2	16.3	14.5	18.0	2		
24-SR				0	14.0	13.3	14.6	2	14.0	13.3	14.6	2		
30-SR	15.9	15.9	15.9	1	18.8	8.6	37.0	7	18.8	8.6	37.0	7		
31-DE	18.4	18.4	18.4	1	20.2	13.0	33.5	4	20.2	13.0	33.5	4		
31-RI				0	25.8	15.8	34.0	4	25.8	15.8	34.0	4		
32-SR	15.7	15.7	15.7	1	17.1	11.2	29.4	4	17.1	11.2	29.4	4		
36-DE				0	15.5	15.5	15.5	1	15.5	15.5	15.5	1		
37-SR				0	25.3	16.2	34.3	2	25.3	16.2	34.3	2		
40-SR	15.0	15.0	15.0	1	18.6	9.1	32.2	7	18.6	9.1	32.2	7		
41-SR				0	9.6	9.6	9.6	1	9.6	9.6	9.6	1		
5-RI	16.5	16.5	16.5	1	16.5	16.5	16.5	1	16.5	16.5	16.5	1		
7-RI				0	30.7	30.7	30.7	1	30.7	30.7	30.7	1		
EDMONTON S4				0	21.9	13.0	35.1	3	21.9	13.0	35.1	3		
		Total Count		6				57				57		

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

December 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
				0	21.4	13.9	32.7	13	21.4	13.9	32.7	13		
01-SR				0	21.8	16.8	26.7	2	21.8	16.8	26.7	2		
02-SR				0	30.5	19.8	41.1	2	30.5	19.8	41.1	2		
04-SR				0	26.3	19.1	36.2	4	26.3	19.1	36.2	4		
07-RI				0	16.6	14.2	19.0	2	16.6	14.2	19.0	2		
07-SR				0	15.0	12.9	17.0	2	15.0	12.9	17.0	2		
11-RI				0	13.7	13.7	13.7	1	13.7	13.7	13.7	1		
19-SR				0	31.0	12.6	49.3	2	31.0	12.6	49.3	2		
20-DE				0	20.0	10.6	29.3	2	20.0	10.6	29.3	2		
21-DE				0	16.3	16.3	16.3	1	16.3	16.3	16.3	1		
21-SR	20.1	20.1	20.1	1	15.7	11.2	20.1	2	15.7	11.2	20.1	2		
22-DE				0	25.9	25.9	25.9	1	25.9	25.9	25.9	1		
24-SR				0	17.3	14.0	20.5	2	17.3	14.0	20.5	2		
30-SR	18.4	18.4	18.4	1	19.0	10.3	33.1	7	19.0	10.3	33.1	7		
31-DE	16.0	16.0	16.0	1	17.1	14.7	20.5	3	17.1	14.7	20.5	3		
31-RI				0	23.7	14.0	34.8	4	23.7	14.0	34.8	4		
32-SR	16.4	16.4	16.4	1	21.3	13.0	37.4	4	21.3	13.0	37.4	4		
36-DE				0	14.8	14.8	14.8	1	14.8	14.8	14.8	1		
37-SR				0	22.0	16.6	27.3	2	22.0	16.6	27.3	2		
40-SR	16.8	16.8	16.8	1	18.2	11.8	29.5	7	18.2	11.8	29.5	7		
41-DE				0	26.9	26.9	26.9	1	26.9	26.9	26.9	1		
41-SR				0	12.6	12.6	12.6	1	12.6	12.6	12.6	1		
5-RI	16.5	16.5	16.5	1	16.5	16.5	16.5	1	16.5	16.5	16.5	1		
7-RI				0	24.8	24.8	24.8	1	24.8	24.8	24.8	1		
EDMONTON S4				0	26.0	12.6	49.6	3	26.0	12.6	49.6	3		
	Total Count			6				71				71		

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

December 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
				0	<0.003	<0.001	<0.006	6	<0.003	<0.001	<0.006	6		
04-SR				0	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1		
07-RI				0	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
07-SR				0	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1		
11-RI				0	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
20-DE				0	<0.003	<0.003	<0.003	1	<0.003	<0.003	<0.003	1		
21-DE				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1		
21-SR	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	<0.002	<0.002	<0.002	2		
22-DE				0	<0.004	<0.004	<0.004	1	<0.004	<0.004	<0.004	1		
24-SR				0	<0.002	<0.001	<0.002	2	<0.002	<0.001	<0.002	2		
30-SR				0	<0.003	<0.001	<0.005	3	<0.003	<0.001	<0.005	3		
31-DE	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.006	2	<0.004	<0.003	<0.006	2		
31-RI				0	<0.005	<0.003	0.007	3	<0.005	<0.003	0.007	3		
37-SR				0	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1		
40-SR	<0.003	<0.003	<0.003	1	<0.003	<0.002	<0.006	5	<0.003	<0.002	<0.006	5		
41-DE				0	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1		
7-RI				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1		
EDMONTON S4				0	<0.002	<0.001	<0.002	3	<0.002	<0.001	<0.002	3		
		Total Count		3				36				36		

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

December 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	22.2	7.8	36.2	5	22.2	7.8	36.2	5		
Clareview Reservoir	20.4	20.4	20.4	1	23.5	15.4	36.9	7	23.5	15.4	36.9	7		
Discovery Park Reservoir	17.3	17.3	17.3	1	23.4	13.1	39.7	8	23.4	13.1	39.7	8		
Kaskitayo Reservoir	18.3	18.3	18.3	1	20.3	10.8	33.4	6	20.3	10.8	33.4	6		
Londonderry Reservoir				0	22.4	9.8	35.8	5	22.4	9.8	35.8	5		
Millwoods Reservoir				0	19.8	7.8	38.3	7	19.8	7.8	38.3	7		
North Jasper Place Reservoir	17.7	17.7	17.7	1	22.7	14.0	37.9	7	22.7	14.0	37.9	7		
Ormsby Reservoir				0	19.0	7.7	39.0	6	19.0	7.7	39.0	6		
Papaschase Reservoir 1				0	19.4	8.8	35.4	6	19.4	8.8	35.4	6		
Papaschase Reservoir 2	16.4	16.4	16.4	1	19.7	11.0	28.8	7	19.7	11.0	28.8	7		
Rosslyn Reservoir 1				0	22.1	10.0	35.7	5	22.1	10.0	35.7	5		
Rosslyn Reservoir 2	17.6	17.6	17.6	1	23.6	16.1	37.5	8	23.6	16.1	37.5	8		
Thorncliff Reservoir	15.5	15.5	15.5	1	21.3	12.2	32.9	7	21.3	12.2	32.9	7		
		Total Count		7				84				84		

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

December 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
				0	20.3	12.5	40.7	9	20.3	12.5	40.7	9		
		Total Count		0				9				9		

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

December 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
Microbiologicals																
Microcystin				0				0	<0.2	<0.2	<0.2	4	<0.2	<0.2	<0.2	4
Physical																
Colour (TCU)	3.5	2.7	6.1	30	3.4	2.6	6.0	31	8.3	2.7	43.8	360	8.5	2.6	43.6	365
Conductivity (uS/cm)	375	357	400	4	363	346	401	5	362	311	415	52	356	311	416	53
FPA-Intensity (N/A)	0.63	0.38	0.88	3	0.69	0.69	0.69	3	0.74	0.25	2.38	61	0.78	0.31	2.25	61
pH (N/A)	8.2	8.2	8.2	1	8.2	8.2	8.2	1	8.2	8.1	8.4	12	8.3	8.1	8.4	12
Total Dissolved Solids (mg/L)	221	221	221	1	240	240	240	1	217	186	292	12	210	184	240	12
Total Suspended Solids	<2.5	<2.5	<2.5	1	7.4	7.4	7.4	1	12.8	<1.0	53.7	12	24.2	<1.8	154.0	12
Turbidity (NTU)	3	1	10	30	2	1	10	31	8	1	367	360	11	1	257	365
Primary Inorganics (mg/L)																
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	0.0005	12	<0.0004	<0.0002	<0.0005	12
Arsenic	0.0004	0.0004	0.0004	1	0.0004	0.0004	0.0004	1	0.0004	<0.0002	0.0011	12	0.0005	<0.0002	0.0022	12
Barium	0.084	0.084	0.084	1	0.085	0.085	0.085	1	0.075	0.058	0.125	12	0.080	0.057	0.180	12
Boron	0.011	0.011	0.011	1	0.011	0.011	0.011	1	0.011	0.008	0.018	12	0.012	0.008	0.022	12
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	<0.0002	<0.0002	<0.0002	12
Chromium	0.0002	0.0002	0.0002	1	0.0003	0.0003	0.0003	1	0.0010	<0.0002	0.0053	12	0.0015	<0.0002	0.0099	12
Copper	0.003	0.003	0.003	1	<0.002	<0.002	<0.002	1	<0.003	<0.002	0.005	12	<0.003	<0.002	0.006	12
Fluoride	0.11	0.10	0.12	4	0.10	0.10	0.12	5	0.11	0.08	0.15	52	0.11	0.08	0.13	53
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.0004	<0.0002	0.0013	12	0.0005	<0.0002	0.0027	12
Manganese	0.003	0.003	0.003	1	0.007	0.007	0.007	1	0.012	<0.002	0.050	12	0.017	0.003	0.080	12
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	16	<0.0002	<0.0002	<0.0002	16
Nitrate (as N) Dissolved	0.08	0.08	0.08	1	0.08	0.08	0.08	1	0.05	<0.01	0.19	49	0.05	<0.01	0.18	49
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	1	<0.010	<0.005	<0.010	49	<0.010	<0.005	<0.010	49
Selenium	0.0003	0.0003	0.0003	1	0.0004	0.0004	0.0004	1	0.0003	0.0002	0.0004	12	0.0003	<0.0002	0.0005	12
Total Chlorine	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	12	<0.03	<0.03	<0.03	12
Uranium	0.0007	0.0007	0.0007	1	0.0007	0.0007	0.0007	1	<0.0006	<0.0005	0.0007	12	<0.0006	<0.0005	0.0008	12

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

December 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
Primary Organics (ug/L)																
2,4-D				0				0	<0.15	<0.05	<0.25	4	<0.15	<0.05	<0.25	4
Atrazine				0				0	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4
Benzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4
Bromoxynil				0				0	<0.15	<0.05	<0.25	4	<0.15	<0.05	<0.25	4
Carbon tetrachloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365
Chlorobenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Cyanazine				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Diazinon				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4
Dicamba				0				0	<0.3	<0.1	<0.5	4	<0.3	<0.1	<0.5	4
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Dichloroethane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	359	<0.5	<0.5	<0.5	364
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	360	<0.5	<0.5	<3.0	365
Dichlorophenol (2,4)				0				0	<0.2	<0.2	<0.3	4	<0.2	<0.2	<0.3	4
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Dimethoate				0				0	<0.04	<0.00	<0.05	5	<0.04	<0.00	<0.05	5
Dimethoate and Omethoate (as Dimethoate)				0				0	<0.158	<0.000	<0.211	4	<0.158	<0.000	<0.211	4
Diuron				0				0	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4
Ethylbenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Glyphosate				0				0	<0.3	<0.2	<0.5	4	<0.3	<0.2	<0.5	4
Malathion				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4
MCPA				0				0	<0.15	<0.05	<0.25	4	<0.15	<0.05	<0.25	4
Methylene Chloride	<0.8	<0.5	<1.0	30	<0.8	<0.5	<1.0	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365
Metolachlor				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4
Metribuzin				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
NDMA (µg/L)				0				0	<0.0009	<0.0009	<0.0009	1	<0.00099	<0.00099	<0.00099	1
Nitrilotriacetic acid				0				0	<0.40000	<0.400000	<0.40	4	<0.40	<0.40	<0.40	4
Paraquat				0				0	<1	<1	<1	1	<1	<1	<1	1
Paraquat (as dichloride)				0				0	<1	<1	<1	3	<1	<1	<1	3
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	4
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4
Perfluorooctanoic acid (PFOA)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4
Phorate				0				0	<0.25	<0.25	<0.25	4	<0.25	<0.25	<0.25	4
Picloram				0				0	<0.3	<0.1	<0.5	4	<0.3	<0.1	<0.5	4
Simazine				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Terbufos				0				0	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	4
Tetrachloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Toluene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	1.7	360	<0.5	<0.5	2.9	365

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

December 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
Primary Organics (ug/L)																
Total Xylenes	<0.7	<0.5	<1.0	30	<0.7	<0.5	<1.0	31	<1.0	<0.5	<2.5	360	<1.0	<0.5	<2.5	365
Trichloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Trifluralin				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Trihalomethanes	<1.0	<1.0	<1.0	30	<1	<1	<1	31	<1.0	<1.0	5.8	360	<1	<1	1	365
Vinyl chloride	<0.7	<0.5	<1.0	30	<0.7	<0.5	<1.0	31	<1.0	<0.5	<1.0	359	<1.0	<0.5	<1.0	364
Radionuclides (Bq/L)																
Cesium-137				0				0	<0.2	<0.2	<0.2	2	<0.2	<0.1	<0.2	2
Gross Alpha				0				0	<0.12	<0.10	<0.14	2	<0.13	<0.10	<0.15	2
Gross Beta				0				0	<0.06	<0.05	0.07	2	<0.07	<0.07	0.07	2
Iodine-131				0				0	<0.5	<0.3	<0.6	2	<0.4	<0.2	<0.6	2
Lead-210				0				0	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	2
Radium-226				0				0	0.007	<0.005	0.008	2	<0.005	<0.005	<0.005	2
Strontium-90				0				0	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2
Tritium				0				0	<40	<40	<40	2	<40	<40	<40	2

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

December 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	127	122	136	4	126	120	138	5	128	117	149	52	128	112	152	53
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	12	<3	<3	<3	12
Aluminum	0.132	0.132	0.132	1	0.189	0.189	0.189	1	0.745	0.104	4.200	12	1.058	0.078	7.370	12
Ammonia as NH3	<0.05	<0.05	<0.05	13	<0.05	<0.05	<0.05	13	<0.05	<0.05	0.09	77	<0.05	<0.05	0.14	81
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	<0.0002	<0.0002	0.0002	12
Calcium Hardness	118	113	124	4	118	112	132	5	117	96	138	45	116	99	140	46
Calcium Hardness Calculated				0				0	118	113	127	7	121	114	147	7
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0008	12	0.0004	<0.0002	0.0018	12
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	12	<0.07	<0.07	<0.07	12
Iron	0.129	0.129	0.129	1	0.206	0.206	0.206	1	0.498	0.048	2.110	12	0.768	0.075	4.850	12
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.001	12	<0.001	<0.001	0.003	12
Lithium	0.0042	0.0042	0.0042	1	0.0041	0.0041	0.0041	1	0.0044	0.0033	0.0076	12	0.0045	0.0033	0.0104	12
Magnesium	15.2	15.2	15.2	1	15.6	15.6	15.6	1	14.1	13.3	15.4	12	14.4	13.2	16.6	12
Molybdenum	0.0009	0.0009	0.0009	1	0.0009	0.0009	0.0009	1	0.0008	0.0005	0.0010	12	0.0008	0.0006	0.0011	12
Nickel	0.0008	0.0008	0.0008	1	0.0009	0.0009	0.0009	1	0.0012	<0.0005	0.0034	12	0.0015	<0.0005	0.0066	12
Ortho Phosphate (as P)	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	0.04	13	<0.02	<0.02	0.04	13
Phosphorus	<0.02	<0.02	<0.02	1	0.02	0.02	0.02	1	0.04	<0.02	0.09	12	0.04	<0.02	0.15	12
Potassium	0.9	0.9	0.9	1	0.9	0.9	0.9	1	1.0	0.7	2.2	12	1.1	0.7	3.2	12
Silicon	2.2	2.2	2.2	1	2.41	2.41	2.41	1	3.3	1.4	11.2	12	4.05	1.63	18.10	12
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	12	0.0002	<0.0002	<0.0002	12
Sodium	4.2	4.2	4.2	1	4.0	4.0	4.0	1	4.6	3.4	7.0	12	4.1	3.4	5.1	12
Strontium	0.463	0.463	0.463	1	0.471	0.471	0.471	1	0.452	0.419	0.499	12	0.454	0.418	0.504	12
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	12	<0.0003	<0.0002	<0.0005	12
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	12	<0.0005	<0.0005	<0.0005	12
Titanium	0.0026	0.0026	0.0026	1	0.0036	0.0036	0.0036	1	0.0195	0.0013	0.1140	12	0.0294	0.0017	0.2010	12
Total Hardness (mg/L CaCO3)	184	173	198	4	183	170	203	5	178	153	211	45	178	155	203	46
Total Hardness Calculated				0				0	175	170	187	7	180	169	216	7
Total Kjeldahl Nitrogen	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.3	<0.1	1.0	38	0.5	<0.1	9.4	39
Vanadium	<0.0005	<0.0005	<0.0005	1	0.0006	0.0006	0.0006	1	0.0020	<0.0005	0.0106	12	0.0028	<0.0005	0.0198	12
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.006	<0.005	0.011	12	<0.007	<0.005	0.020	12
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.003	12	0.002	<0.001	0.005	12

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

December 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)																
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35
Aldicarb				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Aldrin				0				0	<0.008	<0.008	<0.008	4	<0.008	<0.008	<0.008	4
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Bromodichloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Bromoform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365
Bromomethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35
Carbaryl				0				0	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4
Carbofuran				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4
Chloroethane	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	16	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	35
Chloroform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	5.7	360	<0.5	<0.5	<0.5	365
Chloromethane	<5	<5	<5	16	<5	<5	<5	16	<5	<5	<5	33	<5	<5	<5	35
Dibromochloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	0.6	365
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Dichloropropane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Dieldrin				0				0	<0.008	<0.008	<0.008	4	<0.008	<0.008	<0.008	4
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	354	<0.5	<0.5	<0.5	358
MIBK	<11	<1	<20	30	<11	<1	<20	31	<3	<1	<20	360	<3	<1	<20	365
Parathion				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Perfluorobutane sulfonic acid (PFBS)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4
Perfluorobutanoic acid (PFBA)				0				0	<0.04	<0.02	<0.10	4	<0.04	<0.02	<0.10	4
Perfluoroheptanoic acid (PFHpA)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4
Perfluorohexanoic acid (PFHxA)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4
Perfluorononanoic acid (PFNA)				0				0	<0.007	<0.002	<0.020	4	<0.007	<0.002	<0.020	4
Prometryn				0				0	<0.025	<0.025	<0.025	4	<0.025	<0.025	<0.025	4
Styrene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	360	<0.5	<0.5	<1.0	365
Total Organic Carbon	1.2	0.7	1.9	5	1.3	0.9	2.1	5	2.3	0.7	5.4	53	2.2	0.9	5.9	53
Total Volatile Organics (NonTHM)	<1.3	<1.0	1.8	14	<1.2	<1.0	1.8	15	2.2	<1.0	6.2	327	2.2	<1.0	6.1	330
Total Volatile Organics (Unknown)				0				0	<0.8	<0.5	2.1	23	<0.8	<0.5	2.1	31
Triallate				0				0	<0.1	<0.1	<0.1	4	<0.1	<0.1	<0.1	4
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	360	<0.5	<0.5	<0.5	365
Xylene (1,2)	<0.4	<0.3	<0.5	30	<0.4	<0.3	<0.5	31	<0.5	<0.3	<0.5	360	<0.5	<0.3	<0.5	365
Xylene (1,4)	<0.4	<0.4	<0.5	30	<0.4	<0.4	<0.5	31	<0.5	<0.4	0.6	360	<0.5	<0.4	0.9	365

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

(Lab Neutralization Tank in Water Excellence Lab Building)

Date	pH**
06-Dec-2024	6.6
13-Dec-2024	7.9
18-Dec-2024	7.49

**Drainage By-Law 19627 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	0.0005	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	0.03	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	0.3	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	0.002	mg/L
Copper Dissolved	0.002	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 Phosphate (as P)	0.02	mg/L as P
Phosphorus	0.02	mg/L
Potassium	0.1	mg/L
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	0.5	mg/L
Tetrachloroethane (1,1,2,2)	0.5	µg/L
Tetrachloroethylene	0.5	µg/L
Thallium	0.0002	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
UV Absorbance	0.001	UV Abs/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		
1,1,1-Trichloroethane	0.50	ug/L
1,1,2,2-Tetrachloroethane	0.50	ug/L
1,1,2-Trichloroethane	0.50	ug/L
1,1-Dichloroethane	0.50	ug/L
1,1-Dichloroethylene	0.50	ug/L
1,2,3-Trichlorobenzene	0.50	ug/L
1,2,3-Trichloropropane	0.50	ug/L
1,2,4-Trichlorobenzene	0.50	ug/L
1,2-Dibromoethane	0.50	ug/L
1,2-Dichlorobenzene	0.50	ug/L
1,2-Dichloroethane	0.50	ug/L
1,2-Dichloroethylene, cis	0.50	ug/L
1,2-Dichloroethylene, trans	0.50	ug/L
1,2-Dichloropropane	0.50	ug/L
1,3,5-Trichlorobenzene	0.50	ug/L
1,3-Dichlorobenzene	0.50	ug/L
1,3-Dichlorophropylene, trans	0.50	ug/L
1,3-Dichloropropylene, cis	0.50	ug/L
1,4-Dichloro-2-butene, cis	5.0	ug/L
1,4-Dichloro-2-butene, trans	5.0	ug/L
1,4-Dichlorobenzene	0.50	ug/L
2-Hexanone	20	ug/L
Acetone	20	ug/L
Acrolein	50	ug/L
Acrylonitrile	20	ug/L
Benzene	0.50	ug/L
Bromate Dissolved	0.003	mg/L
Bromide Dissolved	0.05	mg/L
Bromochloroacetic acid	1.00	ug/L
Bromodichloromethane	0.50	ug/L
Bromoform	0.50	ug/L
Bromomethane	0.50	ug/L
BTEX, Total	1.00	ug/L
Carbon Disulfide	0.50	ug/L
Carbon tetrachloride	0.50	ug/L
Chlorate Dissolved	0.1	mg/L
Chloride Dissolved	0.05	mg/L
Chlorite Dissolved	0.2	mg/L
Chlorobenzene	0.50	ug/L
Chloroethane	0.50	ug/L
Chloroform	0.50	ug/L
Chloromethane	5.00	ug/L
Cryptosporidium	1.3	oocysts/100L
Dibromoacetic acid	1.00	ug/L
Dibromochloromethane	0.50	ug/L
Dibromoethane	0.50	ug/L
Dichloroacetic acid	1.00	ug/L
Dichlorodifluoromethane	0.50	ug/L
Dichloromethane	1.00	ug/L
Ethanol	250	ug/L
Ethyl Methacrylate	5.0	ug/L
Ethylbenzene	0.50	ug/L
Giardia	1.3	cysts/100L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Haloacetic Acids, total (HAA5)	5.00	ug/L
Iodomethane	0.50	ug/L
m+p-Xylene	0.40	ug/L
Methyl Ethyl Ketone (MEK)	20	ug/L
Methyl Isobutyl Ketone (MIBK)	20	ug/L
Methyl-tert-butyl ether (MTBE)	0.50	ug/L
Monobromoacetic acid	1.00	ug/L
Monochloroacetic acid	1.00	ug/L
NDMA	0.00260	µg/L
o-Xylene	0.30	ug/L
Styrene	0.50	ug/L
Sulphate Dissolved	0.2	mg/L
Tetrachloroethylene	0.50	ug/L
Toluene	0.50	ug/L
Total Organic Carbon	0.5	mg/L
Trichlorfluoromethane	0.50	ug/L
Trichloroacetic acid	1.00	ug/L
Trichloroethylene	0.50	ug/L
Trihalomethanes (THMs), Total	1.0	ug/L
Vinyl chloride	0.50	ug/L
Xylenes, Total	0.50	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